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**INTERNATIONAL BILATERAL TRADE AND INVESTMENT NEGOTIATIONS:  
THEORY, FORMAL MODEL, AND EMPIRICAL EVIDENCES**

**By**

**Erick Duchesne**

**A DISSERTATION**

**Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of**

**DOCTOR OF PHILOSOPHY**

**Department of Political Science**

**1997**

## **ABSTRACT**

### **INTERNATIONAL BILATERAL TRADE AND INVESTMENT NEGOTIATIONS: THEORY, FORMAL MODEL, AND EMPIRICAL EVIDENCES**

By

Erick Duchesne

This dissertation represents a theoretical, formal, and empirical analysis of bilateral international trade and investment negotiations. It focuses on interrelations between negotiation structure and bargaining process. The structure of negotiation is defined in terms of trade interdependence, structure of trade, institutional constraint, political necessity, and societal support. The process of bargaining is illustrated by a Ståhl-Rubinstein formal model, which emphasizes international breakdown costs, domestic costs for delays, and asymmetry of information. The model is tested with an ordered multinomial logit analysis of the United States reliance on Section (Super) 301 retaliation and reciprocity policy instrument. The results indicate that it is a combination of all dimensions of the theory and parameters of the formal model that best explains the outcome of an international bilateral trade and investment negotiation.

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**À la mémoire de mon père.**

## **ACKNOWLEDGEMENTS**

Many friends, mentors, and valued colleagues have provided me with their priceless help in all stages of this dissertation. What first started as a term paper in Prof. Scott Gates' Research Seminar at Michigan State University laid the foundations for this dissertation. Later, I was fortunate enough to be invited to the International Relations Game Theory Summer Program at the Hoover Institution. That is where the enlightening lectures of Prof. Bruce Bueno de Mesquita, Jim Morrow, and Cliff Morgan provided the sparks to pursue a formal study of international trade negotiations. Also at the Hoover Institution, I had the opportunity to meet Prof. Bill Clark of the Georgia Institute of Technology. Bill and I have been corresponding regularly on the nature of international negotiations. These discussions led to a joint paper on an application of the Ståhl-Rubinstein bargaining model to the Canada-United States Free Trade Agreement. I am deeply indebted to Bill for his help with the second chapter of this dissertation.

When this dissertation was in its embryonic stage, I profited from the generous comments of Profs. John Aldrich, Bruce Bueno de Mesquita, Brian Gaines, Bob Muncaster, Dina Zinnes, and all the participants at the Junior Masters Class at the University of Illinois at Urbana-Champaign. Several useful comments also came out of a series of presentations I made at the weekly International Relations seminar at Michigan State University. Special thanks to Scott Gates and Gretchen Hower for organizing the seminar.

Numerous colleagues at Michigan State University lent me a hand at various

stages of the research. Brandon, Bryan, Roger, Sara, Sugato, be assured of my lasting love and friendship. I would also like to thank Prof. Anthony Flemming-Blake and my good friend Percy "Goatman" Hamming, without whom this dissertation would have been as easy to read as a chinese manual for miniature models, and Prof. Donald Ipperciel for helping me putting all the pieces of the puzzle together at the formatting stage.

No one deserves more gratitude than Profs. Scott Gates, Gretchen Hower, and Chuck Ostrom for their constant support over the last four years. They all went well beyond the call of duty to supervise my progress. At times, they were my best supporters. At other times, they were my toughest critics. Without them, this dissertation would have never been possible. I owe them a lasting gratitude.

Finally, I would like to express all my love for my mom and my sisters Michelle, Bérangère, Roselyne, Sylvianne, Jacynthe, Hélène, and France for their blind faith in me.

## TABLE OF CONTENTS

|                                                                               |     |
|-------------------------------------------------------------------------------|-----|
| LIST OF TABLES . . . . .                                                      | x   |
| LIST OF FIGURES . . . . .                                                     | xii |
| CHAPTER 1                                                                     |     |
| INTRODUCTION . . . . .                                                        | 1   |
| Dissertation's Goals . . . . .                                                | 1   |
| Plan of Study . . . . .                                                       | 5   |
| CHAPTER 2                                                                     |     |
| STRUCTURE OF NEGOTIATION AND BARGAINING PROCESS . . . . .                     | 17  |
| Theoretical Considerations . . . . .                                          | 17  |
| The essence of negotiation . . . . .                                          | 17  |
| The contextual elements of analysis of<br>international negotiation . . . . . | 22  |
| On the notion of power . . . . .                                              | 23  |
| Foreign policy analysis . . . . .                                             | 27  |
| Domestic/international linkages . . . . .                                     | 28  |
| Putnam's two-level of analysis metaphor . . . . .                             | 30  |
| The elements of analysis of international<br>bargaining process . . . . .     | 36  |
| The Nature of international trade bargaining . . . . .                        | 37  |
| CHAPTER 3                                                                     |     |
| THE STÅHL-RUBINSTEIN BARGAINING MODEL AND PROPOSITIONS . . . .                | 42  |
| The Ståhl-Rubinstein Model . . . . .                                          | 42  |
| Propositions, Model, and Operationalization . . . . .                         | 47  |
| Contextual dimension . . . . .                                                | 48  |
| International . . . . .                                                       | 48  |
| Domestic . . . . .                                                            | 56  |
| Process dimension . . . . .                                                   | 64  |
| Relationship between context and process . . . . .                            | 77  |
| Nature of Outcome in International Economic Negotiations . . . . .            | 86  |
| CHAPTER 4                                                                     |     |
| STRUCTURE OF EMPIRICAL TEST AND HYPOTHESES . . . . .                          | 98  |
| Empirical Test Strategy . . . . .                                             | 98  |

|                                                                                                                   |     |
|-------------------------------------------------------------------------------------------------------------------|-----|
| Method of Analysis . . . . .                                                                                      | 102 |
| Dependent Variable . . . . .                                                                                      | 104 |
| Failure: Challenging European Community export<br>subsidies for barley . . . . .                                  | 105 |
| Nominal success: A GATT illegal ban on imports of<br>cigarettes by the Thai government . . . . .                  | 105 |
| Partial success: Korea's tariffs and quotas on<br>table wine imports . . . . .                                    | 106 |
| Success: Taiwan's import duties on household<br>appliances . . . . .                                              | 107 |
| Independent Variables . . . . .                                                                                   | 108 |
| International dimension . . . . .                                                                                 | 108 |
| Interdependence . . . . .                                                                                         | 108 |
| Trade structure and threat credibility . . . . .                                                                  | 111 |
| Domestic dimension . . . . .                                                                                      | 112 |
| Institutional constraint . . . . .                                                                                | 112 |
| Political necessity . . . . .                                                                                     | 115 |
| Societal support . . . . .                                                                                        | 117 |
| <br>CHAPTER 5                                                                                                     |     |
| EMPIRICAL TEST: SECTION (SUPER) 301 . . . . .                                                                     | 120 |
| Introduction . . . . .                                                                                            | 120 |
| Power and Dependence . . . . .                                                                                    | 121 |
| Structural power . . . . .                                                                                        | 121 |
| Economic power . . . . .                                                                                          | 126 |
| Dependence . . . . .                                                                                              | 128 |
| Empirical Results of Principal Model . . . . .                                                                    | 133 |
| Descriptive statistics . . . . .                                                                                  | 135 |
| Multivariate Analysis . . . . .                                                                                   | 141 |
| Method . . . . .                                                                                                  | 141 |
| Ordered multinomial logit results . . . . .                                                                       | 145 |
| Elements of analysis of theoretical model<br>and parameters of formal model . . . . .                             | 172 |
| From the general to the specific: US bargaining success<br>versus Canada, Japan, and the European Union . . . . . | 178 |
| An Alternate Model of Compliance . . . . .                                                                        | 199 |
| <br>CHAPTER 6                                                                                                     |     |
| CONCLUSION . . . . .                                                                                              | 217 |
| <br>APPENDIX A                                                                                                    |     |
| THEORETICAL PROPOSITIONS . . . . .                                                                                | 227 |
| <br>APPENDIX B                                                                                                    |     |
| DESCRIPTION OF VARIABLES . . . . .                                                                                | 230 |

APPENDIX C  
LIST OF HYPOTHESES . . . . . 235

APPENDIX D  
DATA SET . . . . . 237

APPENDIX E  
CALCULATION OF CASES CORRECTLY PREDICTED . . . . . 243

APPENDIX F  
LOGIT ESTIMATES . . . . . 249

LIST OF REFERENCES . . . . . 253

## LIST OF TABLES

|           |                                                                                            |     |
|-----------|--------------------------------------------------------------------------------------------|-----|
| Table 1:  | Ståhl-Rubinstein Three Rounds Sequential Game . . . . .                                    | 72  |
| Table 2:  | American Institutional Division . . . . .                                                  | 114 |
| Table 3:  | Level of Success for American Negotiators<br>When Using Section (Super) 301 . . . . .      | 123 |
| Table 4:  | Level of Success For American Negotiators by Targets . .                                   | 124 |
| Table 5:  | Economic Power Hypothesis: Target's GNP . . . . .                                          | 128 |
| Table 6:  | Dependence Hypothesis: Targets' Exports to the<br>United States . . . . .                  | 130 |
| Table 7:  | Dependence Hypothesis: Share of GNP Accounted<br>For By Exports to the U.S. . . . .        | 131 |
| Table 8:  | Summary of Level of Analysis, Elements of Analysis,<br>Parameters, and Variables . . . . . | 134 |
| Table 9:  | Descriptive Statistics . . . . .                                                           | 136 |
| Table 10: | Bivariate Analysis: Table of Means . . . . .                                               | 138 |
| Table 11: | Interdependence Model: Empirical Estimates . . . . .                                       | 146 |
| Table 12: | Interdependence Model: Marginal Impacts of Regressors .                                    | 149 |
| Table 13: | Yearly Economic Data and Yearly Level of Success<br>by American Negotiators . . . . .      | 165 |
| Table 14: | Interdependence Model Performance for Cases<br>Involving Canada . . . . .                  | 179 |
| Table 15: | Interdependence Model Performance for Cases<br>Involving Japan . . . . .                   | 181 |

|           |                                                                                       |     |
|-----------|---------------------------------------------------------------------------------------|-----|
| Table 16: | Interdependence Model Performance for Cases<br>Involving the European Union . . . . . | 182 |
| Table 17: | Assessment of US Bargaining Success Vis-à-Vis<br>Different Targets . . . . .          | 185 |
| Table 18: | Compliance Model: Empirical Estimates . . . . .                                       | 203 |
| Table 19: | Compliance Model: Marginal Effects of the Regressors . .                              | 204 |
| Table 20: | American Institutional Division . . . . .                                             | 232 |
| Table 21: | Data Set . . . . .                                                                    | 237 |
| Table 22: | Interdependence Model: Cases Correctly Predicted . . . . .                            | 244 |
| Table 23: | Null Hypothesis: Empirical Estimates . . . . .                                        | 246 |
| Table 24: | Compliance Model: Cases Correctly Predicted . . . . .                                 | 247 |
| Table 25: | Logit Analysis: Success/Failure . . . . .                                             | 249 |
| Table 26: | Logit Analysis: Failure . . . . .                                                     | 250 |
| Table 27: | Logit Analysis: Success . . . . .                                                     | 251 |
| Table 28: | Ordered Multinomial Logit Analysis With<br>Three Categories . . . . .                 | 252 |



## LIST OF FIGURES

|            |                                                             |     |
|------------|-------------------------------------------------------------|-----|
| Figure 1:  | General Bargaining Model . . . . .                          | 13  |
| Figure 2:  | Contextual Dimension . . . . .                              | 14  |
| Figure 3:  | Process Dimension . . . . .                                 | 15  |
| Figure 4:  | Detailed Bargaining Model . . . . .                         | 16  |
| Figure 5:  | Ståhl-Rubinstein Bargaining Model Under Perfect Information | 90  |
| Figure 6:  | International Dimension . . . . .                           | 91  |
| Figure 7:  | Institutional Dimension . . . . .                           | 92  |
| Figure 8:  | Political Dimension . . . . .                               | 93  |
| Figure 9:  | Societal Dimension . . . . .                                | 94  |
| Figure 10: | Effect of Discounting . . . . .                             | 95  |
| Figure 11: | Effect of Discounting With Different Discount Parameters .  | 96  |
| Figure 12: | Bargaining Model With Asymmetric Information . . . . .      | 97  |
| Figure 13: | Marginal Impact of Trade Interdependence . . . . .          | 210 |
| Figure 14: | Marginal Impact of Trade Interdependence (By GNP) . . .     | 211 |
| Figure 15: | Marginal Impact of Presidential Approval . . . . .          | 212 |
| Figure 16: | Marginal Impact of the Misery Index . . . . .               | 213 |
| Figure 17: | Marginal Impact of Trade Balance (Interdependence Model)    | 214 |
| Figure 18: | Marginal Impact of Targets' Exports . . . . .               | 215 |

**Figure 19:**                      **Marginal Impact of Trade Balance (Compliance Model) . . . 216**

# **CHAPTER 1**

## **INTRODUCTION**

### **I- Dissertation's Goals**

Following Nixon's measures in 1971 and the demise of the Bretton Woods system, the United States gradually shifted from a spirited commitment to multilateral trading institutions to a more aggressive bilateral stance. Also in 1971, The United States experienced its first overall trade deficit of the century. Its declining universal economic clout, a more hands-on policy by the Congress, and dissatisfaction regarding multilateral negotiations are some of the factors that explain why the US turned to a managed-trade strategy, or what was coined by some as "aggressive unilateralism" (Bhagwati and Patrick, 1990). The main targets of the United States' government were its major trading partners: Canada, the European Union, and Japan<sup>1</sup>. While the Reagan administration successfully negotiated an agreement with Canada (CUSFTA) that encompasses most of the financial and commercial interactions between the two countries<sup>2</sup>, its economic relationship with Japan has remained chaotic with accusations

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<sup>1</sup> Almost 50% (37/75) of the cases treated in this dissertation are related to trade relations between the United States and these three targets. This warrants a special attention to these international trade partners.

<sup>2</sup> It should be noted, however, that the agreement, as well as the North American Free Trade Agreement (NAFTA), do not put an end to all trade conflicts between the two neighbors. For instance, at the moment when this dissertation is written Ottawa and

of unfair trade regularly stigmatizing the Japanese, nonetheless sectoral agreements between the parties do occur at regular intervals<sup>3</sup>. In contrast, the U.S. relationship with the European Union seems to be more antagonistic; "fortress Europe" is a catch phrase that has made its way into the corridors of the White House as well as into the hallways of major political science and economics departments across the United States<sup>4</sup>. Yet, economic agreements have resulted from specific negotiations between the EU and the United States, and, despite CUSFTA and NAFTA, trade disputes between Canada and the United States occur periodically.

What can explain such discrepancies in the successes achieved by the United States with its major trading partners? Several hypotheses can be tested. Could these results be a mere projection of the military and/or economic size of the protagonists? Could it rather be a matter of trade interdependence? What about the impact of domestic regimes or partisan trade politics?

This dissertation proposes that one has to delve into negotiation theories to account for such an inconsistency in the results obtained by the American negotiators. By turning to the study of the contextual and procedural elements of negotiation, not only can we shed light on these bilateral economic encounters, but we can also gain insight

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Washington are still embroiled in vigorous discussions regarding salmon fishing on the West Coast.

<sup>3</sup> One of the most notorious case concerns negotiation over supercomputers and satellites (Bayard and Elliot, 1994, chapt. 5; Office of Technology Assessment, 1991; Tyson, 1992). These, of course, are not unique cases since this dissertation treats twelve different cases of trade conflicts with Tokyo.

<sup>4</sup> In fact, 29% (22/75) of all cases treated in this study include trade conflicts between the United States and the EC or an EC member.

into the process of negotiation itself.

The general aim of this dissertation is to develop a framework for a theory of international negotiations. The next step is to develop a formal model that accounts for the main elements of the theory. Finally, the theory and model must be tested statistically on a large number of cases. To reach these goals, this dissertation examines some political and economic factors, domestic as well as international (negotiation context), that influence how the negotiators voluntarily distribute the proceeds from international trade and investment cooperation (bargaining process). The crux of the argument is that international and domestic contexts of the trade relationship between two nation-states alter the process of negotiation, which, in turn, affects the respective bargaining leverage of the state actors in an international trade and investment negotiation (see Figure 1)<sup>5</sup>. Eventually, the outcome of negotiation itself is dependent on these respective bargaining leverages. Even though all these dimensions are significant, by themselves, they have only limited explanatory power; it is only through a thorough examination of the interaction between these dimensions that we can start uncovering the nature of the international negotiation process. My analysis shall not be static, but dynamic. Henceforth, we need to tackle all the questions enumerated above at once. By concentrating on only one or two aspects of trade politics, we may mistakenly misperceive the tree from the forest, thereby presenting a flawed picture of international trade negotiations.

This dissertation provides a first step in this direction. Nonetheless, it is still a very important step. This dissertation constitutes the first study that attempts to move

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<sup>5</sup> All figures are listed at the end of their respective chapter.

from a theory of international trade negotiations to a formal model depicting the situation and, finally, an empirical test on the theory and model. It is still, however, only a first step, because not all aspects of the framework represented in Figure 1 are treated. In a more realistic environment where negotiators haggle over multiple issues over a long period of time, it makes sense to represent the situation as a repeated game. Under such conditions, the bargaining outcome of a previous encounter may influence the context as well as the process of an actual negotiation. For instance, the impact of the CUSFTA was felt keenly by the representatives of Canada, Mexico and the United States when trying to put forth the NAFTA. Not only were many of the negotiators the same, which help lay the foundation and trust necessary to reach a second agreement, but also much of the political and economic context had already been altered by the CUSFTA. One could even wonder if the NAFTA would have been possible without the CUSFTA? This example tends to demonstrate that the iterated (or repeated<sup>6</sup>) nature of bargaining is an important aspect that all must keep in mind when studying international negotiations. This, however, would add many complexities to a theory and a model which already include many factors. As a first attempt at providing a theory, model and empirical test of international trade negotiations, this dissertation is attentive to the phenomenon of iterated (or repeated) nature of bargaining, even though it will not be explicitly modeled.

For similar reasons, the impact of bargaining process on context of negotiation is not included explicitly in the model. Nevertheless, for future studies, it will become imperative to take into account the fact that the way that bargaining goes has some salient

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<sup>6</sup> The distinction being that in an iterated game the same players meet again in the next round. In a repeated game, only one of the player has to be present in the next round.

influence on the context of negotiation. Examples abound. A government may use international bargaining in order to send a strong message to its domestic constituents. This strategy was used by Gorbachev when negotiating the INF treaty (Eichenberg, 1993) and by Sadat at Camp David (Stein, 1993). Consequently the relationship between domestic interests and the possibilities for international accord is not unidirectional. Chief of governments can use international bargaining as a tool leading to a restructuration of domestic coalitions. In some instances, this influence attempt can be directed towards the domestic society of a target country. This was, according to Odell (1993), one of Reagan's most salient objectives during the negotiations with Brazil regarding its computer policies.

Even if the impact of bargaining outcome on bargaining process and negotiation structure, as well as the impact of bargaining process on negotiation context are two salient segments of a fully developed theory of international negotiations, we must perforce recognize that it would be a momentous and time-consuming task to test their significance on a statistical basis. Consequently, this dissertation pertains to the influence of negotiation context on bargaining process. These two phenomena affect the bargaining leverage of negotiators. Finally, as illustrated by Figure 1, the study establishes a direct connection between leverage and bargaining outcome, such that negotiators with more bargaining clout obtain a larger "share of the pie".

## **II- Plan of Study**

In chapter 2, before getting into the specific nature of international trade negotiations, this study concentrates on the essence of negotiation structure and

bargaining process. This distinction between the two concepts is clearly indicated. The chapter presents a brief review of past and recent studies that put forth a series of recommendations for the study of bargaining processes. A common finding of most of these studies is that the discipline is in dire need of an integrated, "middle range" theory that bridges the gap between technical formal studies developed mainly in the fields of economics that concentrate on the process of negotiation and verbal, descriptive analysis of one or few case studies that turn their attention to the outcomes of negotiation<sup>7</sup>. These studies also point to the cooperative, non-zero-sum, informative, and time-dependent nature of negotiation.

Following those recommendations, I introduce a theoretical foundation of such a "middle range" theory from the perspective of international trade negotiations. First, I present the general armature of my theory by introducing, in broad terms, a description of negotiation structures and bargaining processes and their impacts on the outcome of international trade negotiations. The first leg of the theory is made up of the contextual elements influencing the output of international negotiations (Institutional constraint, political need, societal support, trade interdependence, and trade structure). This is followed by an assessment of the procedural elements of bargaining among international negotiators (Risk attitude, information, delays). The interrelation between "context" and "process" is then explored. Finally, I explore the impact of these two dimensions on

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<sup>7</sup> That is not to say that there is no need for more formal analysis that sometimes provide a useful simplification of the real world, or for detailed studies of single cases that may unveil non-obvious, and sometimes meaningful, elements of analysis that students of negotiation may have omitted previously. As an example, even though they provide a highly stylized treatment of a negotiation outcome, it is hard to deny the consequential contribution of Bueno de Mesquita and Lalman (1992) on the matter.



the bargaining leverage of negotiators, and in turn, how these affect the output of international trade and investment negotiations.

The study then reverts to a more detailed analysis of the negotiation and bargaining, as well as their effect on outcomes. First, the specific contextual elements affecting the output of international trade and investment negotiations (Figure 2) are investigated. There, I make a distinction between domestic and international contextual dimensions. The domestic dimension is subdivided into institutional, political, and societal elements of analysis, while the international dimension is subdivided into the interdependence and bilateral trade structure elements of analysis. For this section, I provide a justification for the choice of these dimensions and relate them to current literature on bargaining theory and international relations. This stage concludes with a claim for the use of the "two levels of analysis" metaphor as a useful representation of the contextual elements of analysis influencing the process and outcome of international trade negotiations.

The next section of chapter 2 focuses on the bargaining process (Figure 3). In other words, my attention turns to alternative demands, concessions and give-and-take processes, which affect a negotiation outcome. Again, I provide a brief discussion of recent studies that have had a direct influence on the theoretical foundation of this study. In this discussion, I conclude that one of the most efficient ways to represent the essence of the bargaining process comes from a sequential representation, generally known as a Ståhl-Rubinstein game, which has been developed in the field of economics since the mid-seventies.

This model is the focus of in chapter 3. The model assumes a certain reification

by treating the two sets of negotiators as two individuals having in front of them several contractual agreements. Both have a strong incentive to reach an agreement, but their interest is not entirely analogous. Given this situation, "What will be the agreed contract, assuming that both parties behave rationally?" (Rubinstein, 1982: 97). It should be clearly noted that this model does not answer the positive question (what is the agreement reached in practice) or the normative question (what is the just agreement), but **what would be the agreement if both sides behave rationally**. This constitutes a notable precision. Given that negotiators in the real world do not always behave as utility maximizers, we can not expect a perfect fit between the formal model and the empirical test. At best, we must strive to obtain the best estimated fit between the two, that is, the best approximation of the "real world". Furthermore, the sequential model accounts for the negotiators' international costs related to a breakdown in negotiations, domestic costs for delaying<sup>8</sup>, and level of information regarding the negotiating strength of their opponent(s). Consequently, the Ståhl-Rubinstein sequential model makes up a nice bridge between the theory of bargaining and negotiation developed in this dissertation and its empirical verification.

Chapter 3 also comprises the main propositions of this research. The first six propositions relate to the structure of negotiation and its relationship with negotiators' bargaining strength: P1) international trade interdependence; P2A) international trade complementarity; P2B) international threat credibility; P3) institutional domestic

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<sup>8</sup> It can be alternatively modeled with a discount parameter. Indeed, the higher the domestic costs for delaying that negotiators incur the more impatient they become. Hence, the more impatient they become the smaller is their discount parameter, i.e., the more they devalue the future.

constraint; P4) domestic political necessity; and P5) domestic societal support. The next three concentrate on the process of bargaining: P6) international breakdown costs; P7) domestic costs for delays in reaching an agreement; and P8) information about other side's "strength". Finally, the last six purport to the impact of negotiation structure on bargaining process: P9) international trade interdependence and international breakdown costs; P10A) international trade complementarity and international breakdown costs; P10B) international trade complementarity and possibility of reaching an agreement; P11) domestic institutional constraint and information about other negotiators' strength; P12) domestic political necessity and domestic costs for delays in reaching an agreement; and P13) domestic societal support and domestic costs for delays in reaching an agreement. The chapter concludes with guidelines for the appraisal of an international trade and investment bargaining outcome. Falsifiable conditions, as well as indications of how this study could be replicated or applied to cases not discussed here, are presented. A special emphasis will be put on how, specifically, the outcome variable is measured. A more detailed representation of the model is presented in Figure 4.

In chapter 4, I indicate how the theory and model can be applied to examples of international trade negotiations. By fixing its attention on some specific incidents of international trade negotiations, not all aspects of the theory are empirically tested. This derives from a conscious choice. I attempted to develop a theory that can be applied to a wide array of negotiations instances; as general or as specific as possible. At the limit the model introduced in this dissertation could be implemented, with some basic modifications, with any type of international negotiations, including security issues. Here, the focus is rather specific. Consequently, some adaptations of the theoretical

framework were in order. Accordingly, this chapter starts by presenting a "strategy of verification", that is, a presentation of a framework that will be used in the next chapter for the purpose of empirical testing. It uses a data set partially constructed from a research done at the International Institute for Economics on Washington's use of Section (Super) 301<sup>9</sup>. Out of this study by Bayard and Elliot (1993), I selected seventy-five cases of trade negotiations involving the threat of use of reciprocity and retaliation by the United States. Second, I shall indicate the methods of analysis that I intend to use. Since the dependent variable, the level of bargaining success by American negotiators, has four ordinal categories, I chose to test the propositions with an ordered multinomial logit analysis.

Chapter 4 concludes with a description of the variables and discussion of the hypotheses. These variables bridge the gap between the theoretical propositions and the statistical analysis of the American use of Section (Super) 301. In consequence, all hypotheses are organized according to each individual variable and correspond to a contextual dimension of the theory (Figure 2). First, the trade interdependence dimension is represented by the ratio of a target's share of US overall export over a similar measure for the American's share of a target overall exports (DEP). Another measure of this dimension accounts for the ratio of United States' share of gross national product (GNP) accounted for by exports to a target over a target's share of GNP accounted for by exports to the United States (DEPGNP). Second, the bilateral trade structure (or American threat credibility) dimension is represented by a dummy variable

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<sup>9</sup> Note, however, that many variables used in this dissertation were not selected by Bayard and Elliot.

representing the type of issue involved in the dispute (ISSUE). Third, the institutional constraint dimension, in regards to the United States, considers the level of division among its domestic political institutions (DIVIDED). For a target, this dissertation borrows and reorganizes some data from the POLITY III project to appraise its level of domestic institutional constraint (INSCONST). Fourth, the value of the contested goods (DVCGOOD) and a misery index ( $\text{Unemployment} + \text{Inflation} = \text{MISERY}$ ) are used to calculate the United States' economic necessity. The utilization of a threat of retaliation or a direct retaliation by Washington (RETAL) corresponds to the political necessity dimension. Fifth, and finally, the societal dimension is enacted by the trade balance between the United States and a target (TBAL) and American presidential approval (APPROV). These ten variables and hypotheses are statistically tested in the next chapter.

Chapter 5 pertains to the results of the statistical analysis. It starts with some basic test of alternative theoretical explanations of outcomes of international trade negotiations (Structural power, economic power, and dependence). It is followed by the results of some simple descriptive statistics and an ordered multinomial logit analysis for the previous theoretical propositions and hypotheses. Six of the ten variables included in the equation show a good significance. The marginal, individual, impact of each of these pertinent variables is also evaluated. A special sections analyze the level of success of American trade officials when resorting to Section (Super) 301 against different targets. Finally, the chapter concludes with an alternative model, based on compliance instead of interdependence, which seems better suited to the specific nature of the data set used for the empirical analysis of outcomes of international trade and investment

negotiations. The implication of the results of the two models is then discussed.

The concluding chapter recaps the main findings of the dissertation. It goes back to the theoretical foundations of the dissertation and assess its usefulness for our comprehension of international negotiations. It also points to its shortcomings and proposes some avenues for future research endeavor.

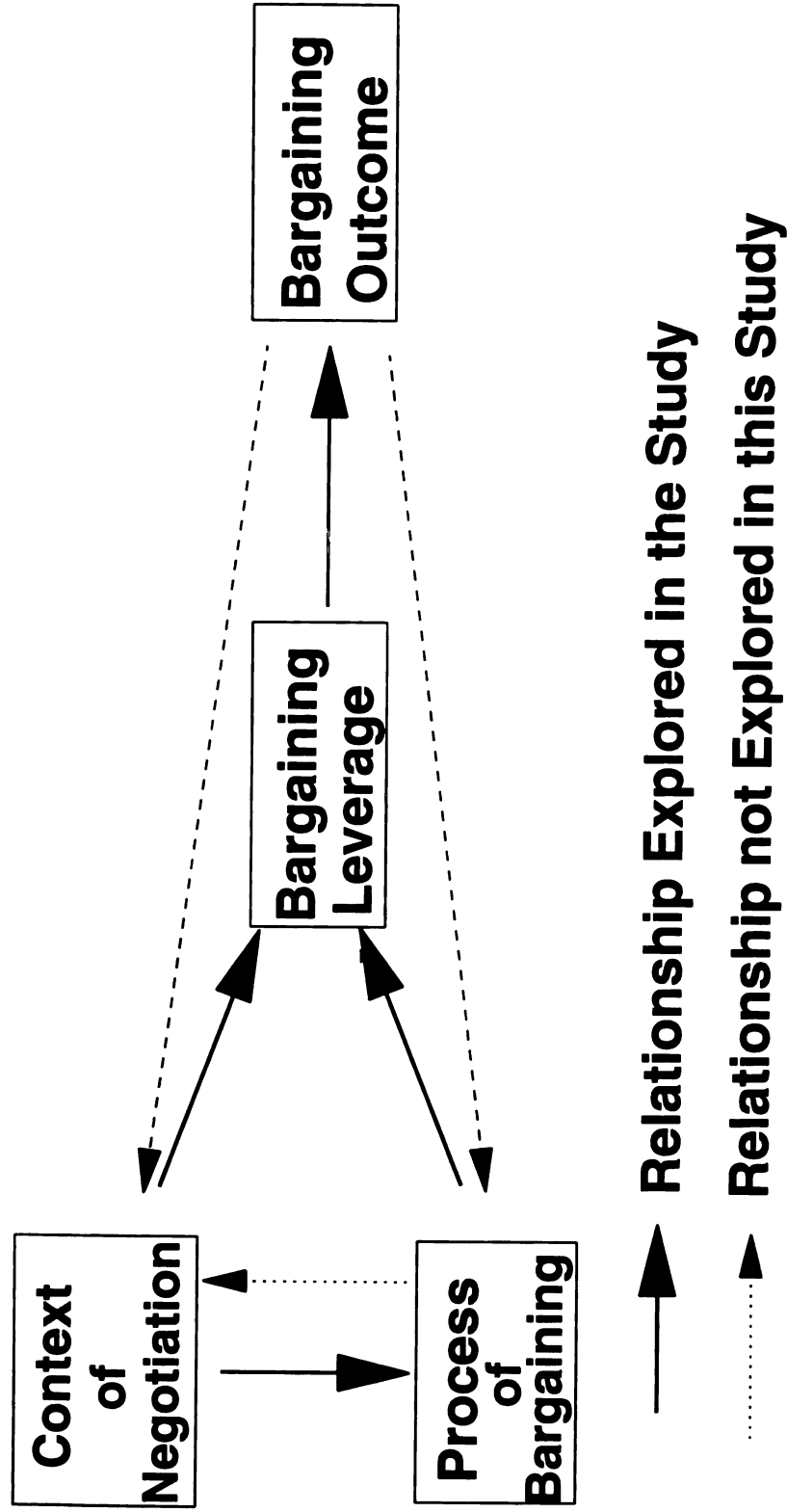


Figure 1 : General Bargaining Model

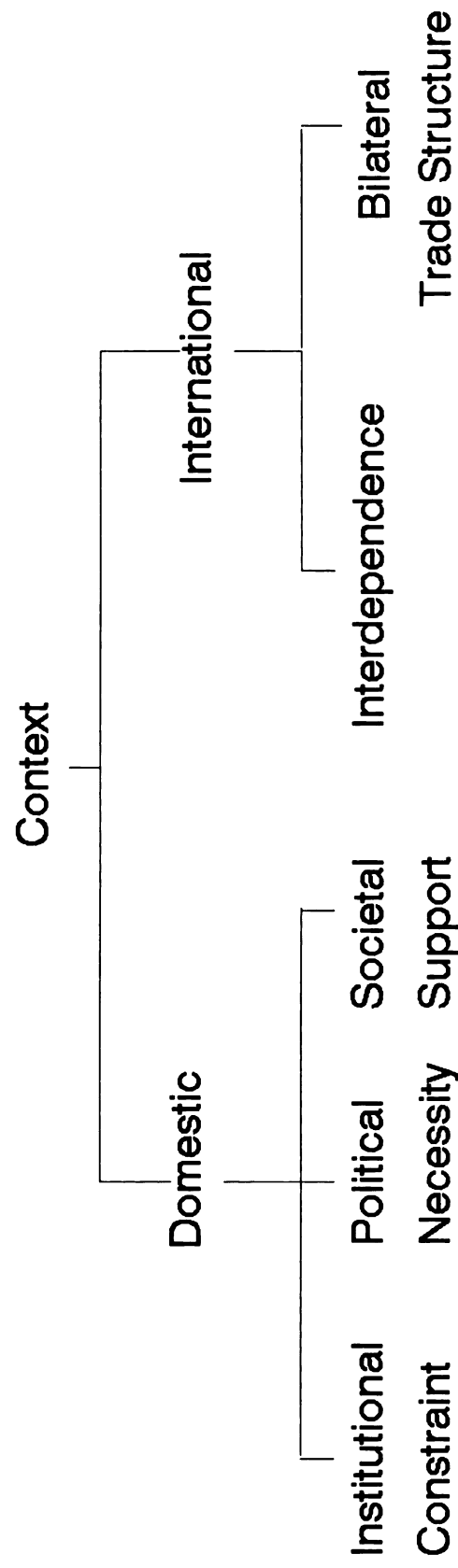


Figure 2: Contextual Dimension



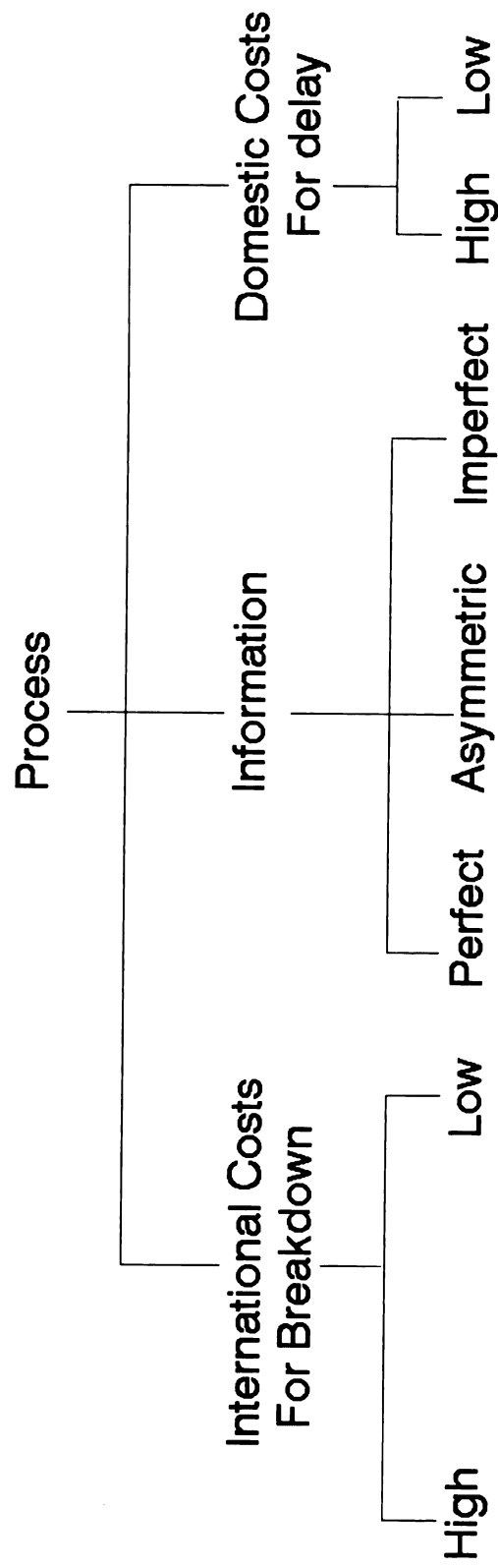


Figure 3: Process Dimension

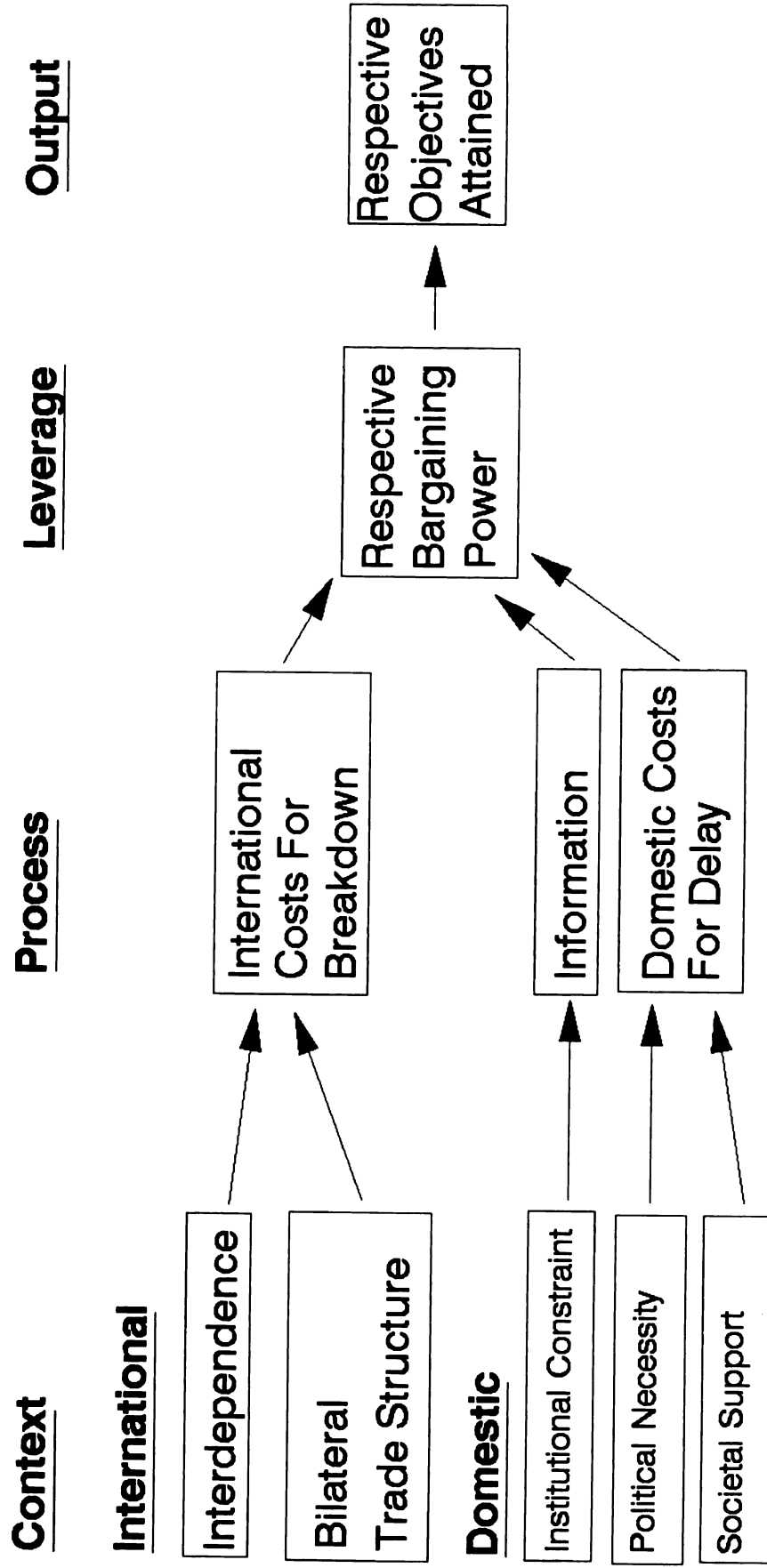


Figure 4: Detailed Bargaining Model

## **CHAPTER 2**

### **Structure of Negotiation and Bargaining Process**

#### **I- Theoretical considerations**

##### **A) The Essence of Negotiation**

It is commonplace to use the terms "negotiation" and "bargaining" interchangeably. In an effort at clarification, I adopt John Cross' (1969: 7) definitions: "[T]he term "bargaining" will refer to the process of demand formation and revision which provides the basic mechanism whereby the parties converge toward an agreement, while "negotiation" will refer to the whole situation within which bargaining occurs." It should be clear to the reader by now that this study is not only interested in bargaining *per se*, but also concerned with the whole negotiation procedure. This distinction is more than trivial. If I had been only preoccupied with the bargaining aspect of international trade negotiations, this study would start with the Ståhl-Rubinstein model, without paying any attention to the structural and contextual elements of analysis justifying the magnitude of the parameters of the formal model.

According to I. William Zartman, the great majority of negotiations studies, "from the implicit wisdom of De Callières [1716] and De Felice [1778] to the explicit analysis of Nash [1950, 1953] and Rapoport [1960]," imply the existence of common and conflicting goals among parties (1979: 9). Indeed, if the parties had only conflictual

goals, there would be no need for negotiations, and there would be no process to evaluate<sup>10</sup>. Anytime we observe the beginning of a negotiation process, "there is *prima facie* evidence of at least one common goal (the agreement itself)" (Zartman, *ibid.*). On the other hand, if the situation were one of common goals only, it would be only a matter of finding the optimal agreement. The players would willingly offer all the information necessary to the other parties, in order to reach an agreement as soon as possible. In such a case, the bargaining process could be represented as a coordination game and better be demonstrated by cooperative game theory. It would be only a matter of "discovery" of the common interest<sup>11</sup>.

Beyond the category of things that no one cares about, there are complementary interests of the bargaining parties. These are goods that are valued more by one player than by the other. These values are the core of the negotiating process, because they can be exchanged as tradeoffs against each other during the bargaining process (Zartman, 1976: 9). In game theoretic terms, we sometimes refer to these values as side payments.

The meeting point of divergent, convergent, and complementary interests is seen in this study as the intersection of policy options. A value can be assigned to each of

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<sup>10</sup> Even in the case where the United States, using Section 301, threatens international actors of unilateral retaliation, common goals always exist, such that the threat can be seen as the starting point of the bargaining process. On the subject, see Bayard and Elliot (1994).

<sup>11</sup> This should not be interpreted as saying that the "search" and "discovery" of common interest does not exist or is non-interesting. It is an important aspect of negotiation. A bargaining process can be productive. For instance, classical liberal economists, from David Ricardo to Milton Friedman, claim that "freer" international trade leads to an increase of the "pie of international goods" available to all nation-states. I must mention, however, that while this model concentrates on the distributive aspects of bargaining, it starts with the premise that the process of negotiation itself creates opportunities for a productive enhancement of the amount of goods to be distributed.

these intersecting policy options. Again, we must turn to the wisdom of Zartman to capture the essence of the allocation and reallocation process in a bargaining encounter:

Although it is in both parties' interest to reach agreement on an acceptable reallocation of values, it is also the interest of each to end up with as much of the pie as it can or to give up as little and gain as much as possible, depending on whether the reference is to a single contested value or to several exchangeable or complementary values (1976: 9).

This depiction of the bargaining process denotes the non-zero sum nature of negotiation. In other words, if an agreement is reached, both parties win. Negotiation, therefore, can be partially interpreted as a cooperative enterprise; that is a situation in which all parties reap benefits from reaching an agreement (Cross, 1969: 4). Agreement is Pareto-superior to nonagreement. In formal analyses, the non-agreement outcome is conveniently set at zero. In empirical studies, this does not have to be the case. The non-agreement outcome must take into account the possibility of retaliation. Sometimes the threat of retaliation is implicit and we refer to it as "tacit bargaining"<sup>12</sup> (Downs and Rock, 1990); at other times the threat is very explicit and specific, such as when the United States threatens to use Section 301<sup>13</sup> (Bayard and Elliot, 1994). Furthermore, to yield a non-zero sum, "either things must be valued differently by the different parties

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<sup>12</sup> This notion of tacit bargaining should not be confused with Schelling's (1960: 54-80) more specific interpretation. For Schelling tacit bargaining refers to a process in which the negotiators select in isolation their possible agreement points. When no coincidence in their choices occurs, no cooperation is achieved at all.

<sup>13</sup> This element is introduced in the model later through the players international costs regarding a breakdown in the negotiations.

or there must be side payments that are newly available because of the agreement" (Zartman, 1976: 10). Hence, in order to reach an agreement, each party must be willing to give up some of its less valued items in exchange for things it prizes more. It may be also willing to give up some of its valued items in order to get the remainder of the items.

Even in the face of the mixed-motive nature of the process, if negotiation were only a matter of finding an acceptable reallocation of a given set of values between the owners, we would only need to construct two simple utility scales indicating how much worth the players associate with each outcome, and this would lead to a knife-edged effect of negotiation (Zartman, 1976: 13). In such a scenario, the result would be the Nash solution, located at a point where the product of what the parties value is the greatest. However, given it is in the players' interest to obtain more by giving less, it is also in their interest to control the information regarding their utility list or function (Homans, 1961: 61). It is also in their own interest to inflate the value they associate with each item being negotiated. This explains why in a negotiation encounter, the parties have tendency to go from some extreme points, where they tend to put a high value on all or most items being negotiated, and gradually converge towards a "middle ground" that better reflects their true utilities. Regardless of their effort to hide their true preferences, structural elements may favor one player over the other when time comes to hold on private information<sup>14</sup>. Thus, the negotiation encounter must be seen as a process occurring under imperfect information, where the respective parties control the

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<sup>14</sup> For instance, I argue below that the institutional constraints on the ratification process of an international economic agreement plays a role regarding the capability of players to hide their true preferences.

veracity and the amount of information conveyed to other parties. Given its "communicative" nature, the exchange of partial information is at the core of the negotiation process.

In a certain sense, information is power. In the verbal and tacit exchanges that comprise negotiation, a player's goal is to manipulate information in order to affect the other player's evaluation of the values involved, in such a way "to bring about convergence or agreement at a point more favorable to one side than the other" (Zartman, 1976: 15). Information is power, such that it can be defined as the "volitionally controlled ability of one party to produce such movement or re-evaluation on the part of the other party, often more generally as the ability of one party to cause another behavior in an intended direction" (Zartman, 1976: *Ibid*).

The ability to use information as a source of power may often depend on the skills of the negotiators. In this study, I do not use such an approach. The power of information is derived out of the internal structure of the government and its relationship with the civil society. These factors constitute the resources that the negotiator can have in regard to power. That is to say that information as power is relational; depending on the respective structure of government and state/civil society relationship, some negotiators may hold more informational power than others.

Another very important characterization which I apply to the bargaining process is that it is fundamentally time dependent. There are costs associated, in terms of dollars (or utilities) as well as in terms of postponement of the consumption of the good being negotiated, with the bargaining process. It is these costs that motivate the whole process; it does not only matter that an agreement is reached, it also matters when an agreement

is reached. Because it is widely acknowledged that there are some potential benefits associated with an agreement for all parties (otherwise there wouldn't be any negotiation), all players prefer to reap the benefits earlier than later. In other words, future benefits are discounted from the present. Furthermore, "there is a fixed cost of bargaining which recurs in each time period" (Cross, 1969: 13). Bargaining itself is costly. In the model introduced below, a primordial aspect influencing the distribution of the benefits accruing from an agreement is that the negotiators need not face the same costs for a delay in the negotiations. A negotiator who is more patient, that is, whose costs for delay are lower, is more likely, *ceteris paribus*, to reap more profits out of the agreement.

It appears unrealistic to build a deterministic model, with knife-edged outcomes, that takes into account all the intricacies and complexity of the bargaining process. What I propose in this dissertation is an ideal-type, a certain representation of the "real world," as well as a committed effort to build a model that represents this template of the empirical world. In the pages that follow, I strive to identify meaningful and testable--even if not always easily measurable--dimensions of negotiations structure and bargaining process.

## B) The Contextual Elements of Analysis of International Negotiations<sup>15</sup>

The purpose of this section is to yield an explanation of the research problem that frames my theoretical analysis and to place this project into the general literature on the

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<sup>15</sup> For excellent discussions of the structure of the bargaining situation, see Roth (1985) and Binmore and Dasgupta (1987).



level of analysis of international interactions. Waltz's (1959) three-images metaphor is among the first representations of international interactions to reveal the complexity of international phenomena. Nevertheless, despite a recognition of the multi-faceted nature of international relations, much of the discipline is dominated by a structural notion of power revolving around such theories as balance of power (Claude, 1962; Haas, 1953; Singer, Bremer and Stuckey, 1972), hegemonic leadership (Gilpin, 1981; Thompson, 1988), and power transition (Organski, 1968; Organski and Kugler, 1980). Consequently, I now turn my attention to the saliency of the concept of power.

i) *On the Notion of Power*

Despite the absence of a clear consensus regarding its meaning, the notion of power is the core concept for realists as well as neorealists. In a large part, given that a political policy seeks either to keep power, to increase power, or to demonstrate power (Morgenthau, 1985), it is generally assumed that an actor with the larger amount of power has the advantage over an actor with a smaller amount. In other words, by classical "power politics" theory, the stronger actor with the greater capabilities, will by definition prevail in any encounter (military or otherwise) with a weaker actor. Negotiation theorists who adopt such relational conceptualization (Iklé, 1964; Lall, 1966) do not see power acting in any different way in international negotiations than in any other aspect of international interactions (Habeeb, 1988:10). For them, the stronger state, by tautological definition, will win in a bargaining situation (ibid.:3).

Unfortunately, even if it seems that the notion of power would lead us to a good understanding of bargaining outcomes, the world is strewn with counter-intuitive cases

where the party that is believed to be weaker, measured through military and other classical elements, had the upper hand in an international encounter or at least did not fare worse than its opponent (Habeeb, 1988; Paul, 1994; Wriggins, 1987; Zartman, 1987)<sup>16</sup>. Similar results are derived from episodes of international trade negotiations. For instance, John Odell (1993) finds that the United States was more successful when negotiating with the European Community regarding its decision to elevate trade barriers on U.S. feedgrains after Portugal and Spain joined the EC in 1986 than it was when dealing with Brazil when the Latin American country introduced a national program designed to promote its national computer industry. Without any doubts, any classical aggregate measure of power<sup>17</sup> would assign greater power to the European Community than it would to Brazil.

Despite their widespread use, there is little consensus on the essence of power relationships. The tautological nature of a definition of power as the ability of one actor to get another actor to act differently without the actions of the former<sup>18</sup>, is due to the "failure to distinguish clearly enough between a bargaining outcome and the bargaining process which leads to it" (Cross, 1969: 17). A definition of power can indeed only take us so far as the starting point if it only concentrates on the description of the outcome of a bargaining episode. A more helpful definition of power should concentrate on the

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<sup>16</sup> The best-known examples being of course the Vietnam War and the Soviet-Afghan Conflict.

<sup>17</sup> See for instance the assessments of aggregate power by Cline (1975), Jones (1954), Knorr (1970: chaps 2-3), and Organski (1968: chaps 6-8).

<sup>18</sup> This is paramount to Dahl's classic definition of power as "A's ability to get B to do something that B would not otherwise do" (1957: 201).

determinants of the outcome, not the outcome itself. This explains why this study focuses on the structural and contextual elements of analysis that emphasize the ability of one player to impose heavy costs for the burden of delay in the negotiation on the other player, coupled with its own insensitivity to costs imposed on oneself. The difficulty, then, is to uncover and select the proper elements which are appropriate for a fruitful definition of the notion of power. That's the task that is left for remainder of this dissertation<sup>19</sup>.

It is indeed meaningful to incorporate a notion of power in any conceptual framework interested in the study of international interactions in general, or international bargaining outcomes in particular<sup>20</sup>. The idea of an aggregate structural power can be helpful when one is interested in defining a power structure of the international system into great, medium, and weak powers. It can be useful in providing an overall picture of the actors' positions in a self-help international system (Waltz, 1979), but it is of less use when applied to international negotiations. Using aggregate structural power for such matters assumes highly fungible power resources (Baldwin, 1979:192). Yet power may

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<sup>19</sup> One element that is left out in this study is the idiosyncratic nature of the strategy used by negotiators. Its role is important, as demonstrated by Lax and Sebenius (1986) and Zartman and Berman (1982), but it is very difficult to transpose its influence systematically to a large number of cases. Nevertheless, we should keep in mind that the tougher the negotiators, the greater their opportunity to get an agreement close to their position, but the less their ability of getting an agreement at all. Here, I take such a factor into account only implicitly by assuming that the "toughness" of a negotiator is derived from institutional constraints, political necessity, domestic support, as well as international context, not from personal attributes.

<sup>20</sup> Such conceptualization of power has been used successfully to forecast negotiation outcomes. See, *inter alia*, Bueno de Mesquita, Newman, and Rabushka (1985). It should be noted, however, that in their forecasting approach, these authors attribute a large influence to the domestic bargaining setting on the outcome of an international confrontation. In this sense, it is not so different than the approach of this dissertation.

not be highly fungible (Ibid:165; see also Goldmann, 1979; Hart, 1976; Hoffmann, 1975; Sprout and Sprout, 1965). Keohane's (1989:62) "modified structural research program" implies that structure of influence that works in one area may be irrelevant in another (See also Keohane and Nye, 1977:46-54). National resources, in order to have significant influence in bargaining, must create options that are useful in the context of a specific issue-area that nations face (Lockhart, 1979:92; Zartman, 1991: 68). In consequence, even though aggregate structural power should not be considered as a "meaningless" concept, as stated by Baldwin (1979:193), it should be seen as no more than the foundation of an actor's strategy in a specific bargaining situation (Habeeb, 1988:18; Lockhart, 1979: 90).

Such strategy may involve an attempt by strategists to link one particular issue with other issue areas so as to achieve maximum advantage from their whole array of international interactions (Tollison and Willett, 1979). Conversely, according to the interdependence paradigm proponents, it is rather the power balance in a specific issue-area, not its aggregate nature, that determines the outcome of interaction in that area. It seems clear to them that different issue areas have different political structures that may be more or less insulated from the overall distribution of military and economic capabilities (Keohane and Nye, 1977:50). This research adopts some of the neoliberal claims stated above by assuming that the structure of international trade between negotiating nations is among the principal elements of analysis influencing the bargaining outcome of international trade and investment negotiations. This representation of issue-specific power is included further in the formal analysis of international trade negotiations.

## ii) *Foreign Policy Analysis*

Another shortcoming of the neorealist enterprise is its reification of the state. It is a foregone conclusion that a scientific look at "inside the state" is necessary to acquire a better knowledge of international interactions. The long tradition of Foreign Policy Analysis (FPA) clearly points in this direction. In his seminal "pre-theories and theories of foreign policy", James Rosenau (1966) was among the forerunners to recognize the need for a multilevel and multicausal explanation of international relations in general, and foreign policy in particular (see also Snyder, Bruck, and Sapin, 1954 and 1963; Sprout and Sprout, 1956, 1957, and 1965). Valerie Hudson (1995) provides a comprehensive, but still incomplete, overview of an impressive theoretical and empirical progress in FPA in last thirty-five years. The range of research goes from psychological explanations (de Rivera, 1968; George, 1969; Singer and Hudson, 1992) to the presidential use of force (James and O'Neill, 1991; Ostrom and Job, 1986), from bureaucratic interpretations (Allison, 1971; Halperin, 1974; Hilsman, 1987) to cultural analyses of foreign policy (Almond and Verba, 1963, Pye and Verba, 1965; Sampson, 1987). These constitute only a very small subset of the research in FPA, but they share a common goal with this study and other literature<sup>21</sup> in the field not mentioned here; an assumption "that the source of much behavior and most change in international politics is human beings, acting individually or in collectivities" (Hudson, 1995:210).

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<sup>21</sup> Although not all share the behavioral assumption of other non-systemic (or partially non-systemic) explanations of international interactions, such as expected utility (Bueno de Mesquita, 1981), crisis decision-making (Lebow, 1981; Snyder and Diesing, 1977), regime type (Doyle, 1986; Maoz and Abdolali, 1989; Rummel, 1983; Russett, 1990), public opinion (Morgan and Bickers, 1992; Shapiro and Page, 1988), and state strength (Katzenstein, 1978; Krasner, 1978), have been prominent in the international relations literature.

Yet, despite impressive results, an analysis of international politics that focuses only on domestic factors may suffer from the same shortcomings as structural explanations. For instance, any consequential empirical foreign policy research needs to turn its attention to "low politics" transactions like trade flows (Schrodt, 1995). But just as importantly, as James Rosenau suggested nearly thirty years ago with his elaborate taxonomy of "linkage politics" (1969, see also his 1973), the interrelation between domestic politics and the international environment needs to be assessed theoretically and empirically by the political science academic community<sup>22</sup>.

### iii) *Domestic/International Linkages*

Generally, interpretations of the linkage between domestic and international politics have been cast in terms of the domestic causes and international effects, as in Waltz's (1959) "second image" (See also Hagan, 1986; Morgan and Campbell, 1991; Morgan and Bickers, 1992; Ward and Widmaier, 1982)<sup>23</sup>. Reversed explanations have

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<sup>22</sup> Robert Putnam affirms that Rosenau's effort "generated little cumulative research, except for a flurry of work correlating domestic and international 'conflict behavior'" (1988:430). I have expressed, above, my skepticism regarding the linkage between issue-areas, but I believe that linkages between domestic and international politics can lead to fruitful developments. In fact, Putnam's two-level of analysis metaphor is a prime example of such flourishing results in the fields of international relations and comparative politics.

<sup>23</sup> Hagan argues that domestic conflict affects the degree of independence, commitment, and intensity in a nation's foreign policy behavior, but not always its involvement in foreign conflict (1986: 291). Morgan and Campbell (1991) demonstrate that for major powers (including nondemocracies), higher levels of decisional constraint lead to a lower probability that conflicts will escalate to war. They do not find such correspondence for minor powers. Morgan and Bickers (1992) add to Morgan's previous work that state leaders will treat an erosion of domestic support more seriously (especially for actions short of war) when it comes from within segments of society that are critical of the leader's ruling coalition than when it comes from other domestic

focused on international causes and domestic effects. For instance, Wilkenfield and Zinnes (1973) utilized factor analysis to propose a Markovian interpretation indicating that the level of foreign conflict behavior affects the changes or transitions over time between the levels of domestic conflict behavior. Studies on the impact of the international environment on domestic politics gained some theoretical standing later with Gourevitch's "second image reversed" (1978). More recently, case studies representing diverse methodological approaches, have displayed a theoretical sophistication on the international-to-domestic causal connection by concentrating on the impact of the international economy on domestic politics and domestic political economy (Alt, 1987; Evans, 1979; Gourevitch, 1986; Katzenstein, 1985). However, as noted by Putnam (1988: 433), these works elude any type of reciprocal causation.

Attempts have been made to look at the simultaneous and reciprocal cause/effect relations between domestic and international environments. Works on regional integration have focused mainly on the impact of parties and interest groups on the process of European integration, but they have also recognized, with the notion of "spillover", the feedbacks between domestic and international developments (Deutsch et al., 1957; Haas, 1958). Later studies in the domain shift the attention to the evolution of the new supranational institutions and were the forerunners of transnationalism studies,

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groups. As for Ward and Widmaier (1982), they do not find any evidence to support the notion that as a consequence of high levels of domestic turmoil and conflict, a nation-state will export foreign conflict behavior in the form of involvement in serious dispute. In sum, even with the bulk of studies in the domain, the state of discipline shows only mitigated support for externalization of moderate internal conflict to the political use of force abroad ("diversionary theory of war"), and only for a short-term period ("rally-around-the-flag" effect). For review articles see Levy (1989), Stohl (1980), and Zinnes (1980).

especially through the analysis of international regimes (Krasner, 1983). Unfortunately, this again, diverted the attention from domestic factors. On a more theoretical level, the "agent-structure" connection have been explored (Carlsnaes, 1992; Dessler, 1989; Wendt, 1987). This line of work suggests that the structure of the international system should be seen as a mean for action rather than only an environment in which action takes place. However, the debate is mainly at the ontological and epistemological level, and a rigorous empirical framework has yet to be provided.

#### iv) *Putnam's Two-Level of Analysis Metaphor*

A more promising area of research stems from Putnam's (1988) two level of analysis metaphor. Putnam's work constitutes an interesting attempt to bridge the gap between domestic and international levels of analysis<sup>24</sup>. He focuses his attention on an important but neglected aspect of international relations theory: international negotiation. At level one, the world of structural realism, there are interactions between international actors. At level two, the world of domestic politics, negotiators are accountable to a wider internal audience. He defines the logic of the two-level game in the following way:

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<sup>24</sup> Even though their work is not specifically about international trade negotiations, Bueno de Mesquita, Newman, and Rabushka (1985), and Bueno de Mesquita (1990) denote that the domestic bargaining setting acts as a salient determinant of the negotiators set of demands in an international encounter. They add also, similarly to Putnam, that the international process determines, often through bargaining, the outcome of an international confrontation.



At the national level, domestic groups pursue their interests by pressuring the government to adopt favorable policies, and politicians seek power by constructing coalitions among those groups. At the international level, national governments seek to maximize their own ability to satisfy domestic pressures, while minimizing the adverse consequences of foreign developments (432).

He adds that the unusual complexity of this game stems from the idea that a rational move at one board may be impolitic at the other board. Consequently, "there are powerful incentives for consistency between the two games" (432).

Putnam's game implies that the possibility of agreement is limited to overlaps of what is acceptable to the winning coalitions (level 2 game) in each of the parties in the negotiation (level 1 game). This area is called a "win-set". Thus by definition, any agreement must fall within the Level 2 win-sets of each party, and the larger the win-sets are, the more likely is an agreement at Level 1. The win-sets are important for two main reasons: First of all, the decision-makers at the Level 1 game have to take into account that they will need a ratification of their agreement. The more formal the ratification process, the more constrained are the decision-makers in their international negotiations. The second reason is "that the relative size of the respective Level II win-sets will affect the distribution of the joint gains from the international bargain" (440)<sup>25</sup>. This last point is fundamental for anyone who wants to understand the logic of the two-level game: the larger the win-set of a negotiator, the more he can be pushed around by the other Level I negotiators. Conversely, a small domestic win-set adds to the negotiation leverage of a negotiator because he can always say that "this proposition looks fine to me, but I will

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<sup>25</sup> This general principle was first noted by Schelling (1960: 19-28).

never be able to have it ratified at home!". Hence, "[a] government that is internally divided is more likely to be able to strike a deal internationally than one that is firmly committed to a single party" (445)<sup>26</sup>.

Moreover, this raises the specter of "involuntary defection" when the failure to ratify an agreement is not due to an "egoist" action in the absence of an enforceable contract, but rather an incapacity to get the domestic constituents to ratify the agreement (438). It is rational for a negotiator to use a "tying hands" strategy, an attempt to constrict his own "win-set," in order to induce other negotiators to compromise at a point closer to his preferences (Moravcsik, 1993: 28)<sup>27</sup>.

The exploitation of asymmetrical information is therefore a key issue. Asymmetrical knowledge about the possibility of ratification makes it possible for a

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<sup>26</sup> Putnam's seminal article and the edited volume that ensued (Evans, Jacobson, and Putnam, 1993) have stimulated a flurry of research, empirical, formal and theoretical, on the causal relationship between the domestic and international environments. Iida (1992b) and Cowhey (1993) have expanded the notion of "involuntary defection". On application to American international trade issues, see Duchesne and Clark (1995), Kraus (1993) and Schoppa (1993), or on the European Union, see Alt and Eichengreen (1989), Huelshoff (1993) and Schneider (1993). For studies on international security issues, see Knopf (1993), Morrow (1991), as well as part II of Evans, Jacobson and Putnam (1993). For theoretical (mostly game theoretic) developments the reader should consult the following: Iida (1991, 1992a), Kilgour (1991), McGinnis and Williams (1992, 1993), Mo (1990, 1993), Pahre (1992, 1993), and Starr and McGinnis (1992). For a similar approach in the area of comparative politics, consult Tsebelis (1990).

<sup>27</sup> Peter Evans (1993: 399) indicates that the strategy of "tying hands" is infrequently attempted and usually not effective. He adds that the strategy suggested by Schelling is logically plausible "but lacks efficacy in practice." Evans makes a good point. However, it may be true that the strategy is rarely used purposely, but the fact remains that the perception of a constricted "win-set" for the other side's negotiators may have an effect on the bargaining process. For instance, when negotiating with their American peers, Canadian negotiators were worrying about the ratification role of U.S. Congress leading to the CUSFTA agreement (Hart, 1994: *passim*). This, in turn, may have added to the American's bargaining clout.

negotiator to use deliberate misinformation as a negotiation tactic<sup>28</sup>. This asymmetry of information regarding the chance of ratification of an agreement is often derived from the domestic institutional structure of government. For instance, the role of Congress as the "bad cop" during the CUSFTA negotiations with Canada, may have put the American negotiators in the driver's seat. There was little doubts in any American negotiator's mind that an international agreement would be ratified by the Canadian Parliament, while in a Canadian negotiator's mind there was always some doubts about the true preferences of the American Congress (Duchesne and Clark, 1995). Therefore, this seems to indicate that the domestic institutional structure of ratification of an agreement is a driving force behind the negotiation strategy and leverage of respective statesmen in an international negotiation.

Transnational linkages are another important aspect of the two-level of analysis metaphor. As Andrew Moravcsik (1993: 15) puts it, "[t]he statesman can also target policies directly at domestic groups in foreign countries, seeking allies 'behind the back' of his international counter part." Yet, a statesman does not always have to launch a "covert" operation to facilitate his task. Often, an international alliance is natural. John Odell (1993), for instance, notes that an important reason why the United States had difficulty imposing sanctions on Brazil after it decided to put forth a national program supporting its computer industry at the expense of foreign firm in 1985, is that large American multinational corporations in the computer industry had already impressive investments in the Latin American country. That natural alliance created a "negative

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<sup>28</sup> For a skeptical view regarding the ability to deliberately use deception in an international setting, see Bueno de Mesquita and Lalman (1990).

reverberation" that put the American negotiators at a certain disadvantage vis-à-vis the Brazilians.

A large part of this analysis constitutes an effort to model international negotiations by assessing the interaction between domestic and international elements of analysis. Thus, the main question is not to wonder if a theory of international trade negotiation should start from an international or domestic point of view, but to strive to provide a framework that encompasses and pays attention to the interrelation between the two levels of analysis. Therefore, the elements of analysis included in Putnam's metaphor are a driving force behind the model of international trade and investment negotiations that I introduce below. Besides the influence of the size of the win-set, the possibility of involuntary defection, and transnational linkages, Putnam's model denotes the importance of domestic preferences, coalitions and institutions, the negotiators strategies, as well as the relevance of uncertainty about the other negotiators preferences<sup>29</sup>.

These structural elements also correspond to the essence of negotiation introduced earlier. First, the two-level of analysis metaphor, through its emphasis on domestic preferences accounts for the three types of goal--conflicting, common, and complementary--pursued by the statesmen. Second, the convergence of respective policy options can be studied according to the respective win-sets of the negotiators. This, in turn, is an aspect of this research that I will consider below when I examine the nature of the outcome of an international trade and investment negotiation. Third, through

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<sup>29</sup> These factors will be discussed further, as they are an integral part of the research design of this dissertation.

transnational linkages and reverberation, the two-level of analysis metaphor informs us on the specificity and credibility of the threats that actors may choose to use during an international meeting. Fourth, and finally, the important concept of information as relational power is derived from the institutional domestic structure of government and associated with the possibility of voluntary or involuntary defection. It is therefore my contention that the two-level of analysis metaphor is an adequate representation of the structural nature of international trade and investment negotiations.

In the model that follows, the logic of two-level games is also used to depict the relationship between the context<sup>30</sup> and process of international trade negotiations. Putnam's metaphor provides the theoretical backdrop used not only to provide a better understanding of the contextual dimensions of international trade negotiations, but also to demonstrate how the context affects the process of international bargaining.

The model that ensues is not, however, a straightforward application of the two-level game metaphor. If it was, it would be concerned not only with the effect of domestic policies on the outcomes of international bargaining, but also with the consequence of international moves on the ability to achieve domestic goals. The latter strategy, called "synergistic issue linkage" by Putnam (1988: 447-48), more precisely, constitutes an attempt by a statesman to "gain approval for an important domestic measure by linking it to an attractive international agreement" (Moravcsik, 1993: 25). This strategy is not explicit in the model used here. The "dependent" variable being the outcome of international trade negotiation; special attention is not paid to the effect of

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<sup>30</sup> Note however that in this case the context of the international negotiation is not derived uniquely from domestic factors. The nature of the trade relationship between the trading nations is another important contextual element of analysis.

such an international negotiation outcome on the future domestic coalition formation. It is nevertheless acknowledged that statesmen when negotiating an international trade agreement keep an eye on the effect of such an international outcome on the domestic coalition formation, and this, in turn, affects directly the bargaining process. Thus, this aspect is modeled explicitly in this study. For instance, when negotiating the CUSFTA, Brian Mulroney, for electoral considerations, linked the issue of an international trade agreement with his forthcoming attempt at reelection (Duchesne and Clark, 1995). The general model that I propose takes into account how such electoral considerations<sup>31</sup> affected how the Canadian government approached the negotiation, but it does not consider the effect of the outcome of the negotiation on the Canadian electoral results.

The nature of international bargaining as a process can then be modeled as a Ståhl-Rubinstein sequential game. So, let's now turn to the process of international bargaining.

### C) The Elements of Analysis of the International Bargaining Process.

The purpose of the previous section was to unveil the structural elements of international negotiations as well as to demonstrate that issues of international trade bargaining are related to mainstream research in international relations. It is unfortunate, however, that international bargaining seems to be studied in some "vacuum," such that the relationships to important issues of international relations and comparative politics is

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<sup>31</sup> It is not, however, included in specific empirical test regarding Section (Super) 301. It is ascertained here that such electoral pressures are only felt in instances of "big", encompassing, international negotiations, such as a trade agreement or the decision to join an international organization.

rarely assessed. Putnam's two-level games -and their "offsprings"- represent a laudable effort attempting to link the two research streams. One of this research's goals is to follow the same path. Also, a good amount of research on international negotiations has been done in the fields of economics or psychology, with a special focus on bargaining process. Consequently, this investigation tries to bridge the gap between those disciplines and political science research.

This section is intended to present briefly the methods of analysis that have been used in the study of international bargaining. This review is far from comprehensive as it only attempt to identify some of the variables that I shall include in the research design of this study<sup>32</sup>.

#### *i) The Nature of International Trade Bargaining*

The bargaining situations of interest to this research are those "in which the ability of one participant to gain his ends is dependent to an important degree on the choices or decisions that the other will make" (Schelling, 1960: 5)<sup>33</sup>. Interdependence among negotiators points to the fact that one actor cannot gain access to the coveted goods without the cooperation of other actors. Consequently, the true nature of bargaining power in international trade negotiations is not that one state can credibly

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<sup>32</sup> For a comprehensive review see Habeeb (1988: chaps. 1-3), Kemper and Kemper (1994: 1-28), Kremenjuk (1991). The most complete bibliography on international negotiation is Lakos (1989).

<sup>33</sup> Alternatively, following Nash we can use the term "bargaining" to refer to a situation in which (i) individuals ("players") have the possibility of concluding a mutually beneficial agreement, (ii) there is a conflict of interests about which agreement to conclude, and (iii) no agreement may be imposed on any individual without his approval (Osborne and Rubinstein, 1990).

deny another state the entire gain from trade, "but merely the difference between the second state's entire gain from trade, and the gains it would receive if the first state exercised its bargaining power over the terms of trade" (Wagner, 1988: 478). Also, in this research, I adopt a variant of the classical liberalist assumption that free trade increases the amount of international goods available to the individual actors (Hirschman, 1945). Therefore, what is negotiated is the division of the surplus created by freer trade. Yet, returning to the section on the nature of international negotiation, we have seen that the negotiators are pursuing different sets of goals. If it was only a matter of finding the optimal intersection of policy options--that is, increasing the pie of international goods through cooperation--, a strict classical liberal world view would indicate the relevant nature of international trade. If international trade was rather a zero-sum interaction that is, the negotiators having only conflicting goals, then a neomercantilist interpretation would be more appropriate. It is, however, the mix of conflicting, common, and complementary goals pursued by the negotiators that makes these strict interpretations of international trade inappropriate.

On one hand, one could be prone to express the opinion that a classical liberal world view better represents the nature of the CUSFTA negotiations. A better look at the CUSFTA informs us about the important conflicting goals pursued by the Canadian and American negotiators (Duchesne and Clark, 1995). On the other hand, we could assume that when the American government threatens to use Section 301, it is a clear expression of aggressive unilateralism, and thus a neomercantilist representation of the situation is more appropriate. Yet, even in these cases, the fact that negotiations take place after the threat is a clear indication that there are common interests in getting an



agreement rather than going forth with the threat. Thus, a neomercantilist interpretation may not be suited even for those extreme cases.

There exists a large consensus regarding this definition of bargaining, but diverse methods, models and theories have been proposed in order to find out which factors determine the outcome bargaining, that is "who gets what." I have indicated earlier that the concept of power was the leading indicator of determining the respective share of the "pie" of international goods (Iklé, 1964; Lall, 1966). These diplomatic historical reports of international negotiation fail to account for those instances when a seemingly "weaker" power has received a larger share of the bargaining outcome (Habeeb, 1988; Odell, 1993; Paul, 1994). Therefore, a model of bargaining must include some factors that contemplate different types of asymmetries in order to explain some of the counter-intuitive cases.

The sequentiality of bargaining is addressed rather effectively by the concession/convergence theorists. They posit that the parties start at some point of stalemate and, in an action-reaction process they converge at a different rate towards an agreement (Bartos, 1974, 1977; Contini, 1958; Cross, 1969, 1978). Even though the convergence theorists indicate that the weaker party concedes more and at a faster rate (Hicks, 1932; Pen, 1952; Zeuthen, 1930), they do not have much to say about what makes the parties concede at a typical rate (Habeeb, 1988: 12). Nevertheless, the concession/convergence theory alerts us to the pertinence of time in any type of negotiation. It points to the proposition that the party whose costs of holding out are

greater generally concedes at a faster rate than his or her opponent<sup>34</sup>. It is my belief that it is through the study of the interaction between structure and process that one can determine the factors that affect the concession rate. The relationship between some structural factors, such as political necessity and societal support, and the concession rate or discount factor will be discussed in the modeling section of this dissertation.

The social-psychological literature on negotiation is oriented towards the behavior and personality traits of the negotiators (de Callières, 1919 (1716); Deutsch, 1973) characterized as "hard-line and soft-line" (Snyder and Diesing, 1977: 308), "interpersonal" and "motivational orientation" (Rubin and Brown, 1975). The general assumption of this approach is that "under conditions of unequal relative power among bargainers, the party with high power tends to behave exploitatively, while the less powerful party tends to behave submissively, unless certain special conditions prevail [specifically, coalition formation by the weak]" (Rubin and Brown, 1975: 199). Again the problem resides with a loose interpretation of the notion of power and the *ad hoc* use of alternative factors [such as coalition formation] to explain bargaining outcomes. These factors should not become part of a model only when they appear useful, but must be an integral part of a better specified model. This means, again, that one must look at the interaction between structure and process to explain the behavioral traits of the negotiators.

Spector's (1978) analysis of "need orientation" points in the right direction. Spector studies the "personal" needs of a negotiator and their influence on the outcome

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<sup>34</sup> This is accounted for by either the discount rate or domestic costs in a Ståhl-Rubinstein sequential bargaining model.

of negotiations. My intent is not to use such a measure in the model below, given its idiosyncratic nature, but to rather focus on the needs associated with the entire negotiating parties. The needs of the negotiating parties, or governments, are associated with their relationship with the civil society. These needs may depend on the concentration of support from the business community and unions, or it can depend on electoral considerations. Furthermore, as indicated previously, transnational linkages and reverberation, may also affect the needs and the specificity of the threats of the negotiating parties. This, in turn, will affect the domestic costs for any delays. For example, a set of negotiators representing a country and, more that often, a single party, that needs an agreement to enhance its electoral position on the domestic checkerboard, will tend to face higher costs associated with a delay in the negotiations. In other words, the negotiators will tend to accept a "suboptimal" agreement in order to avoid a delay that might jeopardize their electoral chances. The set of negotiators that does not face such an electoral constraint will tend, *ceteris paribus*, to be more patient, and will use a more aggressive strategy to get to a deal that looks more optimal to them.

The next chapter unveils a formal model, called Ståhl-Rubinstein, that accounts for the interrelation between structure of negotiation and process of bargaining.

## **CHAPTER 3**

### **The Ståhl-Rubinstein Bargaining Model and Propositions**

#### **I- The Ståhl-Rubinstein Model<sup>35</sup>**

The procedural elements of analysis (costs, sequentiality, asymmetry) are important aspects of a Ståhl-Rubinstein bargaining approach. Furthermore, this approach constitutes an interesting attempt at portraying the time dimension associated with bargaining. It is thus my intention to use a Ståhl-Rubinstein sequential game to represent the bargaining aspects of international trade and investment negotiations.

Before getting into the specific description of the Ståhl-Rubinstein approach, let's start with its main assumptions<sup>36</sup>:

- A<sub>1</sub>:** Bargaining involves two players, Sven (S) and Ollie (O).
- A<sub>2</sub>:** Bargaining concerns one issue<sup>37</sup>. All considered contracts are Pareto-optimal provided agreement is reached immediately, i.e., only agreements along a contract curve are considered.

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<sup>35</sup> See Figure 5 for the basic structure of the model.

<sup>36</sup> These assumptions are adapted from Ståhl (1994: 3-4).

<sup>37</sup> This is a controversial assumption when used to describe an international trade negotiation. I shall discuss this issue below when I describe how I intend to measure the outcome of an international trade agreement.

- A<sub>3</sub>:** Each party uses a maximizing behavior in the sense that each party strives to maximize its ordinal utility<sup>38</sup>.
- A<sub>4</sub>:** Each party has correct expectations about the other party's behavior, that is, each party knows that the other party behaves according to A<sub>3</sub>. E.g., Sven knows that Ollie maximizes.
- A<sub>5</sub>:** Each party has correct expectations about the other party's expectations. E.g., Sven knows that Ollie knows that Sven maximizes and Ollie knows that Sven knows that Ollie knows that Sven maximizes, etc., ad infinitum (common knowledge).
- A<sub>6</sub>:** The bargaining process is sequential; the parties alternate bidding so that each party knows exactly what the other party has bid earlier. Thus the game becomes one of perfect information<sup>39</sup>.
- A<sub>7</sub>:** Each party knows the payoffs obtainable from each agreement, not only by itself, but also by the other party, thus providing for a game of complete information.
- A<sub>8a</sub>:** Bargaining takes place over a number of periods, all of finite length. If we assume that Ollie is able to accept an offer ( $P_j$ ) by Sven in period  $j$ , we assume that Ollie makes a comparison between the payoffs of  $P_j$  in period  $j$  and in period  $j+1$ . Then, in regards to a specific order of bidding, for Ollie the comparison regarding his payoff will be between payoffs in periods 1-2, 3-4, then 5-6, while the comparisons for Sven will concern the periods 2-3, 3-4, then 5-6.
- A<sub>8b</sub>:** Bargaining takes place over a number of periods, but not necessarily of the same length. If we assign all payoffs to the very end of the periods (as in A<sub>8a</sub>), then for a given order of bidding, the periods for which the length has consequences for Ollie are the even numbered periods 2, 4, 6, while the periods of importance for Sven are the odd numbered ones. Thus, as long as we look for the determination of the solution for a specific order of bidding, we can assume different lengths for odd and even numbered periods (that is a different discount rate)<sup>40</sup>.

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<sup>38</sup> In my discussion of the measurement of the outcome, I'll indicate that cardinal utility can be assumed to be a monotone transformation of money.

<sup>39</sup> This assumption is relaxed below by the assumption that one (or two) party does not know about the "strength" of the other party, that is, it doesn't know about the true preferences of the other party.

<sup>40</sup> Therefore, it is an advantage to have a low periodic discount and hence a short period between one's own acceptance time and the corresponding time for the other party. Likewise, it is an advantage if one can prolong the time between when the

**A<sub>9</sub>:** The payoffs for both Sven and Ollie of an agreement on a certain alternative decrease over time. With a party's payoff of an agreement on alternative  $x$  in period  $j$  as  $v(x_j)$ , we assume that  $v(x_j) > v(x_{j+1})$  for every  $x$  and for every  $j$ .

After the presentation of its main assumptions, we can now turn to a verbal interpretation of the Ståhl-Rubinstein approach, and a discussion of its main parameters. The Ståhl-Rubinstein model consists of a series of offers made alternatively by the players in a negotiation<sup>41</sup>. The players can take action only at times in the (infinite) set  $T = \{0, 1, 2, \dots\}$ . In each period  $t \in T$  one of the players, say  $i$ , proposes an agreement (a member of  $X$ ) and the other player ( $j$ ) either accepts the offer or rejects it. More specifically, an offer can be accepted, which ends the game, a counter-offer can be made (at time  $t+1$ ), or the players can use an outside option (b) if a stalemate in the negotiation occurs<sup>42</sup>. In general cases the outside option is the *status quo ante*, but as indicated previously, when the bargaining is accompanied with an implicit threat of retaliation, the outside option may be perceived by the negotiators as an outcome worse than the possibility of signing a suboptimal outcome.

Under perfect information, the logic of the Ståhl-Rubinstein equilibrium is that the player who makes the first offer uses backward induction to submit an offer that

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opponent can accept a bid and when oneself next can accept (Carlsson, 1986; Osborne and Rubinstein, 1990: 54). In other words, it pays for one player to perceive that the "pie" of coveted goods shrinks at a slower rate for himself than the perception of the other player. For instance, Hart (1994) noted the tendency for the American negotiators to delay their answers to a Canadian offer, while the latter showed great impatience, during the CUSFTA negotiations.

<sup>41</sup> For a more detailed analysis of the Ståhl-Rubinstein approach, consult the original texts: Rubinstein (1982), Ståhl (1972).

<sup>42</sup> The outside option is not represented in the basic structure of Figure 5.

would be accepted by the other player if the negotiations were to drag on. The discount factors represent the time pressures facing the respective players<sup>43</sup>. Therefore, because of the need to reach a quick agreement, it pays to see the payoffs received by the player who makes the offer equal to the payoffs that he would receive if the negotiation were to last until a satisfactory agreement was reached by both players. In other words, because the pie is shrinking as time goes on (an agreement in the future is worth less than an agreement in the present), the player makes an offer in the present that contains more concessions to the other player from a "bigger pie", which is commensurate to a

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<sup>43</sup> Ståhl (1994: 11) indicates that the essence of the Ståhl-Rubinstein approach does not have to include a discount parameter in order convey the time pressure on the bargainers. Let's take a simple case to illustrate the point. Let's assume that farmer Sven produces cabbages at a cost of 50 cents a pound, and produces carrots at a cost of 75 cents a pound. On the other hand, farmer Ollie produces cabbages at a cost of 75 cents a pound and carrots at a cost of 50 cents a pound. Therefore, it would be advantageous for both farmers if farmer Ollie was ready to buy his cabbages from farmer Sven at any price between 51 cents and 74 cents a pound. On the other hand, it would also be advantageous for both farmers if farmer Sven was ready to buy his carrots from farmer Ollie at any price between 51 cents and 74 cents a pound. According to the comparative advantage concept developed by classical liberal economists, both players would be made better off by agreeing on an acceptable term of trade. However, every year, when Fall harvest comes, they may argue on an acceptable term of trade (e.g. Farmer Ollie might be willing to sell his carrots at a price of no less than 70 cents a pound and would not pay more than 55 cents a pound for farmer Sven's cabbages, while farmer Sven would not sell his cabbages for any less than 60 cents a pound and would not pay more than 65 cents a pound for former Ollie's carrots). The problem is that for every year that they cannot reach an agreement, both farmers are losing on a potential gain from an agreeable term of trade. This shows that even without a discount parameter there is a certain time pressure on the farmers to reach an agreement as quickly as possible.

The discount parameter or cost for delay comes into play in the following situation. Let's assume that Olga, Ollie's wife, understands the terms of trade involved and scolds farmer Ollie every Fall for not reaching an agreement with farmer Sven. On the other hand, Svetlana, farmer Sven's wife, has a profound distrust for farmer Ollie, and insists that her husband reaps the maximum benefits from the terms of trade. Consequently, farmer Ollie will have a high discount rate (or will face high costs for delaying), while farmer Sven is ready to hold out as long as possible to reach a better agreement. Hence, farmer Sven has a bargaining advantage over farmer Ollie.

future offer with less concessions, but from a "smaller pie".

Under perfect information an agreement would occur without delays. However, incomplete information situations can explain costly delays. There have been several attempts to extend the Ståhl-Rubinstein sequential bargaining model to cover cases of limited information (Sobel and Takahashi, 1983; Fudenberg and Tirole, 1983; Cramton, 1984; and Rubinstein, 1985).<sup>44</sup> Limitations in information tend to have the most profound impact on a model's outcome when they are asymmetric. Hence, I suspect that the highest degree of value added would come from examining an aspect of the bargaining process where one side possessed private information. It can be argued that the differences in domestic political institutions generate this type of asymmetry. Specifically, the difference between executive and legislative relations, and the possible impacts of these on the process of treaty ratification, are likely to be consequential. The model proposed here can be used to examine the effects of these differences on the ratification process. It can also serve as a referent to explore how these institutional differences can be expected to influence inter-state bargaining and the nature of the agreement that is eventually reached.

A Ståhl-Rubinstein representation can also consider the possibility that the players have different costs involved with the possibility of a breakdown in the negotiations (Osborne and Rubinstein, 1990: 71-73). I shall further discuss the relationship between breakdown costs and structural elements of analysis.

There are two other parameters of the Ståhl-Rubinstein approach that I do not

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<sup>44</sup> See Sutton (1986) for an interesting review that attempts to integrate these "non-cooperative" or "sequential" bargaining models with the earlier axiomatic approach to bargaining theory (Nash 1950, 1953; Harsanyi 1967).



include in the empirical part of this research: the order of offer (that is who goes first) and finite v. infinite games. Ståhl (1994) discusses the effect of who goes first when he compares his model to Rubinstein's approach. It turns out that "who goes first" has an influence on the outcome in the Rubinstein's model (1982), but it does not in Ståhl's (1972) model. He then proposes a synthesis of both models that can alleviate the problem. As for the infinite v. finite case, it turns out that there may be some quantitative effect on the outcome, but no qualitative effect. That is, the magnitude of the difference in what the players get may differ slightly, dependent on the modeling approach, but it will not affect which player gets more than the other depending on the magnitude of the other parameters.

The Ståhl-Rubinstein approach seems to be an appropriate representation of the bargaining aspects of negotiation introduced at the beginning of this paper. The discount factor (or cost for delay) is a good explanation of the convergence rate of the negotiators towards an agreement. It can also be modeled in such a way to take into consideration the effects of limited information, as well as statesmen's different costs associated with delays and breakdowns. But more importantly, it focuses on the element of time through its sequential nature. The relation between the procedural nature of the Ståhl-Rubinstein bargaining approach and the structural aspects of negotiation revealed by the two-level of analysis is explored below. For now, I turn to a more specific discussion of the dimensions of the model.

## **II- Propositions, Model, and Operationalization**

The previous sections have provided the foundations for the model that I introduce below. In these sections, I have tried to capture some of the limitations of current research regarding international interactions in general and international bargaining more specifically. The remainder of this dissertation explains and justifies each element of the model. I shall proceed by stating each particular proposition, then I shall provide a little discussion on the effect of each parameter, and finally, I shall present how each parameter will be "tested."

Part A) discusses the structural dimensions of international trade negotiations, starting with the international aspects and following with domestic parameters. Part B) turns to the process of international trade bargaining. Part C) explores the relationship between the structure of international negotiation and the process of trade bargaining. Finally, part D) presents a discussion of the nature of the outcome of international trade negotiation (dependent variable).

### **A) Contextual Dimension**

The contextual dimension relates to the nature of the structure of international trade negotiations previously discussed. I look first at the international structural aspects of negotiation, before turning my intention to its domestic components. This section is an extension of the theoretical discussion of the two-level of analysis metaphor proposed by Putnam (1988).

i) *International* (See Figure 6)

The two international structural elements of negotiation that I include in my model are the trade dependence and the bilateral structure of trade between two nation-states. Let's first address the nature of interdependence.

● Interdependence<sup>45</sup>

**P1:** In a bilateral trade and investment negotiation, a nation-state that is less dependent on the other state for its commercial exchanges has more bargaining power than the second nation-state.

Many political scientists focus their attention on the contextual dimension of international negotiations<sup>46</sup>. A wide array of studies mention that asymmetrical dependence is an important factor that must be considered when assessing the outcome of international negotiations. This comes as no surprise given that since the end of World War II international relations have been marked by significant liberalization and expansion of world trade. With an increasing dependence on international commerce, national economies have become more sensitive to each other. The aftermath of increasing commercial interdependence are fascinating in themselves, but more engaging is the question of which countries are more dependent on the international economic system, and how does that affect their relative bargaining power in international

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<sup>45</sup> A list of all propositions is presented in Appendix A.

<sup>46</sup> Gary Goertz (1994) provides, arguably, the most comprehensive discussion of contextual theories of international relations.

negotiations.

These questions are at the basis of this study. It starts with the hypothesis that the less dependent a state is towards another state (and the entire international economic system) regarding its economic exchanges, the more leverage it has when entering an international negotiation concerning trade and investment with the latter. It is therefore hypothesized that the larger a state's share of trade and investment resulting from international exchanges with another state, the more vulnerable it becomes to the consequences of a breakdown of the commercial relationship between the two countries. If the second state is not as reliant on the first for its external exchanges, the more likely it is to find alternatives to trading with the first state. Therefore, each party's bargaining strategy is affected by its perceived vulnerability to retaliation.

This asymmetry of economic dependence lays the foundation for the actors' strategies in any specific bargaining situation. Indeed, the less dependent state is more likely to impose heavy costs for the burden of delay on the other player, coupled with its own insensitivity to costs imposed on oneself. The credibility of a threat made by one of the player to walk out of the bargaining table and impose sanctions partially depends on the relative nature of trade dependence of the two states<sup>47</sup>.

- Operationalization:

A first measure of interdependence can be set in terms of geographic concentration of exports and investment:

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<sup>47</sup> It is only partially the effect of trade dependence because it depends also on the domestic distribution of benefits and costs that stems from agreement or nonagreement. This element of analysis is explored by proposition P5 (Societal Support).

- i) B's share of A's international trade and foreign direct investment output (%).  
(A's dependence)
- ii) A's share of B's international trade and foreign direct investment output (%).  
(B's dependence)
- iii) The ratio of i) over ii).

It can then be said that the trading partners are symmetrically dependent if the value of iii) is roughly equal to 1. Nation A is said to be more dependent upon nation B (instead of the reverse) if the value is greater than 1. Conversely, nation B is said to be more dependent upon nation B (instead of the reverse) if the value is situated between 0 and 1.

However, this does not present the entire interdependence picture. A nation-state may be highly dependent on another state for its external exchanges, but international trade may only be a small subset of its entire economic strength. Therefore, it is also important to incorporate a nation's GNP in our test of trade interdependence. Empirically, I suggest a look at the following:

- i) A's share of GNP that is accounted for by its exports and foreign direct investments in country B (%). (A's dependence)
- ii) B's share of GNP that is accounted for by its exports and foreign direct investments in country A (%). (B's dependence)
- iii) The ratio of i) over ii).

Again, it can be said that the trading partners are symmetrically dependent if the

value of iii) is roughly equal to 1. Nation A is said to be more dependent upon nation B (instead of the reverse) if the value is greater than 1. Conversely, nation B is said to be more dependent upon nation A (instead of the reverse) if the value is situated between 0 and 1.

- **Complementarity of Trade**

**P2A:** When the nature of the trade relationship between two countries is complementary, an international trade and investment agreement is more likely to occur.

Another international dimension that is considered in this work is the bilateral trade structure between the negotiating parties. It has more to do with the possibility that an agreement will be reached, but when coupled with the "political necessity" and "societal support" dimensions, it can also affect the bargaining leverage of the negotiating parties. It is assumed that when there is a high complementarity of trade between two nations the negotiators are more likely to reach an agreement and meet their objectives. Complementarity is defined in terms of what the trading partners produce. High complementarity is assumed when the second country produces goods the domestic population of the first country needs, and vice versa. For instance, country A might be rich in primary products, while country B produces more manufactured products. When the parties are negotiating over goods that both countries produce, the negotiators are more tenacious and an agreement is less likely (thus the difficulty of attaining respective objectives). The situation is thus more difficult for the negotiators who make a demand

for a concession while they have a great political need for an agreement (See the political necessity dimension below)<sup>48</sup>, as well as when they ask for their counterparts to restrain the flow of goods that are competing with domestic production. Furthermore, when a high complementarity of trade exists, negotiators of nation A can find consumer groups inside nation B that are likely to support their position, thus weakening nation B's negotiators bargaining position (International linkages). Even when two countries produce similar goods, public support in the other country can be found if the goods produced in the first country are cheaper to manufacture. However, this support can easily be upset by domestic groups, such as unions, that would prefer to protect their home industry at the expense of higher prices for the goods. This, again, reveals the importance of looking at international trade negotiations in terms of a two-level of analysis metaphor.

#### - Operationalization

The export concentration dimension can be unveiled by exploring the geographic concentration in sources of supply (Holsti, 1978: 516). A first-cut at the problem is to look at the geographic concentration of supply in terms of the three main sectors of the economy:

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<sup>48</sup> For instance, a higher complementarity of trade between Canada and the United States can partially explain why the latter has been more successful in its negotiations with the former than it has been with Japan and the European Community. It is true that Canada and the United States produce many similar goods, but a large part of the negotiations between the two countries revolves around the United States' willingness to invest in the development of Canadian resources in exchange for a greater access for Canadian-based companies to the U.S. market in order to assure them a greater economy of scale for their sales.

- i) B's share of A's source of supply in the primary sector, and vice versa (%)
- ii) B's share of A's source of supply in the secondary sector, and vice versa (%)
- iii) B's share of A's source of supply in the tertiary sector, and vice versa (%)

This measure gives us a good indication of the complementarity of trade between the two countries. Especially, it indicates the possibility of a more encompassing trade agreement between two countries. For instance, it can be assumed that an agreement is more likely when nation A is an important source of supply of primary goods for nation B, while nation B is an important source of secondary products for nation A.

In more restrictive cases, such as a specific trade dispute, it would be worthwhile looking at the specific concentration of trade of the disputed products. It is especially the case when attesting the credibility of a threat as indicated below.

- **Trade Complementarity and Threat Credibility**

**P2B:** A threat of trade retaliation is more credible when the targeted product is also produced in the targeting country and/or can be imported from a third country.

Complementarity of trade can also be used as an indication of the credibility of retaliation threats. It can be hypothesized that a threat is more credible when it is targeted at a product that is also produced by the threatening country or that can be found in any third country<sup>49</sup>. In such case, the threatening country does not have a great need

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<sup>49</sup> This is especially relevant for primary goods.



for the targeted product. Therefore, it is important to look at the concentration of production of the targeted product. Sometimes, alternative goods can be used (or bought from another country) to replace the targeted product. This also needs to be considered. Of course, this measure is not always appropriate. It can better be used for instances when the United States threatens to use Section 301, than it would for a free trade agreement negotiation. For appropriate cases, I intend to look at the following measures:

- Operationalization

- i) Concentration of production of the product in contention by the targeted country (% of world production)
- ii) Possibility of alternative sources of supply for the importing country

To make the verification of this hypothesis more general, we must also take into account cases for which a threatening country explores the possibility of limiting the export of a specific product to a targeted country. This could apply to the case where a country or a group of countries (cartel) control a large proportion of the production of a specific product, such that, by limiting its supply, it (they) can control world prices. The obvious example that comes to mind is the price control of petroleum products exercised by the Organization of Petroleum Exporting Countries in 1973. In this instance, the operationalization is the following:

- i) Concentration of production of the product in contention by the exporting country (% of world production)
- ii) Possibility of alternatives sources of supply for the importing country

## ii) *Domestic*

The domestic dimension is divided into three elements of analysis: institutional constraint, political necessity, and societal support. The first element is a more permanent fixture of domestic politics that can be applied to any cases of international trade negotiations of a specific nation-state (or group of nation-states). The last two are issue-specific oriented. The reasons for dividing the domestic dimension into three categories are twofold. First, these elements have different (and often opposite) effects on the structure of negotiation. Second, they affect the process of bargaining in a different manner. The relationship between domestic contextual dimensions of negotiation and the procedural dimensions of bargaining are explored later. For now, I turn to the description of the domestic elements of analysis, starting with institutional constraints.

### ● Institutional Constraints

**P3:** The higher the institutional domestic constraint faced by negotiators, the higher their bargaining leverage in an bilateral international trade and investment negotiation.

This dimension pertains to the possibility of "involuntary defection." Involuntary defection reflects the behavior of an agent who is unable to deliver on a promise because of failed domestic ratification. In some sense, this dimension is related to the "veto" power that some domestic institutions may have. It can be seen as a source of bargaining power since the negotiators, when facing strong domestic institutional opposition, can

always argue that agreement suggested by the other side's negotiators is reasonable but has little prospect of being ratified at home. The focus here is on institutional relevancy and restriction on bargaining authorities. The more complex and uncertain the domestic ratification process is, the more the negotiators can use this "trump card," and more leverage they have in the international negotiation.

It is often assumed that such institutional constraint is, *de facto*, higher in democracies than in non-democracies. This dichotomy democracy/autocracy can however be misleading. It shows mitigated results in terms of willingness of the regime to go to war, and it has not yet been tested adequately in regards to matters related to trade. Therefore, I intend to shy away from such categorization and focus instead on institutional political opposition.

It appears obvious that institutional political opposition comes necessarily from other political parties (which in some sense takes us back to the democracy/autocracy debate). It is indeed important to look at the role that may be played by other parties in terms of the ratification of a trade accord<sup>50</sup>, but intra party dissension must not be overlooked. There is presumably an important difference when the ruling party or group is a cohesive organization, rather than when the ruling party or group is organized around structural factions.

Official political opposition may not always present a clear picture of institutional opposition. Regime fragmentation should be explored. First, one needs to look at

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<sup>50</sup> There is an important difference in terms of political opposition if the regime has no opposition parties or if the opposition parties control the legislature as in the case of a minority government in a parliamentary democracy or in when the legislature is controlled by one party while the executive is controlled by another in a presidential system. Minor and major party opposition should also be distinguished.

regime fragmentation in terms of the degree of cohesiveness of the ruling party (group configuration). The regime can be dominated by a cohesive single party, by a single party with internal factions, or by a coalition of autonomous parties or groups. Second, the presence or not of a predominant actor may have an impact on the level of institutional opposition. Third, and more importantly, policy polarization over trade matters must be considered. In fact, it may be true that the level of institutional domestic opposition is high, but the actors may or may not be divided over foreign trade matters.

- Operationalization<sup>51</sup>:

To recap, here are the factors that I suggest should be evaluated:

- Fragmentation:
- i) Group Configuration
    - Regime is a single party or cohesive group
    - Regime is a single party or group with internal faction
    - Regime is a coalition of autonomous parties or groups
  - ii) Actor Predominance
    - Politically predominant actor is present
    - Politically predominant actor is absent
  - iii) Policy Polarization
    - Actors are not divided over foreign trade matters
    - Actors have broad differences on foreign trade issues

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<sup>51</sup> When one of the negotiating factions is an international institution, such as the EU, the following operationalization, with slight changes, can still be used.

**Political Opposition: i) Intra Party Dissension**

- Ruling party or group is a cohesive organization
- Ruling party or group is organized around structural factions

**ii) Other Political Parties**

- No opposition parties
- Minor party opposition: 1-32 percent of the seats
- Strong party opposition: has 33-49 percent of seats
- Opposition parties control the legislature

● **Political Necessity**

**P4:** In a bilateral international trade and investment negotiation, the greater the necessity for an agreement for one party, the less its bargaining leverage.

This category of the domestic dimension refers to the political needs of the government. Two main instances of political necessity are identified in this research: electoral and economic. First, the international negotiation may be an important part of the electoral platform of the incumbent government. In such a case the electoral objective may come to surpass the trade objective. Therefore, the negotiators may be pressed by the ruling party to come to a quick end to the negotiation in order to boost the electoral chances of the party and this may come at the expense of the fulfillment of trade objectives. This seemed to be the case of the Mulroney regime when negotiating

the CUSFTA with the United States. Furthermore, not only did the need for an agreement come during an electoral period, but also the CUSFTA negotiations were a very salient part of the Conservatives electoral platform.

Second, the political needs of the government can also be interpreted as the necessity for an agreement in order to salvage what is perceived by the chief of government as a bad economic situation. In other words, an agreement can be seen as a way to ratchet up the domestic economic situation. The focus here therefore is the domestic leaders' perceived effect of the international trade agreement on domestic economic revitalization. This perceived need for an agreement is a source of weakness in an international negotiation because the negotiators see an agreement as a panacea for a difficult domestic economic situation. Consequently, they consider that while a delay exists in the signing of an agreement the domestic economic situation worsens. The negotiators must then weigh the effects of a delay in the reaching of an agreement with the results of a quick agreement that do not meet an optimal amount of their demands. Of course, negotiators that do not view an international commercial agreement as a panacea for a difficult economic situation have the luxury of delaying the negotiations until they get closer to an agreement that contains the majority of their demands. Hence, their bargaining leverage is increased.

#### - Operationalization

This category of the domestic dimension is rather difficult to measure, especially in terms of economic needs. Because what is mostly important is the perceived need of the chief of governments and his close associates, objective measures of economic

performance may not represent the most adequate representation of political necessity. Nevertheless, it can be considered as a point of departure that must be associated with a close reading of the official declaration of government members. Given this caveat, here is how I suggest to "measure" this category of the domestic dimension:

Electoral Necessity: i) Existence of an forthcoming election  
 ii) Saliency of the international trade agreement for electoral purpose

Economic necessity: i) Growth rate  
 ii) Unemployment Rate (Yearly change)  
 iii) Inflation rate  
 iv) Saliency of the international trade agreement in regards to economic growth

● Societal Support

**P5:** In a bilateral international trade and investment negotiation, the greater the societal support for negotiators, the greater their bargaining leverage.

This dimension is the most difficult to estimate. It refers to a government's relationship with its civil society. This category of the domestic dimension is more specifically related to the case of negotiation at hand than the previous category. While

the previous category focused on the "needs" of the negotiators, this category concentrates on the distributive effects of the potential agreements on the different societal groups. The distinction is more than trivial. Moravcsik (1993: 26) points out that "the more diffuse the costs and benefits of the proposed agreement, the more possibilities for the statesmen to target swing groups and gain support at relatively low cost." This statement indicates the saliency of the scope of the issue negotiated. In the case of a negotiation involving many issues, such as CUSFTA or NAFTA, the statesmen are more at ease to target groups that would support their aims and are hence more likely to succeed in swinging target groups towards their own views about the potential agreements. Conversely, in more obtuse instances, such as the use of Section (Super) 301 by the United States, domestic support and opposition are more concentrated and groups that would bear the highest costs from the potential agreement are likely to battle fiercely against the proposed agreement. Therefore, the political necessity dimension bears more influence on the outcome of a negotiation than the societal support dimension when the negotiation encompasses a large number of issues, and vice versa. This is the main justification explaining why I chose to separate these two categories of the domestic dimension of international trade negotiation.

The success of the negotiators can be contingent on their resourcefulness, "that is, on recognizing options usable in the conflict episode at hand and gaining acceptance for the use of these options within the decision unit" (Lockart, 1979:133). Resourcefulness affects the ability of negotiators to withhold an agreement or put an end to the negotiations, or at least threaten to do so. A high level of resourcefulness increases the bargaining power of the negotiators as they can count on the "willingness"



of the domestic society to suffer from the consequences of a failed negotiation. It is easier for negotiators to take a tough stance during a negotiation when they know that the population, the elite, and the bureaucracy they represent, share their view and would rally to their support in the event that they should have to walk out of the negotiating table. When domestic actors are highly committed to a set of strategies used by their negotiators, they highly value the outcome pursued by the negotiators, and the latter can use a more tenacious and dedicated strategy in order to reach a more optimal outcome. On the contrary, "[o]n the basis of Olsonian collective-action analysis, it seems reasonable to expect that concentrated groups that are disadvantaged by an agreement [...] will become intransigent and influential opponents of agreement" (Moravcsik, 1993: 26).

Negotiators can also enjoy an increased bargaining support when a coalition inside the other side's domestic society supports their objectives (reverberation). For instance, if their desire is to open another country's market to cheaper commodities produced in their country, they may find support from consumers groups and businesses operating in the imports industry of this specific target country. Opposite to Evans' (1993) view, I don't find it necessary to unfold an explicit attempt by statesmen to sway the opinion of a targeted group in another country, in order to assess the importance of reverberation. From my standpoint, the fact that such a strategic alliance exists is enough to influence the nature of the negotiation process.

- Operationalization

In order to appraise the effect of this dimension I propose to look at the relationship between the government and the business community, and between the government and trade unions. When available, I plan also to look at surveys in order to appraise the support of public opinion. The transnational linkages between statesmen and foreign groups are also assessed.

|                                 |                                                                                                                                                                                                       |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Government/Domestic Interaction | <ul style="list-style-type: none"> <li>i) Support of Business Community</li> <li>ii) Support of Trade Unions</li> <li>iii) Support of Consumers Groups</li> <li>iv) Role of Public Opinion</li> </ul> |
| Type of Issues Negotiated       | <ul style="list-style-type: none"> <li>i) Scope of the Negotiation</li> <li>ii) Domestic Distributive Effects</li> </ul>                                                                              |
| Reverberation and Targeting     | <ul style="list-style-type: none"> <li>i) Existence of "Natural" Alliances with Foreign Groups</li> <li>ii) Explicit Attempts to Influence Foreign Groups by Statesmen (and vice versa)</li> </ul>    |

B) Process Dimension (See Figure 3 in chapter 1)

I have so far covered and proposed some justifications for my choice of the contextual dimensions of international trade negotiations. The following section

concentrates on the justification of the procedural elements of bargaining. The three main components that I discuss are international breakdown costs, domestic cost of delay (or discount parameter), and information.

- **Breakdown Costs**

**P6:** In a bilateral international trade and investment negotiation, the smaller international breakdown costs for negotiators, the larger their bargaining leverage.

Economists interested in negotiations focus their attention on the process of bargaining. They have more particularly studied the effect of the negotiators' costs associated with a stalemate in the negotiations. In this study I consider these costs in terms of the possibility that the negotiations will reach a stalemate in the near future, that is, the next round of negotiation. Negotiators that fear an impasse in the negotiations, are more likely to accept a suboptimal agreement, especially if they consider that a "non-agreement" is worse than a suboptimal agreement (that is an agreement that is not entirely satisfactory to them). It is generally true that a settlement of a dispute or a successful trade negotiation is better for both sides to an impasse in the negotiations, otherwise there would be no need for a negotiation.

However, two points should be made clear. First, the consequence of a standoff does not have to be the same for each group of negotiators. Negotiators may have different alternatives, or a different "security point." An actor may be able to achieve his preferred outcomes in any particular issue area if he can develop alternative

relationships in which that outcome is more easily available. Therefore an actor may be able to achieve much of his objectives by not negotiating, or by stalling the negotiations. This action is related to the point at which the negotiator would prefer stalemate over negotiation (security point). Therefore, the side that has more alternatives as its security point is reached, has an advantage over the opposite side. In other words, the availability of alternatives may thus increase an actor's bargaining power by decreasing its reliance on the other actor, and, in turn, by decreasing its costs associated with a dead end in the negotiations. Second, an actor may enter into a negotiation in order to avoid a tacit threat of an aggravation in the relations between two countries. The possibility of a trade war if no agreement is reached can be seen as a tacit threat. In such case, the negotiators may come to believe that the alternative is not between an agreement and the status quo, but rather between an agreement and an outside option that appears worse than the status quo. In some cases, tacit bargaining takes place whenever a state attempts to influence the policy choices (or bargaining options) of another state through actions exogenous to the negotiations, rather than by relying on the formal negotiating process (Downs and Rock, 1990:3). For instance, the tough American unilateral economic stance with other international partners, prior to and during its negotiation with Canada, constituted an implicit threat directed towards the Canadian negotiators. The threat was real given that it would impose some costs on both parties, even though Canadians would have had to bear most of the costs of a deterioration in the trade relationship between the two countries.

- Operationalization

An important development in the Ståhl-Rubinstein sequential bargaining game is the inclusion of the possibility of a breakdown in the negotiations or an outside option (Crawford, 1987; Fudenberg, Levine, and Tirole, 1987). This modification implies that at the end of each offer there is a chance move that ends the game with a probability of  $q \in (0,1)$ <sup>52</sup>. Assuming that the players do not care about when an agreement is reached, the pressure on the players to reach an agreement is not their impatience but the risk that the negotiations will break down. I will leave for future work the discussion of the effect on the outcome of the inclusion of a risk of breakdown in the model<sup>53</sup>. What is of interest at this point is the different assessment of the players regarding the probability of an impasse. If we assume that in a game of complete information the most efficient outcome and unique equilibrium is  $(x^*, y^*)$  (where  $x^*$  and  $y^*$  are the respective shares for  $P_1$  and  $P_2$ ), Osborne and Rubinstein (1994: 129-30) demonstrate that, when including the probability of an impasse, the utility derived from this efficient agreement becomes  $(1-q) \mu_1(x^*)$  and  $(1-q) \mu_2(y^*)$  respectively. Hence, this shows that higher costs associated with a stalemate (that is higher values of  $q$ ) accounts for smaller share of the "pie".

Given this parameter, it is in the advantage of a negotiator to act as if he was just about to walk away from the table of negotiation. This strategy, when credible and

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<sup>52</sup> There could be different reasons why at the end of a period the negotiation could terminate. The main reason would be that the player whose turn it is to make an offer may consider walking away from the negotiation table.

<sup>53</sup> A good demonstration can be found in Osborne and Rubinstein (1990: 54-63, 71-76).

successful, put the onus on the other side, and is likely to lead to more concessions<sup>54</sup>. The utilization by Washington of Section (Super) 301 is a clear demonstration of this phenomenon. When US trade representative perceive that some actions, constituting an impediment to US trade and investments abroad, have been taken by international actors, they may decide that a case is "worthy" of being pursued. However, before using, without consulting the target, some reciprocity or retaliation, negotiations begin. It is in interest of both the US and a target to resolve the issue. Nevertheless, both sides (especially the United States) must act "tough", threatening to walk away from the negotiation table at any moment. This bargaining tactic is at the core of any type of negotiation encounter: from union representatives bargaining for better<sup>5</sup> wages with employers to a six year old kid bargaining with is dad to have the permission to see "The Lion King" for the hundredth time; from a prospective buyer trying to get some extra options from a car salesman to a group of terrorist negotiating with a government the conditions of their surrender. I will indicate below, in the specific case of international trade and investment negotiations, what affects the credibility of such threats.

- Domestic Costs of Delay (or discounting)

**P7:** In a bilateral international trade and investment negotiation, the higher the domestic cost of delay for negotiators (or lower their discount rate), the less bargaining leverage they have.

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<sup>54</sup> This means, once again, that it is in the negotiators interest to reach an agreement rather than reaching a stalemate. If the converse was true, not bargaining encounter would occur.

Negotiator who perceive that they suffer high domestic costs for delaying the international negotiations are in a position of weakness. The higher those domestic costs (at each round) the more impatient they become and they are more likely to accept a suboptimal agreement. Alternatively, the negotiators' patience can be modeled in terms of a discount rate. The discount rate represents how future rewards derived from an agreement are valued relative to the valuation of the present reward. The higher the discount rate, more important is the future. In other words, the higher the discount rate for an actor, more patient he is during the negotiation.

Figure 10 illustrates the situation. Consequently, negotiators that have a higher discount rate than opposing negotiators, due to their patience, have more bargaining leverage than the latter. If both set of negotiators has the same discount rate, the Ståhl-Rubinstein solution is identical to the Nash solution, that is, it is the outcome that maximizes the product of the differences between the utility each set of bargainers assigns to the agreement reached and the utility they assign to nonagreement<sup>55</sup>. An advantage of the Ståhl-Rubinstein approach over the Nash solution is that the latter can not take into account a situation when bargainers have different discount rates.

#### - Operationalization

The domestic costs of delay are at the heart of the Ståhl-Rubinstein model presented below: "The key to bargaining power here, in Rubinstein's model, and in other variations given comes from the ability to put the onus of waiting entirely on the other

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<sup>55</sup> A discussion and comparison of the Ståhl-Rubinstein's and Nash's solutions can be found in Binmore, Rubinstein, and Wolinski (1985).

party" (Kreps, 1990:565). By comparing Figure 10, where both players have the same discount rate, to Figure 11, where Player 1 has a smaller discount rate than player 2, it can be seen that in the second case Player 1 receives a smaller share of the "pie" than in the first case. I shall give a "real world" example of asymmetric costs of delaying in the section entitled "Political Necessity and Domestic Costs for Delaying." At this point, I present an hypothetical situation to underscore how a Ståhl-Rubinstein sequential bargaining game can be applied to international trade negotiations.

A Ståhl-Rubinstein game can be applied to international trade negotiations between two nation-states in the following way: One of the nation-states, which we can label "Player 1" is considered "weak", while the second, labeled "Player 2" is considered "strong". The strength of the players is established according to their discount rates<sup>56</sup>. A player with a small discount rate has large domestic costs associated with delays in the negotiations. This means that this player highly discounts future agreements, and prefers to settle rapidly. A player with a large discount rate, values a future agreement as almost the same way he values an immediate agreement. Hence, Player 1 is "weak" because he has a small discount rate (or large domestic costs associated with negotiations delays), while Player 2 is "strong" because she has a large discount rate (or low domestic costs associated with negotiations delays). Accordingly, Player 1 is at a relative disadvantage in any international bargaining situation. The size of the discount factor in international trade negotiations is derived from political or economic domestic factors, such as forthcoming elections or difficult economic times. The following demonstration

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<sup>56</sup> Let's imagine, for instance, that a player values an agreement at  $t=0$  as "1" and his discount rate is .5. A future agreement ( $t=1$ ), modeled as the next round, is worth  $\delta 1$  to him, that is, a value of .5.



assumes perfect and complete information: players know their position in the game, the rules of the game, their preferences and their opponent's preferences.

**\* Players**

Player 1 (who is considered weak) and Player 2 (who is considered strong)

**\* Information**

Perfect and complete.

**\* Actions and Events**

- Game begins by an offer by Player 2.
- Game ends in agreement when a country accepts the other country's offer.

**\* Discounting**

An agreement at time  $t$  is worth  $\delta_1$  and  $\delta_2$  as much to Player 1 and Player 2 respectively at time  $t+1$  (Note:  $\delta_1$  is small and  $\delta_2$  is large, i.e., the future is highly discounted for Player 1, it needs a "quick" agreement).

**\* Game sequence**

The heart of the Ståhl-Rubinstein game can be depicted in a three rounds sequence. The Bargaining game when Player 2 moves first and knows that Player 1 is weak is summarized in the following table.

TABLE 1

## Ståhl-Rubinstein Three Rounds Sequential Game

| Offer by | Time  | Player 2's Share           | Player 1's Share         |
|----------|-------|----------------------------|--------------------------|
| Player 2 | $t$   | $x$                        | $1-x$                    |
| Player 1 | $t-1$ | $\delta_2 x$               | $1-\delta_2 x$           |
| Player 2 | $t-2$ | $1-\delta_1(1-\delta_2 x)$ | $\delta_1(1-\delta_2 x)$ |

By backwards induction, we assume that the Player 2 offers  $(x, 1-x)$  at time  $t$  in some subgame and Player 1 accepts. Then Player 1 could have already made an offer  $(\delta_2 x, 1-\delta_2 x)$  that the Player 2 had accepted at  $t-1$ . Likewise, the Player 2 could have already offered and Player 1 accepted  $[(1-\delta_1(1-\delta_2 x), \delta_1(1-\delta_2 x)]$  at  $t-2$ . Setting the bargaining shares of the Player 2 equal at time  $t$  and  $t-2$ , we can solve for the Ståhl-Rubinstein equilibrium:

solving for  $x$  when  $x = 1-\delta_1(1-\delta_2 x)$ ,

we obtain  $r_2^{57} = (1-\delta_1)/(1-\delta_1\delta_2)$

Consequently, Player 2 offers, in a subgame perfect equilibrium  $(r_2, 1-r_2)$  which is

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<sup>57</sup> Under perfect information,  $(r_2, 1-r_2)$  represents the equilibrium offer. That is, the minimum offer (reservation price) acceptable to the Player 1 when we introduce costly delays. In Figure 10,  $X_0$  corresponds to the share of the "pie" for Player 2, when an equilibrium offer of  $(r_2, 1-r_2)$  is made by player 2. Because in Figure 10 the two discounts rates are equal at the equilibrium Player 2's becomes  $r_2 = 1-\delta+\delta^2$  (because  $\delta_1=\delta_2$ ). In Figure 11, the share are as indicated in Table 1.

accepted by Player 1. This offer corresponds to the respective shares (payoffs) for the Player 2 and Player 1. It can be seen, by comparing Figure 10 and 11 that Player 1 gets a larger share of the "pie" when his discount rate is the same size as Player 2.

- Information

**P8:** In a bilateral international trade and investment negotiation, the more information negotiators have about domestic costs of the other party (or its "strength"), the more bargaining leverage they have.

This aspect of the process of bargaining refers to the ability of a negotiator to perceive the true preferences of the other negotiator. In this study a negotiator can be perceived as being "weak" or "strong." A strong negotiator, that is one that will only accept an agreement that satisfies most of his demands, has more bargaining leverage. Conversely, a weak negotiator, that is a negotiator that is willing to accept a suboptimal outcome, is in a disadvantageous bargaining position. A negotiator that can hide his true nature has more ability to reach his objectives, even if he is "weak." The "strength" of a negotiator is determined by the contextual dimensions introduced above. Therefore, a negotiator who does not suffer from an important trade reliance vis-à-vis the other side, who has a wide institutional opposition, who is not in a dire need of an agreement for an electoral or economic purpose, and who can count on a large support from the domestic polity, is considered to be "strong". The nature of the information in the bargaining process is said to be complete when both sides know the true nature of the other side; asymmetric when only one side knows the true nature of the other side; and

incomplete when neither side knows the true nature of the other side. Thus, when a bargaining model assumes complete information on the part of two bargainers, it implies that they should agree to the predicted outcome immediately. However, complete information is not a realistic assumption and it can only be used as a first look at a bargaining situation. More realistically, a bargaining situation should be modeled in terms of incomplete information, but in some circumstances it can be modeled as an asymmetric situation when one player has much more information about the true nature of the other player than vice versa.

#### - Operationalization

Figure 12 shows the first two periods of a sequential bargaining game with one-sided incomplete information. In this game, Player 2 is informed about all aspects of the game, while the other is unsure of the preferences of his opponent. We have seen previously that when both players are completely informed about their opponents' preferences, it is realistic to infer that an agreement will be reached immediately. This is not the case when information is incomplete. Indeed, the main reason to study a bargaining game with incompletely informed players is to explain delays in reaching an agreement.

In a game of alternating offers with incomplete information each move is seen as a message used to communicate information to the other player. This aspect of negotiation is essential according to Osborne and Rubinstein (1990: 91): "Each player may try to deduce from his opponent's moves the private information that the opponent possesses; at the same time, he may try to make his opponent believe that he is in a

better bargaining position than he really is."

The basic model of alternating offer under incomplete information is closely related to that of complete information (see description of Ståhl-Rubinstein game above). Once again, the players propose agreements at time  $T = \{0, 1, \dots\}$  as indicated by Figure 12. If an agreement is accepted at time  $t$ , then the outcome is  $(x, t)$ . The players have time preferences with a constant cost of delay. Specifically, Player  $i$ 's preferences over  $X \times T$  are represented by the utility function  $x_i - c_i t$  where  $c_i$  is Player  $i$ 's bargaining cost.

To represent the effect of one-sided incomplete information, we assume that Player 1 is uncertain of Player 2's bargaining cost.  $c_2$ , the bargaining cost of Player 2 can take two values  $c_L$  and  $c_H$ , where  $0 < c_L < c_1 < c_H$ . With probability  $\pi_H$ , Player 2's bargaining cost is  $c_H$ , and with probability  $1 - \pi_H$  it is  $c_L$ , where  $0 < \pi_H < 1$ . Player 2 knows his own bargaining cost, as well as that of Player 1.

The assumption that  $c_L < c_1 < c_H$  means that Player 1 is in a weak bargaining position when matched with an opponent with a low bargaining cost ( $c_L$ ) and in a strong position when facing an adversary with a high bargaining cost ( $c_H$ )<sup>58</sup>. Thus when Player 2 has the benefits of asymmetrical knowledge regarding Player 1's preferences, that is, when "Player 1 is unsure of Player 2's type, Player 2 has every incentive to convince Player 1 that his bargaining cost is  $c_L$ " (Osborne and Rubinstein, 1990: 93).

Figure 12 represents this situation by introducing two players in the role of Player

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<sup>58</sup> Bear in mind the effect of fixed domestic costs in a game played under perfect information: When it is common knowledge that Player 2 has low bargaining costs, Player 1 obtains a small positive payoff only because she has the advantage of making the first offer. If it is common knowledge that Player 2 has high bargaining costs, then Player 1 obtains all the pie (Osborne and Rubinstein, 1990: 49).

<sup>59</sup>. One of them ( $2_L$ ), whom I call "strong", has bargaining costs of  $c_L$ . The other ( $2_H$ ), whom I call "weak", has a bargaining costs of  $c_H$ . At the beginning of the game the types of Player 2 are selected by nature with probability  $\pi_H$  for  $2_H$  and probability  $1 - \pi_H$  for  $2_L$ . The fact that Player 1 is not informed of the selection of Player 2's type is represented by an information set at  $t = 0$ . The dotted line connects the first two nodes at which Player 1 has to make a choice. The branches labeled  $X^0$  represent a typical offer of Player 1 in period 1 and the branches labeled  $X^1$  represent an offer by Player 2 in period 1. As in the game with complete information, an offer can be accepted, yielding to an outcome  $(X^N, N)$ , or it can be rejected. A rejected offer leads to a subsequent counteroffer.

The particularity of this game played under asymmetric information is that Player 1 must act according to his beliefs about Player 2's type and previous moves made by Player 2, given the history of then game. As the game goes on, Player 1 can update his beliefs, but once he has made his mind regarding Player 2's type, his beliefs remain constant regardless of Player 2's actions.

Using "trembling hands" perfection to resolve this type of game, Bill Clark and I (1995) have provided a formal demonstration indicating that when Player 1 has a small chance to accept a tough offer from a weak Player 2, it pays for Player 2 to bluff, even if Player 1's prior beliefs suggest that he is dealing with a weak Player 1. Consequently, trembling hand perfection suggests a pooling equilibrium whether or not  $\pi_H$  is large or low: even when Player 2 has large bargaining costs ( $2_H$ ), he will behave as if he had low

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<sup>59</sup> For formal proofs see Osborne and Rubinstein (1990: Chapter 5) and an application to trade negotiations seen Duchesne and Clark (1995).

bargaining costs (2<sub>1</sub>). Therefore, asymmetry of information endows Player 2 with increased bargaining leverage, whether he is strong or weak if there is small chance that Player 1 believes that he is strong.

### C) Relationship Between Context and Process (See Figure 4 in chapter 1)

Numerous studies addressed the structural nature of negotiation and the process of bargaining. This research only starts to scratch the surface in an attempt to unveil the problems involved in the study of international trade negotiation. Its value added contribution, however, comes from an effort to systematically bridge the gap between the structure of negotiation and the process of bargaining. This relationship is explored in the next pages.

#### ● Interdependence and Breakdown Costs

**P9:** In a bilateral international trade and investment negotiation, negotiators who represent a country that is highly dependent on the other negotiating country for its supply of international goods have a higher international cost for a breakdown in the negotiations.

Negotiators who represent a nation-state in an international economic negotiation are likely to have higher international costs associated with a negotiation impasse if their nation-state is highly reliant on its trading partner for its exports and investments. Their problem is accentuated if their country is outwardly oriented, that is a large share of the country's GNP comes from trade. If other negotiators represent a country that does not

depend as much on another country for its external exchanges, it can be said that these negotiators have more bargaining leverage due to the fact that they will have less international costs associated with a standoff in the negotiations. These negotiators are in a position of strength because their country is not hit as hard as the previous country if the negotiations break down or if a trade war is initiated. These negotiators can therefore bargain from strength and make implicit threats of trade retaliations if their demands are not met by the negotiators representing the more dependent state.

Let's take a simple example for clarification. Two farmers living on a small isolated island, Sven and Ollie, produce only two products, peanuts and pineapples. Sven can produce peanuts at a very efficient price, but it costs more for him to cultivate pineapples than it would cost him to buy pineapples from Ollie. Ollie can produce pineapples at a very cheap rate, but can get peanuts only from Sven, who has the monopoly on the production of this commodity. In terms of comparative advantage, it is preferable for both farmers to negotiate a trade agreement for the exchange of the two commodities. However, Sven has more bargaining power because in the eventuality that no agreement is reached he can still produce his own pineapples or find another market for his pineapples (Farmer Olaf also cultivates pineapples). Ollie does not have the same luxury. He cannot find alternative markets for his peanuts. Therefore, Sven has more "alternatives" or a higher security point than Ollie, and Ollie is facing higher international costs than Sven regarding a breakdown in the negotiations. This is an extreme example, but I hope that it conveys adequately the general logic sustaining the concept of international costs for breakdown and interdependence of trade.



- **Bilateral Trade Structure and International Costs for Breakdown**

**P10A:** In a bilateral international trade and investment negotiation, a high complementarity of trade leads to high international breakdown costs.

**P10B:** In a bilateral international trade and investment negotiation with a high complementarity of trade, an agreement is likely to occur.

The nature of the goods negotiated also affect the process of an international trade and investment negotiation. A negotiator who asks the leaders of another country to limit some of their exports to his country or who requires a market opening for his country's products and investment is in a position of weakness. It is even more the case when the targeted products are produced by both countries (non complementarity), as in the case of the constant U.S. pressure on Japan to limit its export of some manufactured products into the United States. Such issues of "unfair trade" are often harder to deal with. When the nature of the goods traded are complementary (e.g. natural resources in exchange for manufactured products) both sides may be more dependent on the other side in terms of their trade and are more willing to reach an agreement. Therefore, the more complementary the traded goods are, the higher are the international costs identified with a breakdown in the negotiations. As in the example used above, if the farmers were both producing peanuts and pineapples at different costs they would still benefit from a trade agreement, but they would rather go their own way and break up the negotiations instead of accepting an unfair deal.

- Institutional Constraints and Information

**P11:** In a bilateral international trade and investment negotiation, the more domestic institutional constraint negotiators are faced with, the less information about their type they convey to other negotiators.

Negotiator benefits from good bargaining leverage when the other side is unsure about the true nature of their domestic actors who must ratify an agreement. Negotiators' type depends on the level of domestic institutional constraint they are faced with. Institutional domestic constraint is not only different depending on the level of democratization, such that a study of the dichotomy democracy/autocracy may not be very revealing. For instance, any international actors negotiating with American representatives are never entirely sure about the preferences of the latter since international trade treaties must be ratified by Congress. This information matter puts American negotiators in a position of strength. It is indeed a well-known fact that policy disagreements between branches of government are much more common in presidential systems than parliamentary systems (Stepan and Skatch, 1993) and thus the possibility for "involuntary defection," (Putnam 1988; Iida 1992a, 1992b) to occur at the ratification stage is potentially much greater in the former than the latter.<sup>60</sup> While not absolute, the power of a cabinet to navigate a proposal through a majority held parliament is considerable. Thus, in the CUSFTA case for instance, it is not unreasonable to make the assumption that there is more uncertainty regarding a potential disagreement between

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<sup>60</sup> Recall that Putnam defines involuntary defection as "the behaviors of an agent who is unable to deliver on a promise because of failed ratification"(1988:438).

U.S. negotiators and the Congress than Canadian negotiators and Parliament.

Therefore, in this case, in order to examine the effects of the potential for "involuntary defection" on the content of the agreement, one would examine a finite horizon sequential bargaining model in which the US congress exchanges offers with the Canadian negotiators. In this game, the American negotiators are well-informed about Canada's preferences. Conversely, Canadian negotiators do not have precise information about Congress' preferences. They know that Congress prefers a "good agreement" (one that allows the U.S. to reap a large share of the benefits of agreement) to no agreement, but they do not know whether Congress prefers a "bad agreement" (one that does not allow the U.S. to reap a large share of the benefits from agreement) to no agreement.<sup>61</sup> Thus, the Canadian negotiators are unsure of Congress' "type".

However, official political opposition or domestic division of power is not the only institutional source of uncertainty. Often, in a parliamentary system (or even in more autocratic regimes), the opposition may come from inside the party holding power. For instance, in Japan there exists an important intra-party division regarding issues of foreign trade, while in Canada there is a strong party discipline in Parliament and there is little doubt about where the position of the legislative position on foreign trade lies in comparison to the position of the executive. The possibility of involuntary defection is even greater when dealing with a group of sovereign entities such as the European Union. The bottom line is, as suggested by Putnam's (1988) two-level of analysis

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<sup>61</sup> Alternatively, it can be said that the Canadians are uncertain about Congress' valuation. A "weak" Congress attaches more value to an agreement than a "strong" Congress. Thus making a stalemate in the negotiations less appealing. On the concept of valuation see, among others, Fudenberg and Tirole (1983).

metaphor, that the more diffuse is the domestic ratification process, the more bargaining power that country's negotiators are likely to have in their international dealings. It is even more important when the nature of the information is asymmetrical.

- Political Necessity and Domestic Costs of Delay

**P12:** In a bilateral international trade and investment negotiation, negotiators who have great political need for an agreement face important domestic costs for delays in the negotiations.

A government that counts on a trade agreement to foster its electoral position or to ratchet up its perceived staggering economy is in a weak bargaining position. This government faces a certain domestic cost for any delays in the negotiations. The more salient is the negotiation on the electoral platform, the higher the domestic costs for the government. In such circumstances, the negotiators representing the government may be willing to accept an agreement that only partially fulfill its objectives in order to be able to use the agreement as an electoral argument. Alternatively, it can be modeled in terms of the negotiators' patience. When facing high political pressure for an agreement, the negotiators value the present much higher than the future, that is they highly discount the future.

Let's take for instance the circumstances under which the Canada-United States Free Trade Agreement was negotiated. In Canada, the support for the CUSFTA "seemed soft, but published polls indicated that it was more popular than [Brian Mulroney's party]. Emphasis on the issue thus looked like a promising lever for ratcheting (sic) that

party's back up" (Johnston et al., 1992: 19). Of course, because many Canadians believed that the United States would give up little while Canada would barter away its sovereignty, supporters of the agreement were vulnerable to accusations of having sold out the national interest. This was an argument familiar from earlier trade initiatives. But the Conservatives might still reasonably have calculated that electorally the CUSFTA would save, not sink, them. However low it might seem, support for free trade was at least stronger than the support for the Conservatives. Furthermore, the issue was closely linked to Mulroney's neoconservative agenda. His party's agenda was premised on the idea that Canada must privatize, deregulate, enter trade liberalization agreements, institute international as well as government-industry advisory committees based on the U.S. model, and spend millions on trade missions. As a result, the largely private decisions of the market was to automatically, and somewhat miraculously, produce economic growth, employment, and prosperity for Canada (Wilkinson, 1993: 36). The idea was not so much different than "Reaganomics" and "trickle down economics", but Canada did not have the independent power of the U.S. Congress to strike a balance between international liberal trade and nationalist protection measures to protect and assure the level of competitiveness of its national industry. The polls showed that in a "free trade versus protection" issue, the Canadian population came out in support of free trade in a proportion of approximately 40 percent of the electorate (Johnston et al., 1992: 145-46). This was substantially larger than the Conservative party obtained in published polls from late 1985 to the spring of 1988. Consequently, the free trade discussions were an integral part of the Conservatives' electoral platform, and it was of foremost importance that the party could argue that important progress had been made in the

negotiations. In contrast, in the United States, the CUSFTA was seen as an important issue, but the electoral survival of the leaders of the executive branch did not revolve around the progress of the free trade negotiations. Consequently, the Canadian government was more eager than Washington to reach an agreement, and this, in turn, further reduced its bargaining leverage.

- Societal Support and Domestic Costs of Delay

**P13:** In a bilateral international trade and investment negotiation, the greater negotiators' societal support is, the less domestic costs for delays in the negotiations they are faced with.

The societal support component of the model is the flip side of the previous dimension. It relates to the willingness of the domestic society to incur short term costs for a delay in the negotiations in exchange for long term benefits. In other words, negotiators can count on domestic support for a delay in the negotiations until they can meet a great majority of their objectives. Consequently, a high level of societal support diminishes the level of domestic costs that the government is facing.

Again, let's take an example from the CUSFTA to demonstrate the effect of the societal dimension. It is common knowledge that American companies "owned over 40 percent of Canada's manufacturing output, and engulfed Canadian culture via its television programs, movies, videos, and magazines" (Wilkinson, 1993: 34). There is thus no element of surprise in the fact that the transnational corporations (TNC) community in Canada, both foreign and domestically owned, saw, and still see, its long-

run well-being associated with the ups and downs of the American economy. They have more interest in supporting the economic vision of Washington rather than Ottawa's. According to Wilkinson, "it is thus worth noting that firms operating in Canada, even when Canadian-owned and/or -controlled, have (unlike their counterparts in the United States, The EC, and Japan, where loyalties are strong), had little, if any, commitment to building the Canadian economy" (1993: 36). In fact, the point is made by a myriad of Canadian analysts that the CEO's of these firms, as any rational actors, had as a prime concern not the betterment of Canada, but their own continuity, growth, and profits (Grant, 1965; Kierans and Stewart, 1988; Shortell, 1991). Therefore, given that these companies see their fates associated with the state of the American economy, it would rationally be optimal for them to support an agreement that would be in line with American interests, rather than Canadian objectives.

The most important partners of the Canadian government was the business community, more specifically the numerous MNCs operating in Canada. As observed above, the loyalty to building the Canadian economy of the CEO's of these firms, even if Canadian-owned, is questionable. In contrast, in the United States an elaborate structure of business-government cooperation has been developed under GATT negotiations. South of the border, the loyalty of "Corporate America", is not as questionable. What is typically thought to be good for General Motors is good for America! As Sylvia Ostry, principal Canadian negotiator of the NAFTA, has commented, "to the outside observer [the business-government cooperation in the United States] presents an impressive image of 'U.S.' Inc." (1990: 25).

### III- Nature of Outcomes in International Economic Negotiations

I have so far discussed all the independent elements of analysis that I believe influence the partition of the surplus derived from an international trade and investment negotiation. A very critical question remains. How do we measure the outcome of a trade negotiation? That is, how can we find refutable and replicable conditions that indicate which party reaped the most of the benefits from the agreement? This is no small task. If we were only interested in the success or not of negotiations, the assignment would be much easier. We could affirm that negotiations were successful or unsuccessful, depending on whether a single agreed upon value has been adopted as the result of the bargaining: "[A]n agreement is acceptable as *prima facie* evidence of "success" since it can be assumed that no party would agree to a value that he viewed as being worse than the value of nonagreement" (Zartman, 1976: 7-8).

The problem with explaining the distributive effects of negotiation is an age old one. Unfortunately, very little progress has been made in this direction. The predicament resides in the fact that, too often, researchers have sought their answers in terms of single case studies "and [have been] thrown back to situational and historical descriptions of essentially unique events" (Zartman, 1976: 18). When the attention has turned to more abstract analysis of universal situations either in symbolic or mathematical terms, the interest has swerved towards theoretical underpinnings of negotiations, rather than towards a single negotiation. This leads us back to the fundamental questions that we were asking at the onset of chapter one. What are the best variables for analyzing the process of bargaining? How can theoretical variables be translated into practical terms? The *modus operandi* of this analysis proposes that an answer must be sought in



the interplay of the negotiation structure and bargaining process. As such, a series of dimensions of negotiation and bargaining variables have been identified in the previous sections. It is not my contention that this research design is the universal answer that students of negotiations have sought for eons. My goal is to provide a logical structure for the interrelation between the structure of negotiation and process of bargaining. An adequate measure of the distributive effects of an outcome<sup>62</sup> (and *de facto* a theory of negotiation) will only arise when explanations will be cast in terms of fully operationalizable variables that can be applied to real cases. Seen in this light, this model represents an important step in a research programme, but the project can only come to fruition when its research design is extended to a large number of cases with fully operationalizable and refutable variables.

With these caveats in mind, I can introduce how I intend to "measure" the distributive effects of international trade and investment bargaining. The most logical answer is to assume that the party that has more power will receive more of the benefits derived from the agreement. However, we have seen above that the tautological nature of such approach does not reveal the true nature of negotiation. The problem remains one of defining power before--and hence, independently--of outcome. That's what most of the previous pages have been about.

I propose to measure the outcome of an international trade negotiation as the

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<sup>62</sup> The distributive effects of negotiation that I intend to measure are those that accrue to the nation-states involved in the bargaining process. It seeks to answer the question "Which country reaps most of the benefits that are produced by the agreement?" I do not intend to look at the distributive effects of the agreement in relation to domestic groups. This aspect of the research is only considered in terms of determining which type of domestic support will the governmental negotiators get during negotiations.

intersection of policy options proposed by the negotiators. By policy option I mean a set of prescriptions suggested by one of the parties regarding the future economic relationship between the parties. By focusing on the monetary aspects of the intersection of different suggested policy options, we can assign a dollar value. Such an approach is appealing for its simplicity, but "it is dependable only for the most purely economic situations" (Cross, 1969: 11). Nevertheless, even though it may not be extended to any instances of negotiation<sup>63</sup>, it appears that such a measure provides an adequate template for international trade and investment negotiation outcomes.

In most cases, such as when the United States threatens to use Section 301 (Bayard and Elliot, 1994), dollar values can easily be assigned to the intersection of policy options sought by the respective negotiators. Even when the negotiation is a much more complicated process, such as the CUSFTA, this approach has a clear advantage: multiple issues can be brought back into a single issue dimension through their transfer into a single utility dimension (dollar values). One obvious drawback of this approach is that when applied to complex cases involving multiple issues, it becomes nearly impossible to come close to the real dollar figures associated with the intersection of policy outcomes. However, we must keep in mind that we do not need a knife-edged measure of the outcome of an international trade negotiation, but we can find an almost as satisfying answer by discovering a measure of the outcome that indicates a relative partition of the benefits derived from the outcome. Furthermore, some of the more complex cases have led to a great number of assessments, and it is thus relatively

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<sup>63</sup> It has also the drawback of not considering the personal motivations of the negotiators.

uncomplicated to assess dollar values to the intersection of different policy options. Therefore, for each case, the still-imperfect solution would be to identify the respective policy options that were proposed by the parties and then evaluate the dollar value of the intersection of the policies chosen as an outcome.

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This research represents a modest attempt at moving beyond the concept of structural power in order to explain the outcome of international commercial negotiations. It borrows from studies in political science focusing on the context of those negotiations, and from studies in economics that concentrate more on the process of negotiation. It represents an attempt to bridge the gap between the two approaches. Its interpretation is limited if it is not tested "statistically." With this in mind, I now turn my attention to the empirical aspects of my dissertation.

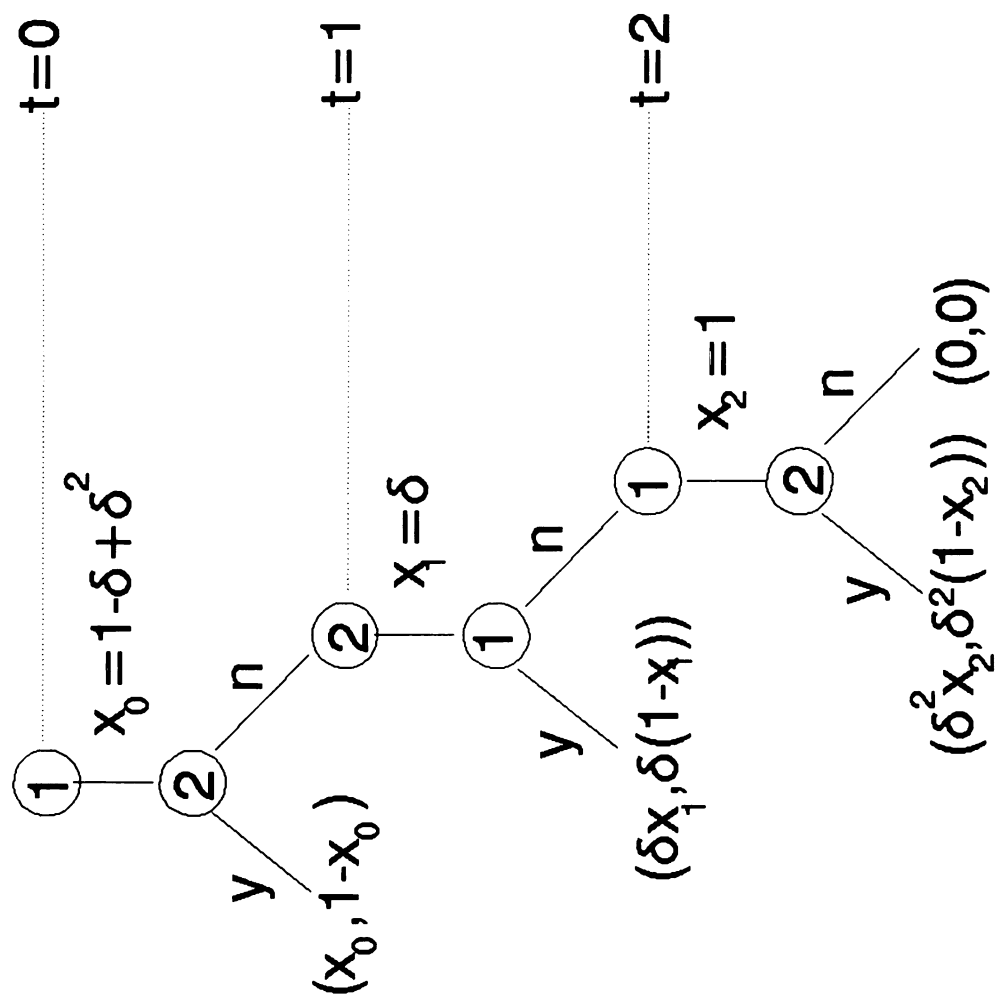


Figure 5: Stahl-Rubinstein Bargaining Model Under Perfect Information

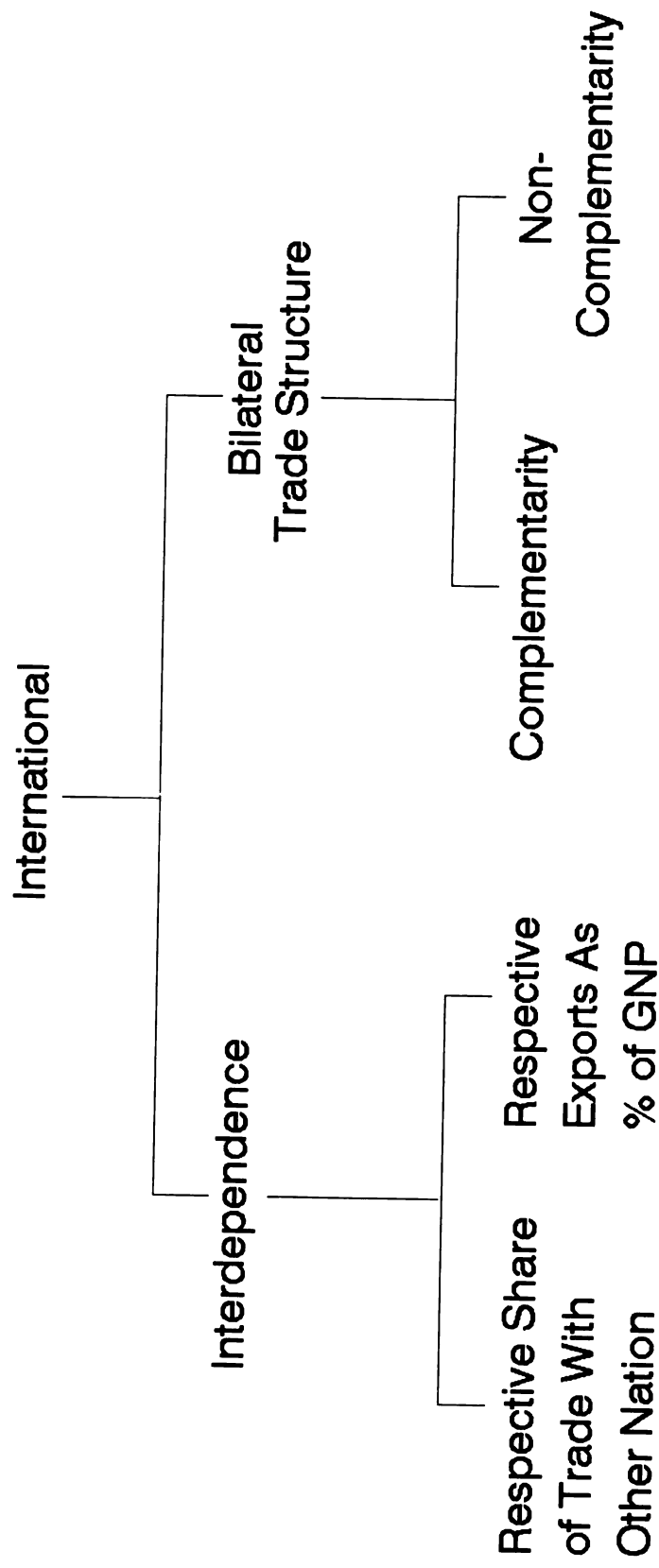


Figure 6: International Dimension

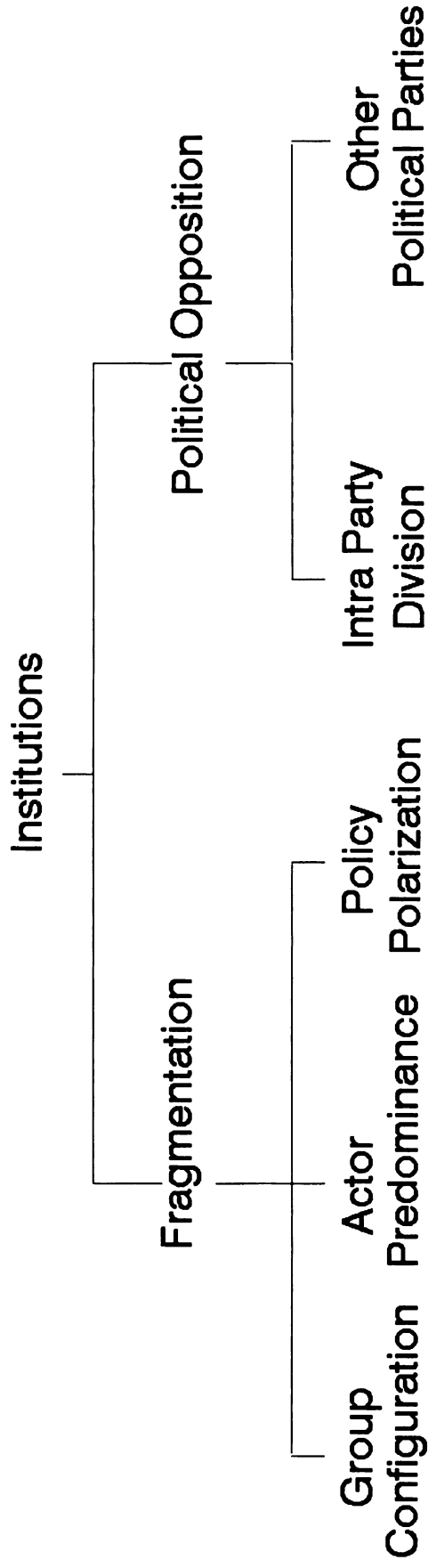


Figure 7: Institutional Dimension

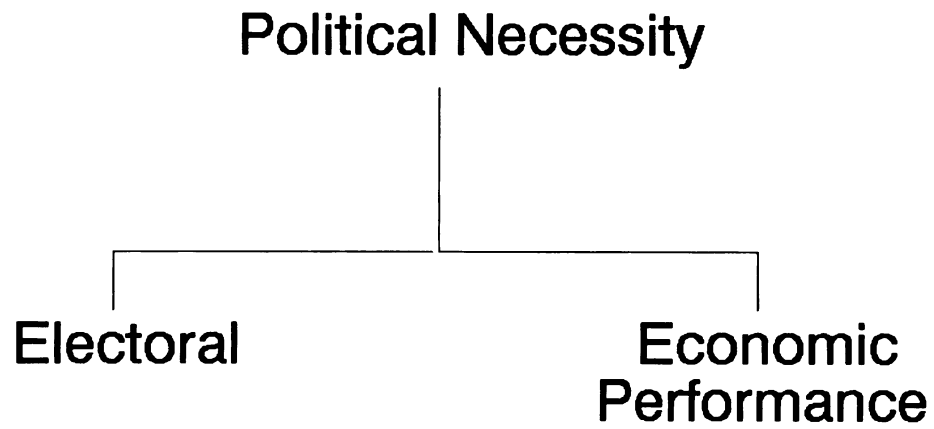


Figure 8: Political Dimension

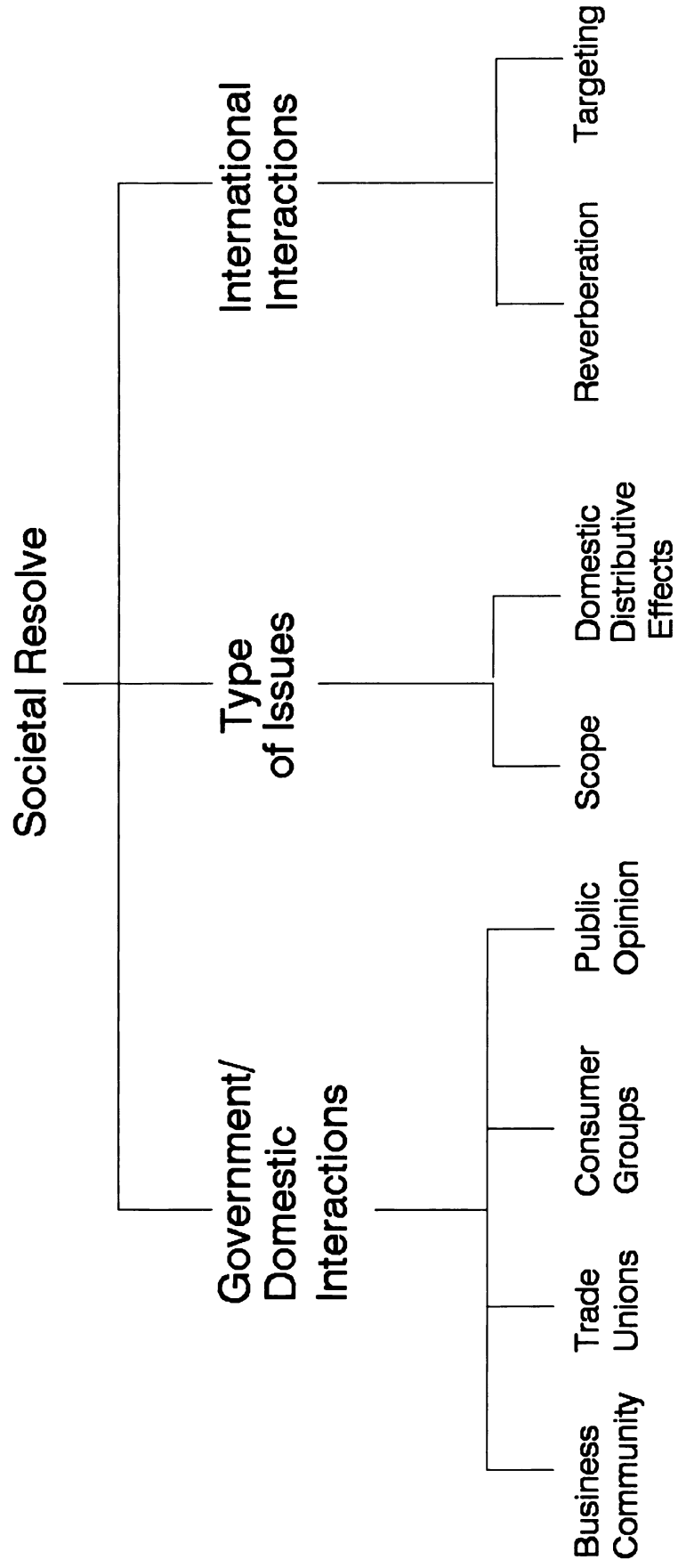


Figure 9: Societal Dimension



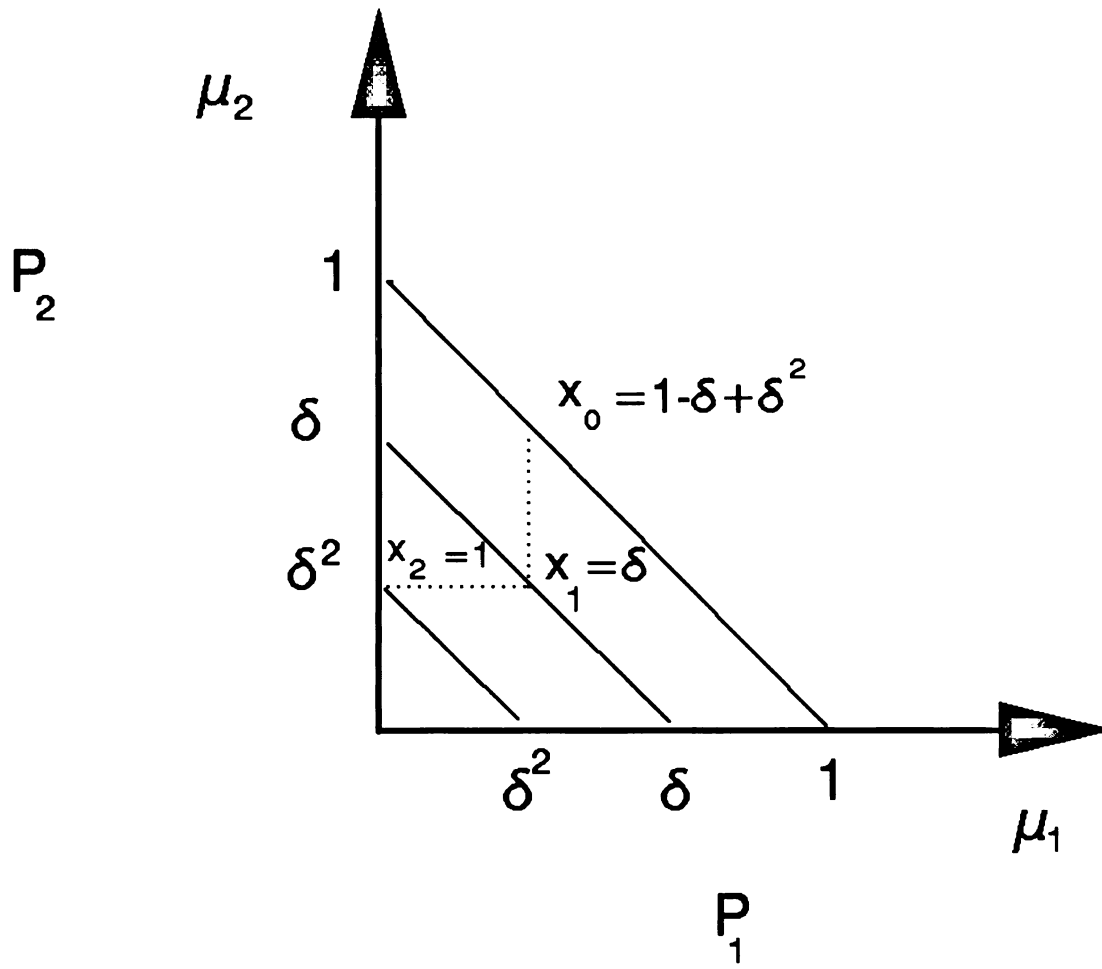


Figure 10: Effect of Discounting

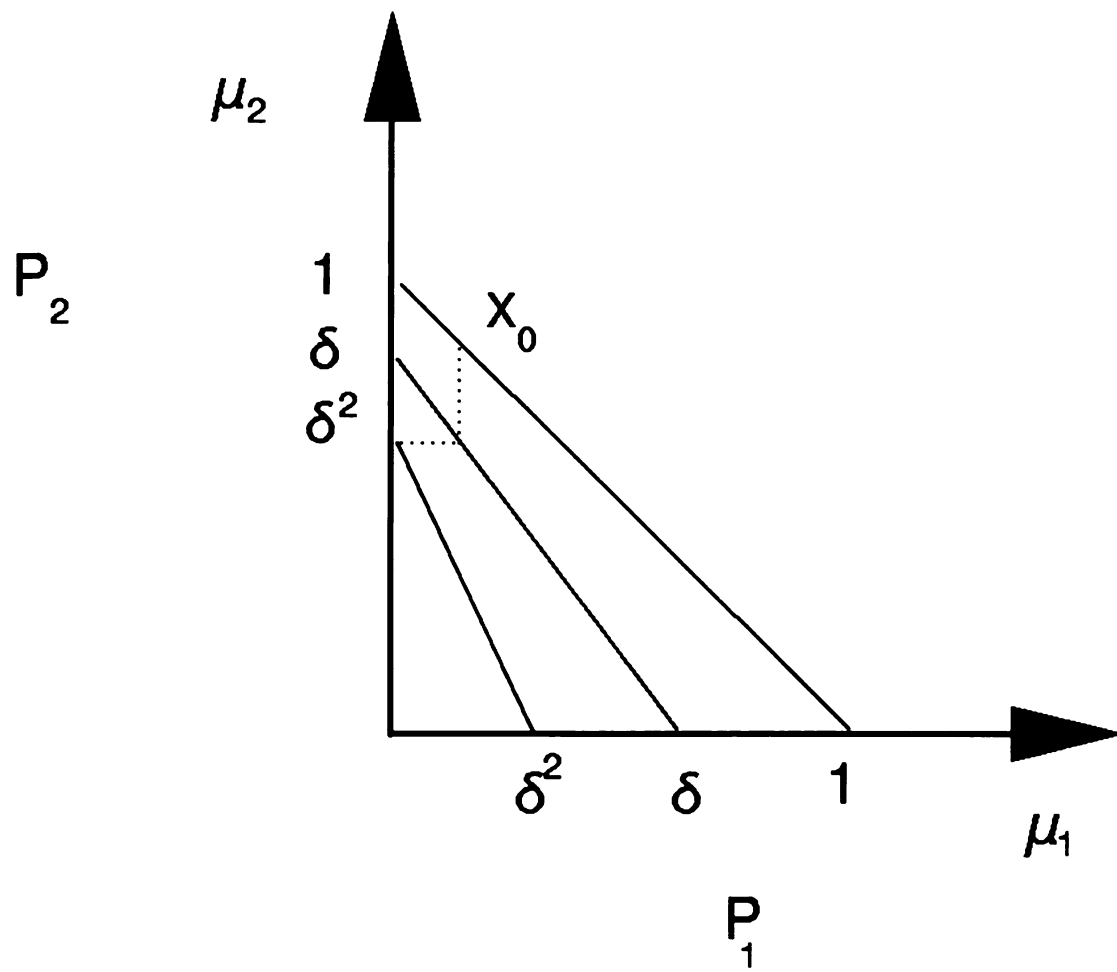


Figure 11: Effect of Discounting With Different Discount Parameters



## **CHAPTER 4**

### **Structure of Empirical Test and Hypotheses**

#### **I- Empirical Test Strategy**

The previous chapters introduced a theory and a model of international trade and investment negotiations. The theory, especially, presents an ideal-type of the structure of international negotiations. As such, an empirical test that would follow closely the propositions enumerated in Chapter 3 requires an important time consuming effort, especially in terms of data gathering activity, that is better suited for a research group. Nevertheless, this theory of international trade negotiations could easily be applied to an in-depth analysis of a few cases. When dealing with a great number of cases, the task is more difficult<sup>64</sup>.

With these caveats in mind, I decided that the next best option was to look for a data set that includes some of the variables--or, at least, some proxies--needed to test the model and propositions of Chapter 3. Two members of the Institute for International Economics, Thomas O. Bayard and Kimberly Ann Elliot, published a book (1994) that evaluates the degree of success for the American negotiators when they resorted to the Section (Super) 301 policy instrument to get foreign trade partners to liberalize their

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<sup>64</sup> Some related works applied a cost-benefit analysis to trade protection and enhancement (Baldwin, 1985; Destler and Odell, 1987; Lavergne, 1993; Noland, 1997), while others looked at institutional features of domestic policies (Grossman and Helpman, 1994; Magee, Brock, and Young, 1989; Rodrick, 1994). This study incorporate the two approaches.

commerce. Their research will serve as a baseline for the empirical testing of this dissertation. Still, we need to be cautious with the interpretation of the results. The use of Section (Super) 301 is a very special case of international trade negotiation; an instance where the Americans already dealt the cards by accusing a target of unfair trade practices. As such, it is very different from circumstances when both parties enter willingly into a negotiation, in order to reach an agreement beneficial to all in terms of liberalization of trade. Nevertheless, this use of retaliation and reciprocity by Americans represents a suitable test of the theory and model discussed in the two previous chapters: First, one of the players, the United States, is the same for all cases. It is especially interesting, given that the United States is considered to be the most powerful economic and military power on the planet (hegemon). As such, we would expect, if we believe in the notion of aggregate power (or fungibility of power), that the United States would come on top in all situations of negotiations. Such is not the case. Second, Bayard and Elliot demonstrate that the United States obtain various degrees of success with "small", as well as with "large" economic powers. This indicates that a unique reliance on trade interdependence for an explanation of the outcomes of international trade negotiations, can be misleading. Consequently, we also need to look at domestic institutions to add some value to our analysis. Third, Bayard and Elliot's results also show that the American negotiators obtain varying degrees of success **with the same target**. This, again, show the inefficacy of a model that does not go beyond institutional constraints variables. Thus, there exists a need to look at a case by case analysis of domestic support from the population and political necessity for the negotiators. This last level of analysis is the most difficult to attain when time comes to test the some hypotheses

representing the propositions of this dissertation. For this reason, it is probably the weakest part of the test that I propose below. Nevertheless, if we obtain good results by using some proxies, it augurs well for a fully developed analysis coinciding more closely with the variables, indicated in the previous chapter, regarding the domestic support and political necessity dimension of the theoretical model.

Before pursuing with the description of the variables included in the empirical test, a few words on the Section (Super) 301 policy instrument are necessary <sup>65</sup>. After the end of World War II, US trade policy rested firmly on multilateral institutions such as the General Agreement on Tariffs and Trade (GATT) and the International Monetary Fund (IMF). This commitment to multilateral instruments of trade weakened at the beginning of the 1970's. From that point on, the United States engaged itself in a tougher bilateral stance. The main reasons for a decline of multilateralism are "the decline in US hegemony, the increase in international economic interdependence, and the fact that many Americans now view the field on which the trade game is played as unfairly tilted against US competitors" (Bayard and Elliot, 1994: 9).

In the wake of the collapse of the Bretton Woods international economic system and the oil shock of 1973, the American Congress became more assertive. This new optic regarding international trade was well articulated in 1973 by, then Secretary of Treasury, George Schultz, in congressional hearings on what became the Trade Act of 1974:

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<sup>65</sup> For a detailed assessment of the evolution of Section (Super) 301, see Bayard and Elliot (1994), especially Chapter 2.

Today, economic power is not concentrated in the United States alone as it was thirty years ago. Great centers of wealth have grown up in Europe and Japan... However, along with this diffusion of power has gone a reluctance to remove restrictions that are contrary to the principles of an open world economy... In this changed world of economic equals we need to deal with those restrictions, and we need new rules to assure equality of responsibility. (US House of Representatives, Committee on Ways and Means, 1973: 159)<sup>66</sup>

The Trade Act of 1974, under Sections 301-302, "expanded discretionary authority to retaliate against unjustifiable and unreasonable foreign barriers" (Bayard and Elliot, 1994: 24). More specifically, it authorized action against foreign exports subsidies. The Trade Act of 1974 was expanded by the Trade Agreement Act of 1979; in which the President was given the authority to enforce trade agreements. It also allowed for detailed procedures for investigation (including deadlines for action), and the use of available settlement procedures (*Idem.*). Later, retaliation in the service sector was authorized by the Trade and Tariff Act of 1984 (*Idem.*). Finally, "Super 301" was created by the Omnibus Trade and Competitiveness Act of 1988, which shifted the authority to retaliate from the president to the United States Trade Representative (USTR), specific to some presidential directives (*Idem.*). It also made retaliation against "unjustifiable" practices mandatory.

Hence, in order to test my theoretical and formal models, I intend to use the information included in Bayard and Elliot (1994) work on the United States use of Section (Super) 301. They identify 91 cases between 1974 and June 1994, from which 75 led to negotiations with known results between the United States and the targeted

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<sup>66</sup> Cited in *Ibid*, p. 13.

country<sup>67</sup>. Consequently, I am testing the level of success attained by American negotiators in terms of achievement of their objectives. For each case, Bayard and Elliot have collected the following information: period of case, type of product, actual value of US exports to the target (specific contested product), existence of a GATT panel to resolve the case, existence of a GATT ruling, negotiating objectives success for American negotiators, and degree of trade liberalization resulting from Section (Super) 301. Some of this information is useful for the empirical testing that follows in the next chapter.

## **II- Method of Analysis.**

Given that the dependent variable contains four (ordered) categories (see section III), I use a multinomial ordered logit analysis.<sup>68</sup> In this test of American negotiating success (see next section), a multinomial logit or probit analysis would be inadequate, because it would fail to account for the ordinal nature of the dependent variable. However, ordinary regression analysis would err in the opposite direction. An ordinary regression would treat the difference between a level of success of 4 and 3 as the same as a difference between a level of success of 2 and 3. The difference between these

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<sup>67</sup> The cases excluded are indicated in Bayard and Elliot (1994: 59, n.3). I retained their cases # 301-83, 301-88 and 301-89, because they provide the assessment on the information I need. Their concern is that they do not have enough information regarding trade liberalization following the use of Section 301. However, they provide the information on the value of the contested goods and the level of success for the American negotiators, which is what I need for my analysis. I also treated their case # 301-85 as two cases regarding intellectual property negotiations with India because they provide different assessments of the American success; one on copyright and film quota, and one on pharmaceutical.

<sup>68</sup> The statistical package I used was STATA 4.0 for Windows.



levels of success are not necessarily the same; they depend on the estimated cut points ( $\mu$ 's). These  $\mu$ 's are unknown parameters to be estimated with  $\beta$  in the following equation:

$$y^* = \beta x + \epsilon \quad (1)$$

as usual  $y^*$  is unobserved. What we observe is<sup>69</sup>

$$\begin{aligned} y &= 0 & \text{if } y^* \leq 0 \\ y &= 1 & \text{if } 0 < y^* \leq \mu_1 \\ y &= 2 & \text{if } \mu_1 < y^* \leq \mu_2 \\ & \vdots \\ y &= J & \text{if } \mu_{J-1} \leq y^* \end{aligned} \quad (2)$$

It is therefore clear that there is not necessarily an equal difference between cut points ( $\mu$ 's), thus the superiority of an ordered logit (or probit) analysis over a multivariate regression analysis for the testing of the propositions of this dissertation.

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<sup>69</sup> In the following equations, the mean and variance of  $\epsilon$  are normalized to zero and one. Greene (1993: 673) indicates that the model can also be estimated with a logistically distributed disturbance. He adds that this is a "trivial modification of the formulation appears to make virtually no difference" (*Idem.*). When we assume normal distribution, we do an ordered multinomial probit analysis, while when we assume logistically distributed error terms, we do an ordered multinomial logit analysis. A visual inspection of the data convinced me of a logistic distribution of the data. I also ran the model with ordered logit and probit, and had slightly better results with a logit analysis. I shall give a more detailed description of ordered multinomial logit analysis in the next chapter.

### III- Dependent variable.

The previous chapters discussed how we can appraise the success of negotiators in a bargaining encounter. For the remainder of this dissertation the focus is on the bargaining success of a group of negotiators representing Washington. Now, the question becomes: which aspects of the structure of negotiations affects the bargaining success of the U.S. trade representatives?<sup>70</sup> This, in itself, is no small task. Fortunately, we can count on Bayard and Elliot (1994) monumental study of Section (Super) 301 to provide a solid foundation on which we can build. Hence, in order to measure the United States' level of success in their negotiations with targeted countries after the implementation of Section (Super) 301, I use Bayard and Elliot (1994: 63) categories<sup>71</sup>:

|                                      |                                                                                            |
|--------------------------------------|--------------------------------------------------------------------------------------------|
| <b>Failures</b> (coded as 0):        | The case was not implemented to US satisfaction, or it was circumvented in some other way. |
| <b>Nominal success</b> (coded as 1): | A case in which an agreement was reached but not implemented to US satisfaction.           |
| <b>Partial success</b> (coded as 2): | A case in which only some of the US objectives were implemented.                           |
| <b>Success</b> (coded as 3):         | A case in which the US objectives were totally or largely implemented.                     |

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<sup>70</sup> Obviously, ultimately students of international negotiations need to develop a framework an empirical analysis that can appraise the level of success for all sides of the bargaining table. At this time, with the data at hand, it is only possible to assess the bargaining success of Washington.

<sup>71</sup> Bayard and Elliot use a probit regression analysis by dividing the dependent variable into two categories (success and failure). It may be because they did not get significant results by using their four initial categories. It may also be because they did not have the program to run an ordered multinomial logit. I shall demonstrate in the next chapter that we obtain better results by using ordered logit than by using probit or logit analysis.

To help the reader understand the meaning of each degree of success, I give here a brief example of each category. These examples are taken from assessments by Bayard and Elliot (1994).

**A) Failure: Challenging European Community (EC) Export Subsidies for Barley** (Bayard and Elliot, 1994: 378-79)

In November 1975, Great Western Malting Co. filed a petition claiming that EC subsidization of malt exports to Japan and other countries was an unfair practice. The company complained that it lost almost all of its Japanese market due to EC export subsidies. The USTR did not file an official complaint under the GATT dispute settlement procedures, but brought the problem to the attention of the European Community Commission in 1976. Then, claiming that the Tokyo Round Subsidies Code had addressed the issue in 1977, action under Section 301 was no longer necessary. Thus, the complaint was dropped, effective 19 June 1980. However, the EC practice continued. In 1992, the United States Department of Agriculture (USDA) announced, in retaliation, a new package of Export Enhancement Program (EEP) for barley malt.

Bayard and Elliot assessment (1994: 379):

The Subsidies Code did not resolve the problem of agricultural export subsidies, and average US exports declined by \$1 million in 1977-79 compared with 1974-76, while EC exports to Japan returned to previous levels after a temporary decline in 1977.

**B) Nominal Success: A GATT Illegal Ban On Imports of Cigarettes By the Thai Government** (Bayard and Elliot, 1994: 449-50)

In April 1989 the US Cigarette Export Association (CEA) filed a petition complaining that Thailand maintained an effective ban on imports of cigarettes and prohibited foreign investment in cigarette manufacture. Thailand initially rejected an

American effort to create a panel to discuss the issue, but acquiesced when the issue was brought to a GATT panel in April. In September the GATT panel ruled that Thailand's practice breached Article XI of GATT and were not justified under Article XX (exceptions to protect health and safety), but denied an American claim that Thailand's excise tax violated the national treatment requirements of Article III. Given this mixed result before a GATT panel, the USTR proposed a retaliatory "hit list" to enforce compliance by the Thais. Following the threat, Bangkok expressed a willingness to negotiate and bilateral negotiations started. On November 23 1990, USTR announced that the case was dropped after the Thai government announced that it would no longer ban the importation of foreign cigarettes. It would appear that this would constitute a case of success for USTR, but the further developments led Bayard and Elliot (1994: 449) to propose an assessment that only claim nominal success for the Americans:

Thailand eliminated the practices that had effectively prevented cigarette imports, but GATT-legal tariffs and taxes kept US exports low. By summer 1991 US cigarette brands were still only available in duty-free shops in Thailand because the combination of a (nondiscriminatory) 55 percent excise tax on top of a 30 percent import duty priced them out of the market.

C) Partial Success: Korea's Tariffs and Quotas On Table Wine Imports (Bayard and Elliot, 1994: 442-43)

In April 1988 the Wine Institute and Association of American Vintners filed a petition complaining that Korean tariffs and quotas on table wine imports (and other measures) impeded access to the Korean wine market. The next year the United States and Korea reached an agreement to provide nondiscriminatory treatment for wine imports. Bayard and Elliot indicate that a good settlement was agreed upon, but there

are still some problems with implementation (1994: 443):

Though the liberalization Korea promised was significant, there have reportedly been problems with implementation [...]. The limited trade data available do not show much of an increase in US exports, certainly not to the levels the petitioners anticipated [...]. Nevertheless, the case is judged as a partial success.

D) Success: Taiwan's Import Duties On Household Appliances (Bayard and Elliott, 1994: 383-84)

Lai Fu Trading Co., an American enterprise based in Taiwan, filed a complaint in March 1976, claiming that recent increases in import duties on certain household appliances (consumer electronics especially), discriminate against U.S. commerce in the Taiwanese market. Taipei retorted that the measure was only temporary and was only in effect for a short period. Taiwanese representatives added that their objective was to deal with balance of payments pressures resulting from the global recession. At first, USTR accepted the Taiwanese argument, but when it became apparent that the tariffs were still in place long after the balance of payment rational had disappeared, the United States opened bilateral consultations with ROC seeking removal of those surcharges. The charge was dropped in December 1977, when Taiwan agreed to lower its tariffs at least to their level prior to 1975.

Bayard and Elliot (1994: 384) assessment:

US negotiators not only achieved a reversal of the increased tariffs, the tariffs on some items were lowered still more. Trade data also show US exports of consumer electronics increasing nearly 40 percent [...] after the tariffs were lowered [...].

Let's now turn to the description of the independent variables.

#### **IV- Independent Variables<sup>72</sup>**

##### **A) International Dimension**

###### *i- Interdependence*

The general proposition here is that in "a bilateral trade and investment negotiation, a nation-state that is less dependent on another state for its commercial exchanges has more bargaining power than the second nation-state". For this specific analysis, we should reread the proposition as "the lower the relative trade dependence the United States has upon the target, the most successful it will be in achieving its objectives."

One way to evaluate a trade interdependence between two nations is to compare the respective share of total exports of one country that comes from exports to the other country. That is, for each country involved in a dispute, we need to calculate the percentage of its external output that is accounted for by its exports to other countries being part of the negotiations. Finally, we take the ratio of these calculated values. In the specific case of this dissertation, the following hypothesis<sup>73</sup> regarding direction of trade and bargaining position is proposed:

- H1 When a larger share of the United States' exports are going to a target country (or group of countries) than the share of a target country's (or group of countries') export going to the United States, American negotiators are in a weakened bargaining position when they use Section (Super) 301.

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<sup>72</sup> See Appendix B for a glance at a description of all the variables included in the empirical (statistical) test.

<sup>73</sup> For a list of all hypotheses see Appendix C.

and to account for this variable we need to calculate the following<sup>74</sup>:

|                |                                                                                          |
|----------------|------------------------------------------------------------------------------------------|
| <b>USTOUT:</b> | Annual United States' Trade Output (in billions)                                         |
| <b>TATOUT:</b> | Annual Target's Trade Output (in billions)                                               |
| <b>USEXP:</b>  | Annual United States' Exports to the Target (in billions)                                |
| <b>TEXP:</b>   | Annual Target's Exports to the United States (in billions)                               |
| <b>TSHOUT:</b> | Target's Share of United States' Trade Output ( $\text{USEXP}/\text{USTOUT} * 100$ ) (%) |
| <b>USHOUT:</b> | United States' Share of Target's Output ( $\text{TEXP}/\text{TATOUT} * 100$ ) (%)        |
| <b>DEP:</b>    | Ratio of TSHOUT over USHOUT                                                              |

It can then be said that the trading partners are symmetrically dependent if the ratio is roughly equal to 1. The United States is said to be more dependent upon the target (instead of the reverse) if the ratio is greater than 1. Conversely, the United States is said to be less dependent upon the target (instead of the reverse) if the ratio ( $r$ ) is:  $0 < r < 1$ . Consequently, the United States is assumed to have less bargaining leverage in the first scenario than in the second scenario. In terms of the statistical analysis, I expect the variable to post a negative sign.

However, a nation-state may be highly dependent on another state for its external exchanges, but international trade may only be a small subset of its entire economic strength. Therefore, it is also important to control for a nation's export as a percentage

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<sup>74</sup> The source for USTOUT, TATOUT, USEXP, and TEXP is FMI, *Directions of Trade...*, country tables. I used the DOTS World Total. A special table from the same document indicate the European Union (or EEC) exports. When the negotiations lasted more than a year, I calculated the yearly average. The values are indicated in billions of current US dollars. The trade output of Taiwan is not indicated in the FMI document. For this I used The Republic of China, 1992, *Taiwan Statistical Data Book*, Taipei, Economic Planning Council, Executive Yuan, for the 1976/77, 83/84, and 86 data. For the 1992 data, I used The Republic of China, 1994, *Monthly Bulletin of Statistics of the Republic of China*, Vol. 20, No 1 (Jan.), Taipei, Directorate-General of Budget, Accounting & Statistics, Executive Yuan.

of its GNP (**DEPGNP**). Hence, I propose the following hypothesis in regards to trade dependence:

H2: When a larger share of the United States' gross national product (GNP) is generated by its exports to a target country (or group of countries) than the share of a target country's (or group of countries') gross national product (GNP) generated by its exports to the United States, the American negotiators are in a weakened bargaining position when they use Section (Super) 301.

To account for this variable these additional indicators are needed:

**USGNP:** Annual United States' GNP (in billion)  
**TGNP:** Annual Target's GNP (in billion)<sup>75</sup>  
**USXGNP:** United States' Share of GNP accounted for by Exports to Target  
 (USEXP/USGNP \* 100) (%)  
**TXGNP:** Target's Share of GNP accounted for by Exports to the United States  
 (TEXP/TGNP \* 100) (%)  
**DEPGNP:** Ratio of USXGNP over TXGNP

Once again, it can then be said that the trading partners are symmetrically dependent if the ratio is roughly equal to 1. The United States is said to be more dependent upon the target (instead of the reverse) if the ratio is greater than 1. Conversely, the United States is said to be less dependent upon the target (instead of the

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<sup>75</sup> The source for the GNP of the US and targets is taken from the World Bank's *World Table*. This document does not have the GNP in US current dollars. However, it has the GNP in current US dollars per capita and the population. Thus I have multiplied these two values. The values indicated are in current billions of US dollars. No aggregate data for the European Union are indicated. I had to add the GNP of each member of the Union in order to get an aggregate value. When the negotiations lasted more than a year, I calculated the yearly average. GNPs for the USSR and Taiwan were not available in the IBRD document. Therefore, I had to rely on Republic of China, *Taiwan Statistical...* and *Monthly Bulletin...*, *op. cit.*, for the data on Taiwan. For the 1977/78 GNP of the Soviet Union I relied on United States Central Intelligence Agency, 1979/80, *National Basic Intelligence Fact book*, Washington, D.C., Central Intelligence Agency. For its 1979 GNP, I used Jennifer Carr, 1982, *The USSR: A Statistical and Marketing Review*, Warwick, U. of Warwick Statistics Service, table 2.2, p. 22.



reverse) if the ratio ( $r$ ) is:  $0 > r > 1$ . Consequently, the United States is assumed to have less bargaining leverage in the first scenario than in the second scenario. In terms of the statistical analysis, I expect that the variable will post a negative sign.

ii- *Trade Structure and Threat Credibility.*

The general model indicates that an agreement is more likely if the trade structure among the two negotiating parties is complementary. This variable is less salient in the specific model. Indeed, the specific model is concerned with the possibility of trade reciprocity and retaliation by the United States. The real issue then is to find under which circumstances is the United States able to commit a credible threat of retaliation. Ideally, in terms of trade structure, a good measure would be to look at the concentration of production of the targeted product by the threatened country and the possibility of alternative sources for the United States. That is, if the targeted country is a large producer of the product targeted by the US, it becomes difficult for the latter to make a credible threat of imposing a tariff on the targeted product. Such measure, however, may be difficult to find in the short term and it does not apply to all cases. Consequently, this endeavor is postponed until post-doctoral research.

Another, and easier way to measure the threat credibility of retaliation of the United States is to concentrate on the cases in which the United States can exert a **direct** and **unilateral** retaliation. As such, these cases refer to instances where the United States can use commensurate tariffs and/or quotas directly on the targeted product. In other cases, such as intellectual property or technical, environmental and health standards, direct commensurate measures of retaliation are harder to evaluate and

therefore the threat is less credible. Consequently, I use Bayard and Elliot's (1994) dummy variable (**ISSUE**) that is scored as a 1 if the trade barrier in dispute is a tariff or an import or export quota and 0 otherwise. The specific hypothesis is the following:

**H3:** The American negotiators have more bargaining leverage in their use of Section (Super) 301 when the issue debated is about tariffs and/or quotas than when the issue debated is about intellectual property or technical, environmental and health standards.

and the variable created is:

**ISSUE:** Issue concerns a tariff or an import or export quota (coded as 1, 0 otherwise).

The sign of this variable should be positive in the statistical analysis.

## B) Domestic Dimension

### i- *Institutional Constraint*

For this variable, I think that the best test would be to replicate Hagan's (1993) measure of political opposition. However, this amounts to a time-consuming enterprise and I do not intend to pursue it at the dissertation stage of this research agenda. In the meantime I propose to proceed as described below.

This variable is concerned with the level of politization of the issue being negotiated. It refers to what Putnam (1988) coined "involuntary defection." This refers to the fact that an agreement may be signed, but not ratified. Hence, there is always the possibility that domestic political opposition will "veto" the agreement. This domestic political opposition is considered as a source of bargaining power in the international

bargaining process because negotiators may say something like "this agreement looks fine to us, but it doesn't stand a chance of being ratified at home." Consequently, their bargaining leverage is increased and we can advance the following proposition: "The higher the institutional domestic constraint faced by a negotiator, the higher her bargaining leverage in a bilateral international trade and investment negotiation."

I propose to use two different indicators, one for the United States and one for the target. For the United States I will rely on a measure used by Lohmann and O'Halloran (1994) called **DIVIDED**. This indicator measures the level of division among different branches of government. The most divided government is when the presidency is controlled by one party and both Houses come from another party. The government is also divided, but with a lesser degree of opposition from the legislative, when the latter is divided. It is undivided when the Senate, the House, and the presidency is controlled by the same party.

The following table recaps the nature of the indicator<sup>76</sup>:

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<sup>76</sup> When the negotiations last more than one year, I use the date when an agreement was signed. As the breakpoint of a change in the Presidency I use January 20 following each electoral year, which is when the new President takes power. The similar breakpoint for Congress is January 3 of each odd year.

TABLE 2  
American Institutional Division

| President | Senate Majority | House Majority | DIVIDED |
|-----------|-----------------|----------------|---------|
| DEM       | DEM             | DEM            | -1      |
| DEM       | REP             | DEM            | 0       |
| DEM       | DEM             | REP            | 0       |
| DEM       | REP             | REP            | 1       |
| REP       | DEM             | DEM            | 1       |
| REP       | DEM             | REP            | 0       |
| REP       | REP             | DEM            | 0       |
| REP       | REP             | REP            | -1      |

The most divided government being represented by a 1 and the least by a -1, we should expect a positive value for this indicator. Therefore, I propose the following hypothesis:

**H4:** The more divided the United States' government is, the higher rate of success for the American negotiators in their use of Section (Super) 301.

The other side of the coin is the level of domestic institutional opposition faced by the target country's negotiators. For this purpose, my intention is to use the data provided by the POLITY III project. I use two variables found in Maoz and Russett (1993). The first one is monocratism (**MONO**), which is a five-point ordinal scale representing institutional independence of the chief executive. The second, centralization (**CENT**), is a three-point ordinal scale which distinguishes between unitary and federal political system. These two measures are summed up over their categories to create an

overall scale of institutional constraint ranging from 2 (a system lacking any form of constraint) and 8 (a highly constrained system). To represent the institutional constraint dimension, I created a dummy variable (**INSCONST**), which takes the value of 0 when the sum of **CENT** and **MONO** varies from 2 to 4, to represent a low constraint political system. For added values ranging from 5 to 8, it is coded as an 1 to represent high constraint political system. The cases involving the EC are coded as a 1, because they are highly decentralized and the institutional decision-making process is highly diffused. The variable should have a negative value; the more constrained is the target, the less success should the American negotiators have, and the hypothesis is read as:

H5: The higher the level of institutional constraint for the targeted country, the less bargaining leverage for the American negotiators in their use of Section (Super) 301.

#### ii- *Political Necessity*

This variable measures "how badly" an agreement is needed by the negotiating parties. Given that the United States is always the "demander" in the cases that I study, I propose to focus of the political needs on the American negotiators. One possible indication of political necessity is the use or an implicit threat of retaliation by the United States (**RETAL**). Retaliation is a tool made available to the United States Trade Representative (USTR) in cases involving the use of Section (Super) 301, among others. The logic would indicate that it is only when American negotiators are in a dire need for an agreement that they use such a policy instrument. Thus, revealing their "weak type". Indeed, the use of a retaliation indicates that all else failed. A threat or use of retaliation

is coded as a "1" and as a "0" otherwise. Given this variable brings to the fore a certain weakness demonstrated by the American negotiators, we must anticipate that its sign will be negative in the statistical analysis.

- H6** The use of a threat of retaliation or a direct retaliation in cases involving the use of Section (Super) 301 is an indication of bargaining weakness on their part.

The "economic political necessity" variable is appropriate in this case. I join Bayard and Elliot (1994), by assuming that the greater the dollar value of the contested trade relationship between the United States and the target, the more difficult it would be for the American negotiators to reach an agreement, and in turn, their objectives. Thus "small cases" are more easily resolved to the satisfaction of the U.S. negotiators than "big cases." In order to measure the "severity" of a case, Bayard and Elliot (1994: 355-69) used the actual value of U.S. exports (in terms of the good or service targeted) to the target after the case was concluded. I intend to utilize a similar measure. I created a dummy variable (**DVCGOOD**) for "big cases" which take the value of 1 when the amount of contested trade is 100 million dollars or larger, and 0 for "small cases" when the value of contested trade is less than 100 million dollars. This variable should have a negative sign and the hypothesis is the ensuing:

- H7** The higher the value of the contested goods or services leading the use of Section (Super) 301, the less bargaining success for the American negotiators.

Another variable, a misery index (Keech, 1995:52-53) can be used to evaluate the economic political necessity for the American negotiators (**MISERY**). The misery index is calculated by adding the seasonally adjusted unemployment rate of the United States to its inflation rate<sup>77</sup>. The assumption is that American negotiators are in a position of weakness when the misery index is high. In this case, the U.S. negotiators are in a dire need of an agreement and they may be induced to make more concessions because they see an agreement as a panacea for bad economic performance. Therefore the hypothesis should be read as:

- H8     A higher misery rate (Inflation + Unemployment) in the United States leads to less bargaining success for the American negotiators when they use Section (Super) 301.

The sign of MISERY should be negative in the statistical analysis.

### iii- *Societal Support*

This variable can only be measured adequately by an in-depth analysis of each case. However, I will again turn to Bayard and Elliot (1994) in order to find an adequate "proxy" that can be used to measure the effect of this dimension on the level

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<sup>77</sup> As a baseline to code the seasonally adjusted unemployment rate and inflation rate I used the date an agreement was signed between the United States and the target. When it occurred between January and April, I used the rates of the previous year. When it occurred between May and August, I calculated the mean values of the rates for the previous and the current year. For the last four months, I used the rates of the current year. The source for the unemployment rate and inflation rate is U.S. Government, 1994, *Economic Report of the President*, Washington, D.C., US Government Printing Office, table B-40, p. 314 and p. 341 respectively.

of success for the American negotiators. They make the hypothesis that the greater the amount of U.S. trade deficit vis-à-vis the target (which is a negative value), the greater support it will get from the domestic society. In turn, the greater the domestic support, the greater the bargaining leverage of the U.S. negotiators. We should, therefore, expect a negative sign (i.e. a positive balance of trade would lower the bargaining leverage for the American negotiators) for this variable (**TBAL**<sup>78</sup>) and we should read the hypothesis as:

- H9    The greater the trade balance deficit for the United States with the targeted country (or group of countries), the more bargaining success for the American negotiators when they use Section (Super) 301.

A common measure of societal support in the United States, used to test various hypotheses in the domains of domestic politics and foreign policy, is the presidential approval rating. With data provided by Gallup, this variable (**APPROV**) is included in the statistical analysis. It is, however, with suspicion that I resort to this measure. We can speculate that a high level presidential approval would bolster presidential confidence for "big" foreign policy decisions, such as a decision to go to war or signing an encompassing trade agreement. These initiatives receive wide media coverage and are consequently well-known by the public. Cases involving the targeting of a foreign country via the Section (Super) policy instrument, does not constitute a "big" case and, in fact, rarely receive important media coverage. With this caveat in mind, presidential

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<sup>78</sup> The source for this variable is International Monetary Fund, *Directions of Trade...* (various years).



approval is incorporated in the statistical analysis that follows in the next chapter, and we may hypothesize that it will post a positive sign. The presidential approval hypothesis can be read as follows:

H10 The higher the American presidential approval, the more bargaining success for the United States' negotiators when the use Section (Super) 301.

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This chapter has presented the framework for an empirical analysis of the level of success by American negotiators when resorting the Section (Super) 301. More specifically, with the description of ten hypotheses, it indicates which variables will be included in the statistical analysis of the next chapter. Each variable represents a dimension of the structure of negotiation and a parameter of formal model presented in the previous chapters. In other words, these variables are an indication of the bargaining position of Washington's delegates and should provide an explanation for their negotiation success when they resort to Section (Super) 301 as a foreign policy tool.

## **CHAPTER 5**

### **Empirical Test: Section (Super) 301**

#### **Introduction**

The data set<sup>79</sup> used in this analysis is partially comprised of a set of variables taken from Bayard and Elliot's (1994) study of U.S. trade policy of reciprocity and retaliation. It also includes a certain number of variables not included in Bayard and Elliot's study. A detailed description of the sample was presented in the previous chapter. This sample set was selected for several reasons. First, even though Bayard and Elliot were testing different propositions, their results can be compared with the results I get in this dissertation. Second, it keeps one of the actors, the United States, constant for all the cases. This facilitates the analysis of different propositions. Indeed, the data set indicates that the level of success achieved by the American negotiators varies from case to case and is not related to a simple correlation with the economic size of the target. In other words, it shows that in some instances, the U.S. was successful in its negotiations with a target, while in some other instances they were unsuccessful when negotiating with the same target. Hence, it is possible to test the hypotheses stated in the previous chapter and it is possible to refute the model of this dissertation. Third, it is possible to rely on Bayard and Elliot's assessment of the level of success for

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<sup>79</sup> The entire data set is presented in Appendix D.

American negotiators. This has the advantage of bringing about some consistency between the results achieved by their analysis and the results achieved in this chapter.

This chapter first examines some alternative propositions regarding the explanations of outcomes of trade negotiations. It concentrates particularly on power, interdependence and institutional constraint explanations. It is followed by an empirical test of the theoretical and formal models proposed in the previous chapters.

## **I. Power and Dependence**

### **A) Structural Power**

The level of success achieved by the American negotiators with corresponding target countries is demonstrated by Table 3. The most obvious finding when observing Table 3 is that a reliance on structural power, especially if defined in terms of military and economic power, is a weak predictor of success in international bilateral trade negotiations. Indeed, if such was the case, we would expect the United States to have much more success than shown by Table 3<sup>80</sup>. It is interesting to notice that a nation, still considered by many as an hegemonic power, achieves success in its international trade negotiations in only 13% of the cases (10 out of 75). Even if we also consider

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<sup>80</sup> Two factors, which we cannot control, affect the level of American bargaining success. On one hand, there exists a certain sample selection bias in Bayard and Elliot's sample, namely that only cases in which actions were taken by the Office of the United States Trade Representative (USTR) are included in the study. Cases that were resolved prior to formal actions, for which we have no documentation, are not included. Consequently, only highly controversial cases are studied. This affects the level of American bargaining success. On the other hand, the USTR office is likely to take on cases that have some chances to be solved through bargaining. All in all, we have two sample selection biases pulling in different directions, and it is difficult to evaluate their individual impact on the American bargaining success when resorting to Section (Super) 301.

"partial successes", this figure is only 47% (35 out of 75). This means that in more than 50% of the cases, the U.S. negotiators were not even able to achieve at least a partial success. Consequently, given the data at hand, we have a first hint that power may not be fungible, which seems to signify that structural power is a poor predictor of international trade negotiations.

Table 3 also demonstrates certain trends indicating the United States does not automatically have more success when confronted with "small" powers rather than "large" powers. It is possible to reorganize Table 3, to have a second look at this claim on the fungibility of power. Table 4 indicates the mean score of the level of success achieved by Washington vis-à-vis each target. The targets are ranked from the highest to the lowest score. The second column shows the number of occurrence of the utilization of Section (Super) 301 for each target.

TABLE 3

Level of Success for the American Negotiators When Using Section (Super) 301

| Level of Success <sup>a</sup> |                     |                     |             |
|-------------------------------|---------------------|---------------------|-------------|
| Failure (0)                   | Nominal Success (1) | Partial Success (2) | Success (3) |
| Argentina (1)                 | Argentina (2)       | Argentina (2)       | Brazil (1)  |
| Canada (2)                    | Brazil (1)          | Brazil (3)          | Canada (1)  |
| EC (4)                        | Canada (1)          | Canada (1)          | EC (2)      |
| India (3)                     | China (2)           | EC (5)              | Japan (4)   |
| Portugal (1)                  | EC (9)              | India (1)           | Korea (1)   |
| Spain (1)                     | Guatemala (1)       | Japan (5)           | Taiwan (1)  |
|                               | India (1)           | Korea (4)           |             |
|                               | Japan (3)           | Taiwan (4)          |             |
|                               | Korea (2)           |                     |             |
|                               | Norway (1)          |                     |             |
|                               | Taiwan (1)          |                     |             |
|                               | Thailand (3)        |                     |             |
|                               | USSR (1)            |                     |             |

<sup>a</sup> The number of occurrences for each case in indicated between parentheses.

TABLE 4

Level of Success for American Negotiators by Targets

| Level of Success |     |       |
|------------------|-----|-------|
| Target           | (N) | Score |
| Japan            | 12  | 2.08  |
| Taiwan           | 6   | 2     |
| Brazil           | 5   | 2     |
| Korea            | 7   | 1.86  |
| EC               | 20  | 1.25  |
| Argentina        | 5   | 1.2   |
| Canada           | 5   | 1.2   |
| China            | 2   | 1     |
| Guatemala        | 1   | 1     |
| Norway           | 1   | 1     |
| Thailand         | 3   | 1     |
| USSR             | 1   | 1     |
| India            | 5   | 0.6   |
| Portugal         | 1   | 0     |
| Spain            | 1   | 0     |
| All targets      | 75  | 1.44  |

When we examine Table 4, we first notice that there is no direct correlation between a target's structural power and the level of bargaining success achieved by the United States<sup>81</sup>. Indeed, American negotiators achieve their highest level of bargaining success when dealing with Japan (2.08), better than with many "smaller" powers such as Guatemala, Norway, Argentina. They also receive a generally good level of success with the EC and Canada, ranked respectively fifth and seventh out of fifteen targets. In fact, they obtain more success when confronted with another member of the G7 than when confronted with a non-member: 1.51 versus 1.37. Even if this may not reveal a significant difference, it certainly indicates that American negotiators do not receive a bargaining advantage from their encounters with "smaller" powers.

Table 4 reveals two other tendencies: a good degree of success in their confrontations with targets from Asia, and better success versus targets encountered on numerous occasions. First, the regional concentration: three of the four targets (Japan, Taiwan, and Korea) where American negotiators obtain the highest level of success are from the Pacific region. Is this just a coincidence or is there a certain "regionalisation" of their level of success? Could it be that the United States have better trade representatives in this region of the planet? Or could there be some other underlying factors explaining this phenomenon? I shall pay special attention to this phenomenon when interpreting the results of the statistical analysis of the bargaining model that follows. Second, we notice a much higher level of success with targets that the United

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<sup>81</sup> For simplicity, I use a target Gross National Product (GNP) as a measure of power (Organski and Kugler 1980). These are indicated in Table 4. Even if we were to use different measures of power, we must perforce recognize that the results would be very similar.

States met at least five times. Indeed, with the exception of China, all targets which the United States met five time or more are at the top of Table 4. This could be an indication that a certain familiarity among trade representatives of different countries breeds success. Still, we must be careful with this kind of interpretation. The overall mean score (1.44) indicating U.S. level of success is still higher than the score it obtains with the EC (1.25), Argentina (1.2), and Canada (1.2), despite a combined thirty bargaining occurrence with these targets.

These descriptive statistics not only disclose the fact that structural power is a poor indicator of bargaining success, but also serve as an interesting guide for the interpretation of the ordered multinomial logit analysis that ensues.

#### B) Economic Power.

A second level of analysis brings us to consider only economic power. One measure of economic power that is suited for this analysis is the Gross National Product (GNP). Table 5 indicates the GNP of each target country<sup>82</sup>. If a simple reliance on economic power was enough to suggest bargaining success in international bilateral trade negotiations, we would expect American negotiators to obtain a higher level of success with "small economic powers", rather than "large economic power." If we consider Tables 3, 4, and 5 we notice that cases of failures involve some of the countries with very small GNP's or with low score of American bargaining success. In fact, in three

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<sup>82</sup> When several negotiations occurred between the United States and a target, I considered the target's GNP for the last negotiation between the two parties. A similar method is used for the data in Table 5.



cases (Argentina, Portugal and Spain) the GNP of the target is less than 200 billions<sup>83</sup>. At the other end of the scale, we observe that 70% (7 out of 10) of the cases of "successes" occurred with targets ranked in the top tier of the GNP classification (Canada, EC, Japan). When we also take into account cases of "nominal successes", the figure is still over 50% (18 out of 35). If we consider the American level of bargaining success as indicated by Table 4, we uncover similar results. When confronted with the "first tier" of targets in terms of their GNP (EC, Japan, USSR, Canada, China), Washington's combined score is 1.31. In comparison, the respective combined scores when confronted with the second or third tiers of targets are 1.29 and .84. Based on these figures, we are forced to admit that a strict reliance on economic power is a weak indicator of the level of success that negotiators may have in a bilateral trade and investment negotiation<sup>84</sup>.

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<sup>83</sup> Notice also cases of "nominal success" with Argentina (2 cases), Guatemala, and Norway; which are all countries with relatively small GNPs.

<sup>84</sup> In order to appraise the impact of economic power on the United States level of bargaining power, I also conducted a bivariate ordered multinomial analysis with the targets' GNP as the independent variable. The result indicates a level of significance better than .1 ( $P < |z| = .089$ ) with a positive sign for the regressor. We must use such result with extreme caution, given the underspecification of the model, but the positive sign of the regressor reveals that the United States' negotiators obtain a higher degree of success when meeting the representatives of a target with a **large** GNP. This could denote the fact American negotiators avoid "playing the bully" with small economic powers.

TABLE 5

Economic Power Hypothesis: Target's GNP<sup>a</sup>

| Target's GNP (in billions) |         |           |        |
|----------------------------|---------|-----------|--------|
| Target                     | GNP     | Target    | GNP    |
| EC                         | 6453.83 | Spain     | 172.25 |
| Japan                      | 3108.96 | Korea     | 168.79 |
| USSR                       | 1220.63 | Thailand  | 102.55 |
| Canada                     | 564.83  | Norway    | 93.12  |
| China                      | 526.99  | Argentina | 74.82  |
| Brazil                     | 382.83  | Portugal  | 20.87  |
| India                      | 287.43  | Guatemala | 3.76   |
| Taiwan                     | 210.72  |           |        |

<sup>a</sup> Sources: Carr (1982); CIA (1979/80); Republic of China, *Taiwan Statistical...* and *Monthly Bulletin...*; World Bank, *World Tables*.

### C) Dependence

The results of the economic power equation suggests that an answer may be found in the economic dependence of the target on the United States. Even though the EC, Japan, USSR, Canada, and China are considered in the first tier in terms of economic power as calculated by their GNP, it could be the case that they are also the most dependent on the United States for their foreign exchanges. Consequently, we could believe that countries that have the largest amount of exports to the United States are put at risk of endangering their economy in case of trade deterioration with the United States. In a bilateral trade negotiation, this puts the United States in the driver's seat. Hence, we may suppose that the higher the targets' exports to the United States (TEXP) are, the

higher success rate for the American negotiators<sup>85</sup>.

Table 6 shows an ordered ranking of the targets' exports to the United States<sup>86</sup>. We find a large degree of similarity when we compare Table 4 with Table 6. In both tables we find Japan, Taiwan, Brazil, Korea, the EC, and Canada at the top of the scale. The only slight anomaly is Argentina, which is ex-aequo with Canada in sixth place in terms of American bargaining success (Table 4), but only twelfth in regards to its level of exports to the United States. Conversely, Guatemala, Portugal, the USSR, Norway, Spain and India are all at the bottom of the scale in both tables. All this indicates that trade dependence of a target is an important factor for explanation of American bargaining success when Washington resorts to Section (Super) 301<sup>87</sup>.

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<sup>85</sup> I tested this hypothesis with an ordered multinomial logit analysis. The independent variable is the natural log of a target's export to the United States (LTEXP). I used the natural log in order to secure homoscedastic error terms in the estimation of the model. Keeping in mind that the model suffers from underestimation, the result indicates that the regressors have a positive sign and LTEXP is significant at the .05 level ( $P > |Z| = .033$ ). This result reveals that American negotiators achieve a higher degree of success with targets which are highly dependent on the United States for their foreign trade.

<sup>86</sup> When more than one case involve a single target, I used the value for the last occurrence.

<sup>87</sup> For this reason, I retained this variable when testing a second model based on target's compliance. The results are indicated further in this chapter.

TABLE 6

Dependence Hypothesis: Targets' Exports to the United States<sup>a</sup>


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Targets Exports to the United States (In billions)

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| <b>Target</b> | <b>TEXP</b> | <b>Target</b> | <b>TEXP</b> |
|---------------|-------------|---------------|-------------|
| Canada        | 102.318     | India         | 3.228       |
| EC            | 94.64       | Spain         | 2.035       |
| Japan         | 92.538      | Norway        | 2.018       |
| Taiwan        | 23.572      | Argentina     | 1.201       |
| Korea         | 20.84       | USSR          | .587        |
| Brazil        | 7.89        | Portugal      | .42         |
| China         | 7.398       | Guatemala     | .205        |
| Thailand      | 6.686       |               |             |

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<sup>a</sup> Source: See chapter 4, footnote number 11.

However, these results are, in some ways, the flip side of the previous hypothesis. Indeed, it is reasonable to believe that the largest economic powers are also those exporting more of their resources to the United States. In fact, GNPs of target countries (TGNP) show a high level of correlation of .61 with their exports to the United States (TEXP). An alternative way to measure the effect of targets' exports to the United States is to consider their GNPs. That is, we need to measure the share of a target's GNP that is accounted for by its exports to the United States (TXGNP). This measure has shown a very low level of correlation with TEXP (-.05).

TABLE 7

Dependence Hypothesis: Share of GNP Accounted for by Exports to the U.S.

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| TXGNP (in percentage) |        |           |       |
|-----------------------|--------|-----------|-------|
| Target                | TXGNP  | Target    | TXGNP |
| Canada                | 18.061 | Portugal  | 2.012 |
| Korea                 | 12.347 | Argentina | 1.605 |
| Taiwan                | 11.186 | EC        | 1.466 |
| Thailand              | 6.52   | China     | 1.404 |
| Guatemala             | 5.452  | Spain     | 1.181 |
| Japan                 | 2.976  | India     | 1.123 |
| Norway                | 2.167  | USSR      | .048  |
| Brazil                | 2.061  |           |       |

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Table 7 shows a ranking of target countries according to their share of GNP accounted for by their exports to the United States<sup>88</sup>. When comparing Table 3 with Table 7, we obtain mixed results. Three countries, Canada, Korea, and Taiwan, show a very high dependence on the United States, with more than 10% of their GNP accounted for by their exports to the United States. Nevertheless, out of 18 cases involving these targets, the United States obtained a full success in only 3 cases, that is a success rate of 17%. Furthermore, these constitute 30% of all cases of success (3 out of 10), while they also represent 24% of all cases (21 out of 75). The difference is not very large. However, if we also consider cases of "partial success", the test is more conclusive: 12 of 18 cases (67%) involving these countries are classified as a "success" or a "partial success" and they constitute 34% of all cases classified in these categories, which is 10% more than would be expected by the null hypothesis. Thus, the difference gets more significant and this seems to be an indication that there exists a relationship--even though still a weak one--between trade dependence and level of success for US negotiators.

If we also effectuate a cross comparison between Table 4 and 7, we also obtain mixed results. The three countries for which the United States obtains on average at least a partial success (Japan, Taiwan, Brazil) that is, at least a score of 2, are ranked respectively sixth, third, and eighth in regards to their share of GNP accounted for by their exports to the United States. This shows only a mitigated support for the hypothesis that US negotiators obtained a higher level of success when negotiating with

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<sup>88</sup> Once again, I conducted an ordered multinomial analysis. The independent variable, TXGNP is not significant ( $P > |Z| = .12$ ), but sports the hypothesized sign (positive).

countries that were highly dependent on them for their exports.

The results for the economic dependence propositions are somewhat surprising. It appears that the net amount of exports to the United States is more important than the share of GNP accounted for by exports to the United States. What this tells us is that the United States' negotiators seem to achieve more success when confronted with large economic powers, given the high level of correlation between exports to the United States and GNPs of targets.

The answer may not be that simple. We can gain some substantial insights by testing a more fully developed model concentrating on trade interdependence, institutional constraint, political necessity, and domestic support, as suggested in the previous chapters. The next section evaluates such a model.

## **II. Empirical Results of Principal Model**

This section tests the theoretical model of Chapter 2, the formal model and propositions of Chapter 3, and hypotheses of Chapter 4. It starts with some descriptive statistics and a bivariate analysis. It is followed by an ordered multinomial logit analysis. Finally, it includes a study of the individual impacts of the independent variables on the dependent variable.

TABLE 8

Summary of Level of Analysis, Elements of Analysis, Parameters, and Variables

| <b>Level</b>         | <b>Parameters</b>       | <b>Elements</b>                 | <b>Variables</b>                |
|----------------------|-------------------------|---------------------------------|---------------------------------|
| <b>International</b> | <b>Breakdown costs</b>  | <b>Interdependence</b>          | <b>Trade Interdep. (DEP)</b>    |
| " "                  | " "                     | " "                             | <b>Interdep./GNP (DEPGNP)</b>   |
| " "                  | " "                     | <b>Threat credibility</b>       | <b>Type of issue (ISSUE)</b>    |
| <b>Domestic</b>      | <b>Information</b>      | <b>Institutional constraint</b> | <b>U.S. Gvt. Div. (DIVIDED)</b> |
| " "                  | " "                     | " "                             | <b>Tar. Constr. (INSCONST)</b>  |
| " "                  | <b>Costs for delays</b> | <b>Political necessity</b>      | <b>U.S. Retaliation (RETAL)</b> |
| " "                  | " "                     | <b>Economic necessity</b>       | <b>Goods Val. (DVCGOOD)</b>     |
| " "                  | " "                     | " "                             | <b>Misery Index (MISERY)</b>    |
| " "                  | " "                     | <b>Societal support</b>         | <b>Trade Balance (TBAL)</b>     |
| " "                  | " "                     | " "                             | <b>Pres. Approval (APPROV)</b>  |



Table 8 recaps the essence of previous chapters. The level of analysis column refers to the structure of negotiation as represented by Putnam's (1988) two-level of analysis metaphor. The second column is related to the parameters of the Ståhl-Rubinstein formal model. The third column indicates the elements of analysis invoked by the propositions. Finally, the last column shows the variables included in the empirical model. The dependent variable (Success), not indicated in Table 8, is the level of success for the U.S. negotiators. It is a variable with the following four categories: failure, coded as a "0"; nominal success, coded as an "1"; partial success, coded as a "2"; and success, coded as a "3".

#### A) Descriptive Statistics and Bivariate Analysis

Table 9 provides descriptive statistics of each variable used in the analysis that follows. It is important to note that Success, ISSUE, DIVIDED, INSCONST, RETAL, DVCGOOD are dummy variables, such that the significance of their descriptive statistics is less meaningful. The descriptive statistics of the natural log of the targets' exports (LTEXP) are also included because this variable will be included in the compliance model.

TABLE 9

## Descriptive Statistics

N=75

| <b>Variable</b> | <b>Mean</b> | <b>Std. Dev.</b> | <b>Minimum</b> | <b>Maximum</b> |
|-----------------|-------------|------------------|----------------|----------------|
| Success (Ind.)  | 1.44        | .919             | 0              | 3              |
| DEP             | 1.031       | 1.483            | .009           | 4.129          |
| DEPGNP          | .386        | .531             | .003           | 2.308          |
| ISSUE           | .4          | .493             | 0              | 1              |
| DIVIDED         | .333        | .759             | -1             | 1              |
| INSCONST        | .387        | .49              | 0              | 1              |
| RETAL           | .253        | .438             | 0              | 1              |
| DVCGOOD         | .467        | .502             | 0              | 1              |
| MISERY          | 10.836      | 3.872            | 5.57           | 20.5           |
| TBAL            | -7.507      | 15.096           | -52.625        | 11.972         |
| APPROV          | .529        | .109             | .32            | .75            |
| LTEXP           | 2.705       | .179             | -1.585         | 4.628          |

Table 10 represents a bivariate analysis indicating a crosstabulation of mean values taken by the dependent variable (Success) according to different values taken by independent dummy variables<sup>89</sup>. This type of bivariate analysis is highly underspecified, but it provides a good, first estimation of the impact of those dummy variables on the dependent variable. The first column represents the name of each dummy variable. The second indicates a description of their category. The third shows the number of occurrences for each category. Finally, the last column demonstrates the mean value of the dependent variable for each category. The overall mean value for the dependent variable (Success) is 1.44.

A general look at Table 10 reveals the realization that the impact of all dummy variables goes in the hypothesized direction. Indeed, all changes in the mean value taken by the dependent variable are influenced, to a different extent, by the categories of the independent variables. Also, these impacts are all in the same direction indicated by the hypotheses of the previous chapter. Let me provide an explanation of Table 10 by discussing the impact of each independent variable separately.

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<sup>89</sup> This method can be used only with dummy variables. For continuous variable, I will use a graphical representation of their marginal impact on the dependent variable.

TABLE 10

## Bivariate Analysis: Table of Means

Mean Value for Level of Success by American Negotiators

| <b>Independent Variable</b> | <b>Category</b>                         | <b>(N)</b> | <b>Mean</b> |
|-----------------------------|-----------------------------------------|------------|-------------|
| <b>ISSUE</b>                | <b>Quota or Tariff (1)</b>              | <b>30</b>  | <b>1.77</b> |
| <b>" "</b>                  | <b>Otherwise (0)</b>                    | <b>45</b>  | <b>1.22</b> |
| <b>RETAL</b>                | <b>Threat or Use of Retaliation (1)</b> | <b>19</b>  | <b>1</b>    |
| <b>" "</b>                  | <b>No Threat or Use (0)</b>             | <b>56</b>  | <b>1.59</b> |
| <b>DVCGOOD</b>              | <b>100 Million or More (1)</b>          | <b>35</b>  | <b>1.31</b> |
| <b>" "</b>                  | <b>Less Than 100 Million (0)</b>        | <b>40</b>  | <b>1.55</b> |
| <b>INSCONST</b>             | <b>High Constraint (1)</b>              | <b>29</b>  | <b>1.07</b> |
| <b>" "</b>                  | <b>Low Constraint (0)</b>               | <b>46</b>  | <b>1.67</b> |
| <b>DIVIDED</b>              | <b>Divided Government (1)</b>           | <b>38</b>  | <b>1.58</b> |
| <b>" "</b>                  | <b>Divided Congress (0)</b>             | <b>24</b>  | <b>1.29</b> |
| <b>" "</b>                  | <b>Undivided Government (-1)</b>        | <b>13</b>  | <b>1.31</b> |

It was hypothesized in the previous chapter that American negotiators achieve more bargaining success when the issue on the agenda is related to a tariff or a quota. We find a certain level of confirmation while observing Table 10: when the issue being negotiated is a quota or a tariff the mean level of success goes from 1.44 to 1.77. Of all dummy variables, this represents the largest positive impact. Conversely, when the issue is about intellectual property rights or safety measures, their level of success drops to 1.22. These results indicate that the type of issue under discussion influences the bargaining success of American negotiators.

Measures of retaliation or reciprocity are tools made available to the U.S. trade representatives when using Section (Super 301). However, when they decide to threaten or directly use those tools, it may indicate some bargaining weakness on their part. That's what Table 10 reveals. It is especially true for the nineteen cases when they decided to use these policy instruments. In fact, their level of success drops to 1 (nominal success) from 1.44 when using or threatening retaliation. Of all dummy variables, this constitutes, the largest negative impact on the value taken by the dependent variable. The impact is more moderate when they do not resort to retaliation, such that their level of success only goes up to 1.59.

The higher the value of the goods or services being negotiated, the more difficult it is for American negotiators to achieve their objectives. Table 10 shows some support for this affirmation. The changes in their level of bargaining success goes in the speculated direction, even though the impact is not impressive: a drop of .13 when the value of the contested goods are 100 million dollars or more and an increase of .11 when their value is less than that dollar figure.

The level of domestic institutional constraint of a target demonstrates an important negative impact on the US bargaining success. Indeed, when a target is domestically highly constrained for its decision-making process, American negotiators achieve much less bargaining success. Then, their "mean score" plummets to 1.07. However, when they face a target with low domestic institutional constraint, their level of bargaining success increases to 1.67. An important explanation for this phenomenon is the number of instances (20) when they must compose with the EC, a highly constraint target. We have seen, in Table 4, that their overall level of success vis-à-vis the European Union is only 1.25. Still, Table 10 also demonstrates that they are even less successful when confronted to other highly constraint targets<sup>90</sup>.

Domestic institutional constraints do not have the same impact on the bargaining success of American negotiators when the constraints come from their own domestic institutions (DIVIDED). Nevertheless, DIVIDED has a consequential bearing on the independent variable. Table 10 reveals an interesting facet. American negotiators do not receive added bargaining power and success from a divided Congress. In fact, in those circumstances, their level of bargaining success drops to approximately the same level of success they achieve when the government is undivided (1.29 and 1.31 respectively). The positive impact appears to come from a divided government, that is, when the Presidency is controlled by one party, while the other party controls the Congress. Then, the level of bargaining success achieved by Washington increases to 1.58. This engaging outcome has a consequential bearing on the hypothesis that a divided

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<sup>90</sup> In fact, when a highly constrained target is not the EC, the level of bargaining success achieved by American negotiators drops to only .67.

government gains some international bargaining momentum.

All the results of Table 10 should not be interpreted as conclusive. Due to the underspecified nature of the analysis, those results are only exploratory. A multivariate analysis should confirm or negate this "first cut" at the bargaining problem in international trade and investment negotiations.

## B) Multivariate Analysis

### i) *Method*

Because the dependent variable (Success) is measured along an ordinal scale in which the American negotiators level of success is categorized along a continuum going from failure to success, the empirical model takes the form of an ordered multinomial logit. An ordered multinomial logit is a generalization of the binary threshold model. It has great semblance with a probit or a logit model utilized to evaluate binomial dependent variables, except that in this case the dependent variable incorporates information that is scaled and ordered in four categories (Greene, 1993; Maddala, 1993; McKelvey and Zavoina, 1975). The general form of the equation to be estimated is:

$$Y_i = \alpha + XB + \epsilon \quad (1)$$

Where  $Y_i$  is a  $nx1$  vector of observed values for the dependent variable,  $X$  is an  $nxk$  matrix of observed values for the regressors in the empirical model and  $\epsilon$  follows a

logistic distribution, such that the cumulative distribution of  $\epsilon$  is<sup>91</sup>:

$$F(Z_i) = \frac{\exp(Z_i)}{1 + \exp(Z_i)} \quad (2)$$

In the empirical model, the dependent variable (Success) represents a continuum of unobserved variable  $Y_i^*$ . Hence, the relationship between the observed values of  $Y_i$  and the unobserved values of  $Y_i^*$  is:

$$\begin{aligned} y_i &= \text{failure} \quad \text{if } y_i^* \leq 0 \\ &= \text{nominal success} \quad \text{if } 0 < y_i^* \leq \mu_1 \\ &= \text{partial success} \quad \text{if } \mu_1 < y_i^* \leq \mu_2 \\ &= \text{success} \quad \text{if } \mu_2 \leq y_i^* \end{aligned} \quad (3)$$

Underlying probabilities are assessed by a maximum likelihood procedure. The predicted score is defined as  $S_j = x_{1j}\beta_1 + x_{2j}\beta_2 + \dots + x_{kj}\beta_k$  (4). The ordered logit predictions are then the probability that  $S_j + \mu_j$  lies between a pair of cut points  $k_{i-1}$  and  $k_i$ . In the specific case of this empirical analysis, the following probabilities indicate American negotiators' propensity to have a certain degree of success:

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<sup>91</sup> Unless we have a very large sample size, so that there are enough observations at the tails, the logit and the probit results will be very similar. Indeed, since the cumulative distribution used in a probit analysis, and the logit distribution are very close to each other, except at the tails, we are not likely to get different results (Maddala, 1993: 328). Since we have a rather small sample size, both methods could have been used alternatively.



$$Pr [0] = Pr(S_j + \mu_j < k_1) = \frac{1}{(1 + e^{S_j - k_1})} \quad (5)$$

$$Pr [1] = Pr(k_1 < S_j + \mu_j < k_2) = \frac{1}{(1 + e^{S_j - k_2})} - \frac{1}{(1 + e^{S_j - k_1})}$$

$$Pr [2] = Pr(k_2 < S_j + \mu_j < k_3) = \frac{1}{(1 + e^{S_j - k_3})} - \frac{1}{(1 + e^{S_j - k_2})} - \frac{1}{(1 + e^{S_j - k_1})}$$

$$Pr [3] = Pr(k_3 < S_j + \mu_j) = 1 - \frac{1}{(1 + e^{S_j - k_3})} - \frac{1}{(1 + e^{S_j - k_2})} - \frac{3}{(1 + e^{S_j - k_1})}$$

Equation 4 allows us to calculate the predicted score of the dependent variable (Success) for all of the seventy-five cases. Equation 5 helps us unveil the probabilities that, for each case, the American negotiators level of bargaining success is a failure (Pr=0), a nominal success (Pr=1), a partial success (Pr=2), or a success (Pr=3). Generally, for each case, the category that demonstrates the highest probability, also corresponds to the predicted score, but this does not always happen. For the calculation of the "cases correctly predicted (CCP)", I compared the predicted scores (unobserved scores),  $Y_i^*$ , and the coded scores (observed scores),  $Y_i$ . It is, then, only a matter of calculating the percentage of cases that indicate the same predicted and observed score.

Also, by holding all the variables constant at their mean, with the exception of one, in equation 4, it is possible to examine the marginal effect of the variable not held constant when  $s_j$  is included in equation 5. For instance, let's assume that our equation contains only two independent variables, DEP and DEPGNP. To see the marginal impact of the regressor of DEP on the dependent variable, Success, we can enter the minimum and maximum value of DEP in equation 4, while holding DEPGNP constant

at its mean<sup>92</sup>. Next, we need to incorporate the predicted scores ( $S_j$ ) of DEP in equation 5, in order to evaluate its marginal effect on each category of the dependent variable.

In addition to the marginal effects, a graphical method will be used to provide a visual plot of the marginal changes in each regressor with respect to the dependent variable<sup>93</sup>. In such case, not only do we incorporate the minimum and maximum value of one of the regressors in equation 4, while holding other regressors at their mean, but also each of its observed values. Hence, the graphical method isolates the effect of an independent variable on the probability that American negotiators will achieve a certain degree of negotiation success. Bennett Quiñones and Gates (1995: 72, n.27) lucidly indicate the meaning of the marginal effects:

Note that these marginal effects are not equal to the coefficients. Typically coefficients and t-ratios are reported with no discussion of direction and magnitude of the effects of the regressors (see Greene [1990]). The problem with interpreting only the coefficients involves the lack of consideration of the effect of the middle category for the dependent variable. By calculating the marginal effects of each independent variable, it is possible to determine the effects of a change in  $x$  on predicted probabilities for different values of the dependent variable.

For instance, these calculations allow one to determine how an independent variable such as DEP, the trade interdependence between the United States and target countries, affect the negotiation success of American negotiators. It has the added advantage of indicating

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<sup>92</sup> When we have more than two independent variables, all variables, except one, are held at their mean.

<sup>93</sup> This graphical representation will not be used for dummy variables, because they only take two or three different values.

the marginal effect, or importance, of one of the regressors, not only one the minimum (0) and maximum (3) values taken by the independent variable (Success), but also its middle categories (1 and 2). Another advantage of the graphical representation of the marginal effect of the regressors is that each figure reduces the number of dimensions to two: only the independent variable of interest and the predicted probabilities for the dependent variable (Success) will be plotted.

Using the data and the methods described above, it is now possible to examine the propositions and test the hypotheses of the theory and formal model of this thesis.

## ii) *Ordered Multinomial Logit Results*

Estimates of the interdependence model used to evaluate the propositions of Chapter 3 and test the hypotheses of Chapter 4, are located in Table 11. This empirical test is used to determine which factors influence the degree of success for negotiators in an international bilateral trade and investment negotiation. More specifically, Table 11 is an estimation, using ordered multinomial logit, of the level of success of American negotiators when resorting to threat of retaliation.

TABLE 11

Interdependence Model: Empirical Estimates<sup>94</sup>

Number of obs.: 75  
 chi<sup>2</sup>(10): 43<sup>95</sup>  
 Prob > chi<sup>2</sup>: .0000  
 Pseudo R<sup>2</sup>: .2212  
 Log Likelihood: -75.692126  
 CCP: 55%

| Success  | Coef.     | Std. err. | z      | P >  z |
|----------|-----------|-----------|--------|--------|
| DEP      | .6255     | .34       | 1.84   | 0.066  |
| DEPGNP   | -.219     | .746      | -0.294 | 0.769  |
| ISSUE    | 1.3453    | .5137     | 2.619  | 0.009  |
| DIVIDED  | .3124     | .3758     | 0.831  | 0.406  |
| INSCONST | -2.1381   | .786      | -2.72  | 0.007  |
| RETAL    | -1.7548   | .5672     | -3.094 | 0.002  |
| DVCGOOD  | -1.04     | .5047     | -2.06  | 0.039  |
| MISERY   | -.1144    | .0767     | -1.492 | 0.136  |
| TBAL     | -.0502    | .0199     | -2.522 | 0.012  |
| APPROV   | .1733     | 2.6017    | 0.067  | 0.947  |
| _cut1    | -3.872135 | 2.027712  |        |        |
| _cut2    | -1.167997 | 1.972112  |        |        |
| _cut3    | 1.399905  | 1.985419  |        |        |

<sup>94</sup> The reader will notice that I used a z-score, instead of a Student-t statistics. The reason is that the statistical package used, STATA, gives, by default, only one of the two statistics, depending on the sample size. Thus, it appears that a sample size of 75 justifies the use of the z-score. To double check the correspondence, I asked Scott Gates to run the same analysis with SST. SST reported Student-t statistics, and the results were virtually the same as the results obtained with STATA.

<sup>95</sup> Chi<sup>2</sup>(10) is tantamount to -2LLRchi<sup>2</sup>

A general observation of the model indicates that some of the variables perform well (DEP, ISSUE, INSCONST, DVCGOOD, RETAL, TBAL)<sup>96</sup>; another uncovers nearly significant results (MISERY); while others indicate insignificant results (DIVIDED, DEPGNP, APPROV). With the exception of DEP, all of the estimated coefficients have the hypothesized sign. On average, my model's bargaining success predictions are correct in 55% of the cases<sup>97</sup>. This is a noteworthy improvement in predictive success over the naive alternative model (null hypothesis) that predicts the most frequent category continually. Note that the overall measure of fit (i.e., -2LLR) is statistically significant at the .0000 level. There is, therefore, a meaningful support for my general claim that domestic and international factors account for the level of success of international negotiators.

An analysis of the significance of different independent variables in a logit analysis may not expose all the relevance of a specific model. Table 12 provides the marginal impacts of independent variables on the level of bargaining success accomplished by American negotiators. The first row indicates the probabilities taken by different categories of the dependent variable when all independent variables have been kept at their mean. The table can be read in the following way: when all independent variables have been held at their mean, the probability that American negotiators' level of success being coded as a failure is .028, .273 for a nominal success, .548 for a partial success, and .151 for a full success. The following rows indicate the

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<sup>96</sup> Five of these are significant, in terms of a one-tailed test, at the .05 level.

<sup>97</sup> The CCP for the null hypothesis is 37%. Appendix E indicates how the CCP were obtained.

impact of only one independent variable when it takes its minimum and maximum value. The values between parentheses indicate the marginal variations from the base values (i.e. when all variables are held at their means). The calculations are based on equations (4) and (5). See also further explanations in appendix E. What we expect to see is that a variable that has a positive effect (i.e. that sports a positive sign for the regressor) on the level of success for American negotiators will increase the probability of success (or partial success) when it takes its maximum value. Hence, the marginal effect of the variable should be positive when  $Pr=2$  and  $Pr=3$ . The reverse should also be true: the marginal effect on  $Pr=0$  and  $Pr=1$  should be negative. When the same variable takes its minimum value, we should expect a reverse trend: its marginal effect is negative on  $Pr=2$  and  $Pr=3$ , and positive on  $Pr=0$  and  $Pr=1$ . For a variable that sports a negative sign, that is, a variable which, when it increases, decreases the chance of success for American negotiators, should have the exact opposite effect: when at its maximum value, the marginal effects on  $Pr=0$  and  $Pr=1$  should be positive, and its marginal effect on  $Pr=2$  and  $Pr=3$  should be negative; while when at its minimum value, the marginal effect on  $Pr=0$  and  $Pr=1$  should be negative, and its marginal effect on  $Pr=2$  and  $Pr=3$  should be positive.

TABLE 12

Interdependence Model: Marginal Impacts of the Regressors

| Variable        | Pr (0)       | Pr (1)       | Pr (2)       | Pr (3)       |
|-----------------|--------------|--------------|--------------|--------------|
| <b>All</b>      | <b>.028</b>  | <b>.273</b>  | <b>.548</b>  | <b>.151</b>  |
| DEP (Min.)      | .052 (.034)  | .398 (.125)  | .465 (-.083) | .086 (-.065) |
| DEP (Max.)      | .004 (-.024) | .054 (-.219) | .389 (-.159) | .553 (.402)  |
| DEPGNP (Min.)   | .026 (-.002) | .258 (-.015) | .554 (.006)  | .162 (.011)  |
| DEPGNP (Max.)   | .042 (.014)  | .354 (.081)  | .499 (-.049) | .105 (-.046) |
| ISSUE (Min.)    | .047 (.019)  | .378 (.105)  | .481 (-.067) | .094 (-.057) |
| ISSUE (Max.)    | .013 (-.015) | .149 (-.124) | .554 (.006)  | .285 (.134)  |
| DIVIDED (Min.)  | .042 (-.014) | .353 (.08)   | .5 (-.048)   | .105 (-.046) |
| DIVIDED (Max.)  | .023 (-.005) | .236 (-.037) | .561 (.013)  | .18 (.029)   |
| INSCONST (Min.) | .012 (-.016) | .146 (-.127) | .552 (.004)  | .289 (.138)  |
| INSCONST (Max.) | .097 (.069)  | .518 (.245)  | .339 (-.209) | .046 (-.105) |
| RETAL (Min.)    | .018 (-.01)  | .198 (-.075) | .566 (.018)  | .217 (.066)  |
| RETAL (Max.)    | .097 (.069)  | .518 (.245)  | .339 (-.209) | .046 (-.105) |
| DVCGOOD (Min.)  | .017 (-.011) | .192 (-.081) | .566 (.018)  | .224 (.073)  |
| DVCGOOD (Max.)  | .048 (.02)   | .381 (.108)  | .479 (-.069) | .093 (-.058) |
| MISERY (Min.)   | .016 (-.012) | .175 (-.098) | .564 (.016)  | .245 (.094)  |
| MISERY (Max.)   | .08 (.052)   | .485 (.212)  | .379 (-.169) | .056 (-.095) |
| TBAL (Min.)     | .003 (-.025) | .04 (-.233)  | .325 (-.233) | .632 (.481)  |
| TBAL (Max.)     | .071 (.043)  | .463 (.19)   | .403 (-.145) | .063 (-.088) |
| APPROV (Min.)   | .029 (.001)  | .28 (.007)   | .545 (-.003) | .147 (-.004) |
| APPROV (Max.)   | .027 (-.001) | .266 (-.007) | .551 (.003)  | .156 (.005)  |

<sup>a</sup> Values between parentheses are marginal differences from the mean.

An evaluation of the overall importance of the variables, in terms of their impact on the level of success of American negotiators, suggests that those variables which were the most significant are also those having the most profound impact on the dependent variable. In general, those variables affect especially the propensity for American negotiators to get an outcome leading to a nominal or a partial success. This is not surprising, given that the majority of outcomes fall into those categories.

The general assessment of the model can be supplemented by a consideration of each of the individual coefficients and marginal impacts of the variables. I will first comment briefly on the variables leading to insignificant results. Then, I will address the variables indicating "nearly-significant" or significant results.

In the first section of this chapter, an analysis of economic dependence of target countries on the United States, tested in terms of their level of exports to the United States (TEXP), turned out being highly significant: Americans had more success with countries with large exports to the United States, rather than with countries exporting less to America. It could be expected that the flip side is also valid: the United States will have less success with countries where they ship large amounts of goods (USEXP). Such is not the case: an ordered logit analysis on the variable USEXP indicates that the regressors sports a positive sign, i.e., the United States obtained more success with countries where they export a large amount of goods, and shows no significance ( $P > |z| = 0.695$ ). What may at first be surprising, has a logical explanation. It is very likely that the countries that export a great amount of goods to the United States are the same countries that import many American goods. In fact, the level of correlation between USEXP and TEXP is a whopping .8933. Thus, a better consideration of



economic power may be some measure of trade interdependence or balance of trade<sup>98</sup>.

To take into account some effects of trade interdependence, three variables were created: TSHOUT, target's share of United States trade output (US's dependence); USHOUT, United States' share of target's trade output (target's dependence); and DEP, the ratio of TSHOUT over USHOUT. Hence, the variable should post a negative sign, such that a higher ratio is related to less bargaining leverage for the US negotiators. The results are surprising: the variable has a positive coefficient and is significant at the .1 level ( $P > |z| = 0.066$ ). This means that Americans seem to have more bargaining success when a trade relationship with another country is to their disadvantage.

A possible explanation could be found in the level of resolve shown by the American negotiators. In order to compensate for this asymmetry of trade dependence, they might compensate by becoming more adamant in their demands. Very often, adopting a tough stance leads to a successful outcome. When we analyze Table 12 we find a strong support for this assertion. A first glance at the impact of the variable clearly indicates that it has the most profound bearing on the level of bargaining success for American negotiators **when it takes its maximum value**. The maximum impact, when the variable takes its minimum value, is on the propensity of marginal success (from .273 to .398), which is surpassed by the changes in the probability of nominal success (from .273 to .054), partial success (from .548 to .389), and full success (from .151 to .553) when the variable is at its maximum. This last figure is especially interesting. It demonstrates that when Washington negotiates with a target which has a definitive edge in terms of trade asymmetry, they might compensate by using a very

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<sup>98</sup> The balance of trade variable is discussed below.

tough stance, this leads to a very significantly increase in their level of full success. This augmentation of .402 in the probability of success is, in fact, the most profound impact on the dependent variable. Figure 13, which plots the marginal impact of the variable on the degree of bargaining success, is also conclusive. It shows a rapidly increasing slope for the curve representing the predicted probability of full success when DEP becomes positive. This supports the claim that high trade dependence bolsters US negotiators' bargaining toughness, which, in turns, accentuates their probability of reaching full negotiating success.

However, this "all or nothing" strategy has its drawbacks. As discussed in chapter 2, by being too "tough" in any bargaining episode, a negotiator increases the risk of a stalemate. Hence, his demands fall outside of other negotiators' win-sets. In the specific episodes of Section (Super) 301 utilization, American negotiators offered to a target one "last chance" to reach a negotiated settlement. However, if they appear to be too unyielding, it might be better for a target to retire from the negotiation table instead of acquiescing to Washington's requirements. In those instances, the resulting outcome is coded as a "failure" in the empirical analysis. Table 12 discloses some support for this phenomenon. While it is not the case that the probability of failure increases<sup>99</sup> when DEP is at its maximum value, the respective probabilities of nominal success and partial success indicate a much sharper drop<sup>100</sup>. Nevertheless, until we have an adequate empirical measure of negotiators' resolve, we can only speculate about the connection between trade dependence and resolve.

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<sup>99</sup> In fact, the probability goes from .028 to .004.

<sup>100</sup> This can also be clearly seen by consulting Figure 13.

When testing for the effect of economic dependence of the target on the United States in the first section of this chapter, I indicated that when a target had a large share of its GNP accounted for by its exports to the United States (TXGNP), it could be an indication of some source of bargaining power for American negotiators. The variable DEPGNP also considers the trade dependence of the United States towards the target nation by considering its share of GNP associated with its exports to the target country (USXGNP). DEPGNP represents the ratio of USXGNP over TXGNP, such that a smaller value corresponds to a larger bargaining leverage for the US negotiators. Hence, the variable should post a negative sign. Indeed, the variable has a negative sign, but it shows almost no significance ( $P > |z| = 0.769$ ).

Table 12 unveils similar results. The marginal impact of the variable is on the hypothesized direction (i.e., the probability of success increases when the variable is at its minimum value, while the probability of failure increases when it is at its maximum value), but is rather weak. Still, the variable has a moderate impact on the probability for American negotiators to get only some nominal success in their negotiations. Indeed, when DEPGNP takes on its minimum value, it causes an increase in the predicted probability of nominal success from .273 to .354. Figure 14 displays those findings: 1) the greatest slope corresponds to changes in the predicted probability of nominal success when the variable has small values; 2) in general the graphic has almost constant slopes, which is an indication of the low impact of DEPGNP on the level of bargaining success for American negotiators.

Substantially, this moderate impact on the predicted probability of nominal success indicates, *ceteris paribus*, that American negotiators may often be able to reach an

agreement with targets on which they rely more for their foreign exchanges (rather than the inverse), as controlled by GNP, but they are generally unable to get the target to ratify the agreement to their satisfaction. Given this assertion, one should not be surprised to find out that the United States exhibits this type of trade dependence mainly with the European Union<sup>101</sup>. As suggested in previous chapters, this raises the specter of involuntary defection. European negotiators may sign an agreement in good faith, but are unable to get an approval or a consensus from their individual members.

Given the results obtained with the variables DEP and DEPGNP, it is not possible to confirm the two hypotheses related to trade interdependence. It could be the case that a dependence of the target country on the United States is a better indicator of bargaining strength than a measure of trade interdependence. This hypothesis will be tested further.

The variable DIVIDED, an indication of division within the United States government, behaves erratically. The hypothesis was that when American governmental branches are widely divided, it constitutes a source of bargaining power, such that the sign of the regressors should be positive. This means that American negotiators, acting in the name of the president, can use the "good cop, bad cop" approach by arguing that an agreement looks fine to them, but has no chance to pass Congress. A *caveat* is in order here. This hypothesis may not be well-suited for a test on the use of Section (Super) 301. When a decision is taken to initiate retaliation on a target, even in a "Divided House", there already exists some sort of wide agreement on the course of actions to be taken, and the strategy of stressing internal division may not work too well.

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<sup>101</sup> Twelve out of fourteen cases in which dependence asymmetry was in favor of a target involved the EC. The other two cases implicated Japan and the USSR.

The strategy of using internal political division in the United States may work better for well-publicized trade agreements or security issues.

At first glance, the results indicate the poor showing of DIVIDED: even though its sign goes in the right direction (positive), it shows no significance ( $P > |z| = .406$ ). Nevertheless, we should not conclude that a divided government is a source of weakness, instead of power. It only demonstrates that the hypothesis may have a better chance to be confirmed with cases involving a mutual desire for freer trade, instead of a threat of retaliation.

Still, this variable (DIVIDED) shows some encouraging signs. We have seen in the bivariate analysis that a divided government, when the Presidency and Congress are controlled by different parties, has a salient impact on the bargaining strength of American negotiators. On the basis of this preliminary result, the variable has been recoded. First, the cases when at least one of the congressional institutions was controlled by the same party as the presidency were regrouped. This new category (coded as "0") corresponds to the categories "-1" and "0" of DIVIDED. Instances of divided government were coded as a "1". Second, the same model indicated in Table 11 has been tested, but with the variable DIVIDED being recoded. The results are interesting and have the same directional trend as the bivariate analysis. While other independent variables remain unaffected, the recoded variable displays some encouraging evidences. Even though it is still not significant ( $P > |Z| = .138$ ), it displays a clear improvement from its previous level ( $P > |Z| = .406$ ). Thus, a more intensive look at this variable reveals that internal division in Congress has no bearing on bargaining strength of American negotiators, but that a division between the Presidency and

Congress is an added advantage for Washington when implementing Section (Super) 301. This would suggest that for other factors remaining unchanged, better bargaining outcomes obtained by Washington during the second Reagan administration and Bush's term in office.

Presidential approval has been shown to have a significant effect on the propensity of U.S. presidential use of force abroad (Ostrom and Job, 1986: 555). According to the bargaining model of this dissertation, the variable does not have any significant impact on the level of negotiation success for American negotiators when resorting to Section (Super) 301<sup>102</sup>. Indeed, we find little empirical support for stressing the importance of presidential approval for cases of international economic negotiations. Even though the sign of the regressors correspond to the hypothesized impact of the variable, it shows relatively no significance ( $P > |z| = .947$ ). Furthermore, Table 12 and Figure 15 display very compelling evidence. Table 12 convincingly shows that presidential approval has virtually no impact on the predicted probabilities of any type of bargaining success for American negotiators, as supported by the straight lines inside of Figure 15. It does not matter if presidential approval is high or not; the degree of negotiation success remains unaffected.

The dummy variable ISSUE was coded in such a way that it would take the value of 1 if the trade dispute was related to a quota or a tariff, and 0 otherwise. Following Bayard and Elliot's (1993) argument, it was indicated that these types of issues were easier to resolve to the advantage of American negotiators, while issues of intellectual

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<sup>102</sup> Dummy variables were developed to represent presidential approval to allow for evaluation of some threshold effect. None of these have shown significant results.

property and standards (coded as 0) are much harder to solve. Hence, the sign of the regressor is expected to take on a positive value. Table 10, containing a bivariate analysis of the impact of independent variables on the level of American bargaining success, has shown that this variable has a salient bearing on the dependent variable. It is also exactly what Table 11 indicates: not only is the sign positive, but it is also very highly significant ( $P > |z| = .009$ ). Table 12 also demonstrates the importance of the variable in the model. It shows that when ISSUE is at its maximum value, the predicted probability of success for the American negotiators (Pr [2] and Pr [3]) increases, thus indicating a positive relationship between ISSUE and Success. The inverse is also true, when ISSUE is held at its minimum value, the predicted probability of American negotiating success declines. The impact is especially strong on the probability of nominal success (-.124) and probability of success (.134) when the variable takes on its maximum value; as well as the probability of nominal success (.105) when the variable takes on its minimum value. Therefore, it can be concluded that the type of issue involved in the use of Section (Super) 301 has a great impact on the propensity of American negotiators to reach their goals. All these results confirm the hypothesis that issues for which direct retaliation and reciprocity is possible, such as tariffs or quota, are much easier to resolve to U.S. satisfaction than more complicated issues such as intellectual properties or health and security standards. In the latter instances, it is much more difficult for the USTR to prove that injury has been made against a particular U.S. industry. These results also confirm Bayard and Elliot's (1993) earlier findings on the subject.

The dummy variable INSCONST represents the level of institutional constraint

in the target countries. Countries with higher level of institutional constraint were coded as an 1, while countries facing less institutional constraint were coded as a 0. Following the logic developed in previous chapters, a high level of domestic institutional constraint is seen as a bargaining advantage in international negotiations. In this empirical test, this factor gives an advantage to countries facing U.S. retaliation and reciprocity. Consequently, the coefficient of the variable is expected to bear a negative sign, such that American negotiators have less chance of achieving their objectives when confronted with a target country facing a high level of domestic institutional constraint. The ordered multinomial logit analysis, as shown by Table 11 confirms the hypothesis: the sign of the coefficient is negative and the variable is highly significant ( $P > |z| = .007$ ). This is in accordance with the bivariate analysis of the impact of the variable on the changes from the mean value of the dependent variable (See Table 10).

The results of Table 12, indicating the marginal impacts of the regressors, go in the same direction. They reveal that when INSCONST is at its minimum value, the predicted probability of success for American negotiators,  $Pr(3)$ , increases, thus indicating a negative relationship between INSCONST and Success. The inverse is also true, when INSCONST is held at its maximum value, the predicted probability of American negotiating success declines. Its influence is especially strong on the probability of nominal success (-.127) and of success (.138) when the variable takes on its minimum value; as well as the probability of nominal success (.245), partial success (-.209), and success (-.105) when the variable takes on its maximum value. Therefore, it can be concluded that the targets' level of institutional constraint has an important negative effect on the propensity of American negotiators to reach their goals when they



decide to use Section (Super) 301.

The aforementioned results depict a situation in which the largest impact of the variable is on the predicted probability of nominal success when a target is highly institutionally constrained. Going back to the theoretical section of this dissertation, we are reminded that a highly constrained target may be unable to deliver on a promise made when an agreement is signed (involuntary defection). Henceforth, it is not a shocking revelation to learn that, out of twenty-nine cases in which a target is highly constrained, twenty-two involve the EC. Given its complex ratification procedure, we understandably see why it has a noticeable impact on the probability for American negotiators to reach only some nominal success. However, we will see below that there are other factors explaining why the negotiating success of Washington is lower than their overall success<sup>103</sup>. The variable seems to have a more projecting impression when the United States is confronted with other highly constrained targets. Generally, other variables favor Washington when they are facing Argentina, Brazil, Spain and India, all highly constrained targets. For instance, all those targets show some great trade dependence towards the United States. Still, the US scores representing its level of success are only 1.2 versus Argentina, 0.6 versus India, and 0 versus Spain. It is only versus Brazil that US negotiators manage to get a better fortune than their overall success, with a score of 2.0. Consequently, it is safe to assert that the level of domestic institutional constraint is the main factor explaining why Argentina, India, and Spain were able to deflect Washington's pressure when confronted to Section (Super) 301.

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<sup>103</sup> The reader should be reminded that US overall success score is 1.44, while its success versus the EC is only 1.25.

Section (Super) 301 is a tool made available to the USTR mandating him to negotiate a settlement with a target before initiating sanctions. Hence, if the USTR threatens sanctions or use of sanctions, it is a clear indication that bargaining attempts have failed. In this respect, we have to expect that when no threat or use of sanctions are implemented, it will only have some minor impact on bargaining success. Conversely, if sanctions are set in motion, it symbolizes that US negotiators have failed in their attempt to sway a target towards their demands through negotiations. For these reasons, it is hypothesized that the threat of or use of sanctions by the United States is an inept attempt that serves only to elevate a target's resolve.

A first hint confirming this conjecture was found in Table 10. It shows that the impact of retaliation on the mean value of the dependent variable is especially sharp when it is implemented. On one hand, in the fifty-six cases when no retaliation or threat of retaliation were put forth, the impact on the success score is minimal (from 1.44 to 1.59). On the other hand, when retaliation is implemented or a formal threat exists, the success score plummets to only 1.0. Among all variables, this constitutes the most profound impact. A second clue stems from the multinomial logit analysis. Table 11 displays that the variable is significant at the .005 level ( $P > |Z| = .002$ ) and the sign of its coefficient is in the hypothesized direction. A third test confirming the role of retaliation is constituted by the marginal impact of RETAL on the dependent variable. As suggested, Table 12 clearly demonstrates that the marginal impact of retaliation (or threat thereof) on the level of American bargaining success is limited. However, when this tool is exercised, it is a good indication of a policy failure. It has a non-negligible influence on all categories of the dependent variable. The predicted probabilities of

Success and Partial Success plunge by respective values of .105 and .209, while the predicted probabilities of Failure and Nominal success soar to .097 and .518 from their respective previous values of .028 and .273. It is interesting to notice that, among all variables, the last two figures illustrate the largest marginal impact on the predicted probability of Failure and Nominal Success.

It is also of interest that threat or use of retaliation have been used towards specific targets. Not only did the United States use this policy instrument against their three main trade partners, the EC (6 times), Japan (3 times), and Canada (twice), but also in all cases involving China (twice) and Thailand (3 times). In the latter cases, can we conclude that US negotiators have shown some exasperation indicating an incomprehension of the way of "doing business" of these fairly recent trade partners<sup>104</sup>? More studies on the specific trade relationship between these two countries and the United States would be needed to reach a definitive conclusion.

The dummy variable DVCGOOD indicates the dollar amount of the goods and services under dispute. An "important" case, for which the value of disputed goods and services equals or exceeds 100 million dollars was coded a 1. Other cases were coded as a 0. The main assumption was that "important" cases were harder to solve to the advantage of American negotiators. Therefore, we would expect a negative coefficient for this dummy variable. The empirical estimate of the variable, as indicated by Table 11, corroborates the hypothesis: the coefficient of DVCGOOD is in the right direction and it is highly significant ( $P > |z| = 0.039$ ). Table 12, on the marginal effects of

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<sup>104</sup> The first case indicating the use of Section (Super) 301 against Thailand starts in 1989, while it only starts in 1991 for China.

regressors, also authenticates the hypothesis. It discloses results exhibiting that when DVCGOOD equal its minimum value, the estimated probability of success for the American negotiators,  $Pr(3)$ , increases, thus indicating the negative relationship between DVCGOOD and Success. The opposite is also valid, when DVCGOOD bears its maximum value, the predicted likelihood of American bargaining success dwindles. The consequence of this variable is not, however, as singularly robust on the probability of American negotiating success as were the three previously examined variables (ISSUE, INSCONST and RETAL). Its strongest marginal repercussion seems to be on the propensity of achieving nominal success when the dummy variable takes on its maximum value (.108). This indicates that when an issue under dispute involves a large amount of money, an agreement is still possible, but its implementation presents many difficulties. These cases are often complex and involve many players in the implementation of the agreed upon outcome of an international negotiation. Despite a moderate marginal impact of the dummy variable, we may reach the conclusion (mostly because it is highly significant) that the value of the contested goods and services has a consequential negative bearing on the propensity of American negotiators to attain their aims.

To illustrate the economic necessity dimension of the theoretical model, I have combined data on unemployment and inflation to create a misery index. It was hypothesized in the previous chapter that in period of "bad times", US negotiators were in dire need of international trade agreements in order to "ratchet up" their economy. It is in fact the rationale behind the 1974 Trade Act. While the United States was losing its hegemonic grip on the international economy, a new, more aggressive, international

trade policy was needed. The side effect of a new aggressive bilateral economic policy was that it put the country at a certain disadvantage in international trade negotiations. This desire of international measures to dampen "unfair trade" could also be perceived by their foreign partners. Ergo, when a negotiator feels some sense of urgency in getting a "quick fix" or an hasty agreement, he puts himself into a disadvantageous bargaining position. This is, unfortunately, the situation in which American negotiators put themselves in bad economic times, especially during periods of stagflation. In consequence, we may suspect that the variable MISERY will not only be a significant factor explaining US negotiators prowess, but also that it will have its most profound impact when a combined measure of inflation and unemployment is high.

Table 11 shows that the variable is almost significant at the .1 level ( $P < |Z| = .136$ ). The marginal impact of the misery index uncovers more conclusive results. By consulting Table 12, we can see that, as suspected, it has its most salient bearing on the dependent variable when it takes on high values. It affects especially the propensity for American negotiators to obtain the middle categories of success with a marginal impact of .212 for nominal success and -.169 for partial success. Figure 16 is even more revealing. It shows that as the misery index increases, the respective predicted probabilities of failure and nominal success soar, while the respective predicted probabilities of partial success hit the floor. In sharp contrast the low values for the misery index, where the predicted probabilities of nominal success and full success are singularly similar, the gap between the two predicted probabilities of these two categories of the dependent variable becomes extremely wide. These findings add to the perception that in period of bad times, US negotiators are in a inconvenient bargaining position.

In light of these results, we may speculate that the mean level of success is low for the first years covered by this data set, when unemployment and inflation were high. Conversely, we may assume that American negotiators achieved more success in the mid-eighties when the US economy was soaring. Table 13 indicates the correspondence between yearly economic variables and yearly mean success score. The tables clearly shows that when the MISERY index was at its highest level in between 1979 and 1981, American negotiators achieved very few bargaining successes. On the other side of the spectrum, American negotiators obtained their greatest success during the 1986-87 period when MISERY fell to attain its nadir. Moreover, if we look at the data as a time series, we see some definite trends. With very few cases being concluded in the first few years covered by the data set (1976-78), American negotiators start out by obtaining a good overall score of success. As the MISERY index converges towards its peak (1979-80), a clear sign of stagflation, their level of success dwindles (from 3 to 1). The following two years, even if the economy seems to slowly get a better, American negotiators seem to still feel the pinch of the bad economic performances of the previous years and fail in all of the cases concluded during those years. It is only from 1984, when finally the MISERY index falls below the 10 points level, that, increasingly, Washington obtains its best bargaining accomplishments, reaching its apex in 1987 (despite a good increase in the MISERY index from the previous year). After an adjustment period in 1988 (when MISERY came down a little bit, while US negotiators obtain a little less success), the dog years of 1989 and 1990, when the misery index once again climbed above the 10 points mark, had a slight negative impact on the bargaining fortune of the United States. Finally, despite the fact that the MISERY index returned below the 10 points

mark (inflation was curbed while unemployment knew a slight increase), American negotiators did not recover, in terms of their bargaining achievement, from the "bad economic times" of 1989-90 for the rest of the period covered by this study.

According to those results, two conclusions can be reached in terms of the impact of American economic performance on the US negotiators' ability to settle for agreement meeting their objectives. First, the misery index has a salient effect on the middle categories of the dependent variable, especially when the combination of unemployment and inflation is particularly high. Second, there appears to be a lingering effect, such that even when the US economy is recovering, it takes a few years before it can be translated into bargaining success for American negotiators when resorting to Section (Super) 301.

TABLE 13

Yearly Economic Data and Yearly Level of Success by American Negotiators

| Year | (N) | Unemployment | Inflation | Misery Index | Yearly Score |
|------|-----|--------------|-----------|--------------|--------------|
| 1976 | 2   | 7.7          | 4.47      | 12.17        | 2            |
| 1977 | 1   | 7.1          | 6.41      | 13.51        | 3            |
| 1978 | 1   | 6.1          | 7.88      | 13.98        | 3            |
| 1979 | 3   | 5.8          | 11.17     | 16.97        | 1            |
| 1980 | 6   | 7.1          | 13.4      | 20.5         | 1            |
| 1981 | 2   | 7.6          | 9.2       | 16.8         | 1            |
| 1982 | 3   | 9.7          | 4.06      | 13.76        | 0            |
| 1983 | 1   | 9.6          | 1.6       | 11.2         | 0            |
| 1984 | 4   | 7.5          | 2.07      | 9.57         | 1.25         |
| 1985 | 8   | 7.2          | .96       | 8.16         | 1.38         |
| 1986 | 6   | 7.0          | -1.43     | 5.57         | 2.17         |
| 1987 | 2   | 6.2          | 2.3       | 8.5          | 2.5          |
| 1988 | 5   | 5.5          | 2.47      | 7.97         | 2            |
| 1989 | 6   | 5.3          | 5.18      | 10.48        | 1.5          |
| 1990 | 14  | 5.5          | 4.93      | 10.43        | 1.43         |
| 1991 | 3   | 6.7          | 2.1       | 8.8          | 1.33         |
| 1992 | 6   | 7.4          | 1.23      | 8.63         | .83          |
| 1993 | 2   | 6.8          | 1.22      | 8.02         | 1            |
| Mean | -   | 7.0          | 4.4       | 11.4         | 1.44         |



The variable TBAL represents the trade balance between the United States and the target. A positive balance for Washington is indicated as a positive value. It was hypothesized that American negotiators would have more difficulty reaching their objectives if they had a surplus of trade with the target country. The logical explanation being that it is difficult for American negotiators to sway representatives of a target when trying to convince them of unfair trade practice on their part, if the United States already has a positive balance of trade with the target. American negotiators have a stronger case to defend if their balance of trade with the target is negative. Hence, the sign of the regressor in the statistical analysis should be negative: a positive balance of trade for the United States is conducive to less bargaining leverage for US negotiators. Not only does Table 11 displays a negative coefficient, but it also exhibits a high significance ( $P > |z| = .012$ ). Furthermore, among all independent variables, this variable demonstrates the strongest impact on the predicted probabilities of American bargaining success, as displayed by Table 12. The greatest impact is on the probability of success ( $Pr = 3$ ) when the variable is at its lowest value, with a marginal effect of .481. This means that American negotiators have a very strong case to argue when they have a large trade deficit with a target. We can even assert that the best predictor of **full** success for the United States when using reciprocity and retaliation is the size of its trade deficit with the target country (or group of countries). It is interesting to note, however, that this does not apply to the prediction of partial success ( $Pr = 2$ ) under the same circumstances, as its marginal effect is negative (-.233). The main explanation for this phenomenon is that without a large trade deficit, all else being equal, cases that are predicted as a full success, would probably be coded as a partial success.

The variable is especially effective in assuring the transition between a partial success and a full success. Nevertheless, the balance of trade has the hypothesized marginal impact on the predicted probability of nominal success (-.233). All these results put together, we have a good indication that the principal impact of a large trade deficit is to decrease the possibility of failure, a nominal success, or a partial success in favor of an all across board bargaining success. The variable has also an important impact when it is at its maximum value with marginal effects of .19 and -.145 on the respective predicted probabilities of nominal and partial success. Thus, even though its impact is not as strong as a trade deficit, a trade surplus for the United States is a good indication of the difficulty facing US negotiators in dealing with international actors when resorting to Section (Super) 301. It affects particularly the ratification procedure of an agreement in a target country, as suggested by the marginal impacts on the predicted probabilities of nominal and partial success.

Figure 17 is a graphical representation of the marginal impact of the balance of trade on the degree of bargaining success for the United States. It clearly indicates that the predicted probabilities of failure and nominal success increases as the trade deficit of the United States shrinks to a point of becoming a commercial surplus. The influence is even greater on the predicted probability of success: the curve representing its predicted probabilities has a very sharp drop, such that it is crystal clear that the chances of total success are much higher as the trade deficit increases. The results regarding the predicted probabilities of partial success are more puzzling: Figure 17 shows that the probabilities of partial success are lower with large deficit than with small deficits, but as the deficit goes towards a surplus the relationship is as expected, i.e., the predicted

probability of partial success decreases. Again, this is a possible indication a case that would have been predicted as a partial success, without the impact of a large trade deficit, is now predicted as a full success. Overall, the balance of trade between the target and the United States may represent the best indicator of the fortune of Washington when it goes ahead with instruments of reciprocity and retaliation.

If we look at the level of success of the United States with targets having a large positive balance of trade with Washington, we also uncover interesting findings. It is well acknowledged that, of all targets included in this study, the United States' largest trade deficit is with Japan. If we look back at Table 4, we can see that Japan is also the target with which the United States has the best level of bargaining success. I will discuss further the specificities of the structure of negotiation affecting bargaining between the two countries, but we can already ascertain that the leading indicator of the overwhelming level of success attained by American negotiators vis-à-vis Japan is the balance of trade between the two countries. The United States also has large trade deficits with Canada, Brazil, Korea, and Taiwan. Again, if we consult Table 4, we find that the USTR achieves a reasonably good level of success when confronting those targets. At the other end of the spectrum, we discover that the United States has a very low level of success with countries with which it has a trade surplus. With none of those targets, it has a degree of success higher than 1. If we include EC, which case is discussed in the next paragraph, the top seven targets, with which the United States enjoys the highest level of bargaining success, are also the exact same countries with which it has large trade deficits! This constitutes a compelling evidence of the impact of trade balance on US international trade bargaining fortune.

The EC represents the most engaging case. Prior to 1985 and after 1989<sup>105</sup>, the United States had a trade surplus with the European Union. During the years in between, it had to contend with a very important trade deficit. We would therefore suspect that the United States would have a better bargaining success with the Community when it had a trade deficit. If we inspect the respective combined scores indicating the level of US bargaining success when it had a trade surplus and compare it to a similar measure when it has a trade deficit, we obtain a clear picture of the situation: when the United States had a trade surplus with the European Union, it only achieved a mean level of success of 1 (i.e. nominal success on average); while its level of success climbs to 1.7 (i.e., almost partial success) when it has a trade deficit with its European counterpart. These findings add to the confirmation of the prediction that trade balances have a consequential influence on the degree of bargaining success in international trade and investment negotiations.

The bivariate analysis, the ordered multinomial logit test, and the marginal impact of the independent variables on the dependent variable largely confirming the theoretical propositions, logical underpinnings, and hypotheses of the dissertation. Nevertheless, two variables, presidential approval and trade interdependence as controlled by GNP, turned out to be inappropriate elements of analysis. While it was highly significant when it involved a target (INSCONST), the level of institutional constraint in the US domestic institutions did not yield significant results, but we were still able to unearth an interesting finding: in may be true that division within Congress has no real bearing on

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<sup>105</sup> More exactly, the EC and the United States had a roughly equal balance of trade between them in 1989 and 1990.

international trade agreement, but division between Congress and the Presidency affects the bargaining leverage of US international negotiators. A combined measure of inflation and unemployment (Misery index) rate has been used to unveil the impact of the American economy on its US international negotiators. It revealed two absorbing results: results: when the misery index is high, it negatively affects the US bargaining performance, and there exists a certain lag effect, such that it takes two or three years for an improving economy to translate into better bargaining fortune. One of the most engaging finding of the empirical analysis is the relationship existing between trade interdependence and outright US bargaining success: when the asymmetry of trade was to the disadvantage of US negotiators, their increased level of resolve helps them accomplish more full bargaining success, but greatly deflates their chances of gaining partial or even nominal successes. Their "all or nothing" strategy seem to work adequately in most cases, but sometimes falls outside a target's "win-set" and Washington has no choice but to resort to other policy instruments than negotiations if they want to achieve their international aims. Confirming results obtained by Bayard and Elliot (1994), this analysis demonstrates that issues for which direct retaliation is possible, such as tariffs, are more easily resolved to US satisfaction than more complex issues of intellectual properties or governmental procurement. The analysis also divulges that a threat or use of retaliation or reciprocity while negotiations were under way, it constituted a net indication the American negotiators were unlikely to reach their bargaining aims. As hypothesized, the value of the contested goods and services have a negative impact on the propensity of bargaining success for Washington. Finally, the analysis has revealed some compelling evidences regarding the balance of trade between

the United States and a target. Trade balance appears to be the single most important factor explaining US bargaining success when using Section (Super) 301.

What does all of this have to say about the theoretical propositions and parameters of the formal model? The next section tackles this question. It is followed by the influence of these factors on the bargaining results obtained by the United States when confronted with its three major trading partners, that is, Canada, Japan, and the European Union. Then, an alternative model that assumes compliance instead of interdependence, in an effort to uncover the main elements explaining the fortune of American negotiators when they exercise their reciprocity and retaliation options, is tested.

### *iii- Elements of analysis of the theoretical model and parameters of the formal model*

A closer look at the model reveals interesting results regarding the differential impact of domestic and international factors.

One of the most striking result of the ordered multinomial logit analysis is the impact of the interdependence elements of analysis (DEP and DEPGNP). When trade interdependence was calculated according to the share of countries' GNP accounted for trade with a specific target (DEPGNP), it showed to have little impact on bargaining leverage. It was not the case when we also consider respective share of exports in transit between two countries (DEP). Indeed, this proved to be highly significant, but the sign of the regressor was in opposition to what was hypothesized. It was speculated that the reason for this puzzling result could be due to high resolve exhibited by negotiators when suffering from trade asymmetries. Nevertheless, we must perforce admit that the

interdependence propositions did not pass the test. Still, it has uncovered unsuspected and non obvious results, which, in terms of a research agenda, opens some brand new doors.

Nevertheless, not all international variables behaved erratically. The variable entailing the type of issue discussed (ISSUE) has shown to be significant at the .01 level and had an important impact on the predicted probabilities of the dependent variable. However, this variable did not directly test the proposition regarding the structure of trade between the negotiating parties; more work remains to be done in this direction. At least, this statistical analysis demonstrates that a threat of retaliation is much more credible when it involves a tariff or a quota than when it is related to issues of intellectual property, and health and environmental standards.

As for the institutional constraint proposition, it appears that, under the specific context for which it was tested, the proposition is mostly reliable when applied to the target of a threat of retaliation. In fact, the empirical analysis showed very weak support, in terms of its significance, for the influence of institutional constraint on American negotiators. Nevertheless, its marginal impact on the dependent variable was relatively important and there are some good signs indicating that institutional division between Congress and the Presidency affect US bargaining leverage. The results regarding the level of domestic institutional constraint in the target countries are more encouraging. It seems to be true, at least in this specific test, that, for a target, a large level of domestic political constraint is an added leverage in international trade and investment negotiations: American negotiators obtained, *ceteris paribus*, much less success when facing highly divided political systems.

The two variables serving as indicators of economic necessity demonstrated promising results. According to the empirical results of the test, the rate of success obtained by Washington appeared to be influenced negatively by its misery index, the value of disputed goods, and the use or threat of retaliation. First, in periods of high unemployment rate and inflation, American negotiators may have been in a weakened position because they counted on an agreement to act as a panacea for their economic dry spells. Hence, under those circumstances, they preferred to sign an imperfect deal in a short order, instead of waiting longer and go ahead with their measures of reciprocity and retaliation. Second, results clearly indicate that the value of the goods under contention have a profound impact on bargaining success. These results seem to indicate that not only is it difficult to get a satisfying agreement when the dollar amount involved in the dispute is immense, but also is an indication that American negotiators would often be satisfied with a nominal success, instead of continuously negotiating for a better agreement. As for the political necessity element of analysis, the use of or the threat of retaliation is a good indicator that the negotiations are going nowhere for American representatives, such that they are very unlikely to reach even some partial success.

The societal support element of analysis was the hardest to test empirically. The two variables were chosen to represent the best proxies that could be used to unveil the statistical force of the American societal support. The trade balance between the United States and target countries is probably the best indicator of the bargaining fortune of American negotiators. It seems to be true that large trade deficits attracts a lot of attention from the public, which in turns accentuates the resilience of American negotiators. It is with a high degree of skepticism that I included in the analysis the



proposition that presidential approval plays a role in international economic negotiations, especially when issues discussed are not well-known by the general public. The statistical analysis indicated indeed that this variable had no bearing on the level of success attained by US negotiators. This mixed result regarding societal support warrants some further research. More particularly, students of international trade negotiations will need to use some imagination to determine which adequate, empirically testable, variables could best represent this element of analysis.

Propositions 9, 10A, and 10B indicated the expected relationship between the international costs for a breakdown in the negotiations and interdependence issues. There is scant evidence in the empirical test to support the credentials of this parameter of the formal model. This occurred, for different reasons. First, as indicated previously, the data set used in the empirical test does not do justice to a test for interdependence. The results obtained from the data set collected to test the success of American negotiators for using Section (Super) 301 may not be translated directly to other instances of international trade bargaining with much wider scopes. One can still suspect issues of interdependence to be consequential in these last instances. Thus, the relationship between interdependence and international costs for a break down in the negotiations should not be entirely discounted. Second, in the specific case of the use of Section (Super) 301 by the United States, the real relationship might be between the perceived costs associated with a breakdown in the negotiations by the targets' negotiators and their level of trade dependence towards Washington. Indeed, when the United States Trade Representative (USTR) opens a "case" there is already an acquiesced willingness to suffer the costs involved with an impasse in the negotiations. Thus, the onus of a break

down is put on the other side. The compliance model will test this proposition. Third, and finally, the empirical test did not consider propositions 10A and 10B. In the short term, it was not possible collect data on complementarity of trade. Nevertheless, it could easily be argued that the type of dispute has a important effect on the costs associated with an deadlock in the negotiations. That is, at least, what the empirical results seem to demonstrate. The international costs for a breakdown were much higher for the target when the United States could use direct and commensurate trade retaliation if the negotiations failed. That is precisely what the variable ISSUE was testing: when the point of contention was a quota or a tariff, Washington could easily retaliate with commensurate measures of reciprocity. This acted as a sword of Damocles hanging over the head of the negotiators of target countries.

More positive comments can be made regarding the information parameter of the bargaining model. Proposition 11 indicated that the more domestic institutional constraint negotiators are faced with, the less information about their type they convey to other negotiators. Furthermore, proposition 8 said the less information about their type negotiators convey to the other side, more bargaining leverage they have. Seen from this perspective, it is not surprising that the variable DIVIDED, a measure of American institutional constraint, displayed mitigated results: the use of Section (Super) 301 is in itself a mandate to initiate retaliation. However, it leaves a door open for further negotiations before the implementation of the measure. In the meantime, if the American President and Congress do not see eye to eye on which general international trade politics to hold, it sends some mixed messages to international targets. This situation is more likely to occur when the Presidency and Congress are controlled by

different parties. There seems to be some international asymmetric information advantage for American negotiators, not in a divided Congress. If US domestic institutions are undivided, it leaves no doubts in the minds of opposing negotiators. Hence, the latter have full information--even though they might not like the information they receive-- about the type of negotiators they are facing. Conversely, when a target is highly institutionally constrained, American negotiators do not have the luxury of knowing the type of negotiators they are facing. This explains why the variable representing a target's institutional constraint was highly significant and had such an impact on the predicted probabilities of the dependent variable. Americans, according to the test, have a much harder time reaching their goals when they are facing a target which embodies a highly diffuse decision process. Henceforth, it is possible to conclude a strategy based on the concealment of private information, especially when it is institutionally induced, has a portentous impact on bargaining strategies and negotiation outcomes.

With the exceptions of the effect of presidential approval (APPROV), all dimensions (Political and economic necessity, and Societal support) and variables (DVCGOOD, RETAL, TBAL, and MISERY) representing the domestic costs for delays demonstrated good results in the empirical test. More particularly, these results indicate that American negotiators were more inclined to settle for nominal or partial success instead of holding out for a better outcome when the following conditions occurred: the issue at stake was very high (DVCGOOD), their misery index was high (MISERY), they had a large commercial surplus with the target, and they relied on threat or use retaliation to attain their objectives. In all those situations they were facing high

domestic costs for delays in the negotiation and preferred to settle early instead of holding out.

This section provided some general comments in regards to the effectiveness of the elements of analysis of the theoretical model and the parameters of the bargaining design. Now, we must turn to a more specific, more descriptive, type of analysis: the role played by the independent variables of the statistical analysis in explaining the bargaining success of Washington with its three main trade partners (i.e. Canada, Japan, the European Union). That represents the task of the next section.

*iv. From the General to the Specific: US Bargaining Success Versus Canada, Japan and the European Union.*

In exploring the bargaining relationship between the United States and its three main international economic partners, three questions come to mind: 1) What is the model's performance in evaluating the level of success of American negotiators with those targets? In other words, is there a high level of correspondence between the "coded" and "predicted" scores" for each of those targets? 2) What are the main elements of analysis that best explain the level of success obtained by American negotiators when dealing with those targets? 3) How can we assess the American negotiators' performance with each of those targets, given the specific structure of negotiation affecting the bargaining process between the United States and those targets? Each of these questions will be dealt with in turns..

Tables 14, 15, and 16 represent the respective performance of the ordered multinomial logit model with each of Washington's three main international economic

partners. They exhibit the type of issue over which negotiators bargain, as well as coded and predicted scores for the dependent variable. The last column indicates with an "X" cases correctly predicted. The first striking revelation of these tables is that the model performs much better in predicting the outcome of a negotiation when it involves Japan (75% correctly predicted) rather than Canada (40%) or the European Union (45%). The second finding is that in the great majority of the cases, the model's prediction is never "off the mark" by much (e.g. a predicted score of 1 is coded as a 0, or a predicted score of 3 is coded as a 2)<sup>106</sup>. Finally, a third finding is that there is no skewness in the distribution of the cases that were wrongly predicted, i.e., there is no tendency to err in the same direction (no under or over-estimation). To add to this general interpretation, we can look at the specific model's performance regarding each target.

TABLE 14  
Interdependence Model Performance for Cases Involving Canada

| Casenum | Issue        | Coded | Predicted | Identical |
|---------|--------------|-------|-----------|-----------|
| 2       | Eggs         | 3     | 2         |           |
| 14      | Broadcasting | 0     | 1         |           |
| 25      | Subway Cars  | 0     | 2         |           |
| 42      | Fish         | 2     | 2         | X         |
| 66      | Beer         | 1     | 1         | X         |

<sup>106</sup> In only one case out of thirty-seven involving those targets has the model entirely erred in the wrong direction (case #25 involving subway cars with Canada). For the entire data set, this situation occurred in only one other case (case #30 Soybean oil and meal, Portugal).

Table 14 shows that the model does not perform well in predicting the level of American bargaining success when the target of Section (Super) 301 is Canada. In only 40% of the cases does the model predict adequately the value taken by the dependent variable<sup>107</sup>. This is less than the overall accuracy of the model (55%) and barely more than the naive model (37%). Also, there doesn't seem to be any correspondence between the type of issue involved and the model's performance<sup>108</sup>.

The interdependence model performs very well in predicting cases involving Japan. Nine out of twelve cases are predicted accurately (75%) and those that are wrongly predicted are close to predicted values<sup>109</sup>. This is far better than the overall level of success of the model. It is interesting to note that all cases related to the service or agriculture sectors are correctly predicted; compared to only four out of seven cases related to the secondary sector. It is especially true of the high technology sector (semiconductors and supercomputers), for which the model was too optimistic in predicting American's success. This might be an indication of the model's underspecification, such that a special dummy variable representing "high-tech" cases could be included in the model.

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<sup>107</sup> The compliance model tested in the next section is even less accurate; predicting only one case involving Canada correctly. Nevertheless, we should take these results with a certain "grain of salt", given the size of the sample.

<sup>108</sup> Even though it is true that the model has especially erred for the only case involving the secondary sector.

<sup>109</sup> Strangely enough the CCP for Japan in the compliance falls to 50%. This could suggest that in the case of Japan, the interdependence model is more adequate.

TABLE 15

Interdependence Model Performance for Cases Involving Japan

| <b>Casenum</b> | <b>Issue</b>   | <b>Coded</b> | <b>Predicted</b> | <b>Identical</b> |
|----------------|----------------|--------------|------------------|------------------|
| 11             | Thrown Silk    | 3            | 2                |                  |
| 12             | Leather        | 2            | 2                | X                |
| 16             | Cigars         | 1            | 1                | X                |
| 18             | Pipe Tobacco   | 1            | 1                | X                |
| 27             | Footwear       | 2            | 2                | X                |
| 35             | Semiconductors | 1            | 2                |                  |
| 37             | Cigarettes     | 3            | 3                | X                |
| 52             | Citrus         | 3            | 3                | X                |
| 55             | Construction   | 2            | 2                | X                |
| 60             | Satellites     | 3            | 3                | X                |
| 61             | Supercomputers | 2            | 3                |                  |
| 62             | Wood Products  | 2            | 2                | X                |

TABLE 16

Interdependence Model Performance for Cases Involving the European Union

| Casenum | Issue                        | Coded | Predicted | Identical |
|---------|------------------------------|-------|-----------|-----------|
| 3       | Egg Albumin                  | 2     | 1         |           |
| 4       | Canned Fruits and Vegetables | 1     | 2         |           |
| 5       | Malt                         | 0     | 1         |           |
| 6       | Wheat Flour                  | 0     | 0         | X         |
| 7       | Canned Fruits                | 1     | 1         | X         |
| 8       | Soybeans                     | 1     | 1         | X         |
| 10      | Steel                        | 2     | 1         |           |
| 15      | Wheat                        | 1     | 1         | X         |
| 20      | Sugar                        | 0     | 1         |           |
| 21      | Poultry                      | 1     | 1         | X         |
| 23      | Pasta                        | 2     | 1         |           |
| 24      | Canned Fruits and Raisins    | 1     | 1         | X         |
| 41      | Corn, Sorghum, Oilseeds      | 3     | 2         |           |
| 46      | Meatpacking                  | 1     | 2         |           |
| 48      | Beef                         | 0     | 1         |           |
| 49      | Soybeans                     | 1     | 1         | X         |
| 56      | Fabricated Copper            | 3     | 2         |           |
| 57      | Canned Fruits                | 2     | 1         |           |
| 67      | Corn, Sorghum, Oilseeds      | 2     | 2         | X         |
| 69      | Meatpacking                  | 1     | 1         | X         |



The model's performance in cases involving the EC is a little worse than its overall efficiency, predicting half of the cases adequately<sup>110</sup>. We first notice that most cases (18 out of 20) involve agricultural products. This is not a striking revelation given all the histrionics that went on between the US and the EC during the Uruguay round negotiations. Farm subsidies, especially in France, is a "way of life" that most cultivators are very reluctant to give up. In the two cases involving the secondary sector (#10 steel, and #56 fabricated copper), the model underestimated the level of success for American negotiators. Once again, this could warrant the creation of a new variable discriminating between different sectors of the economy: agriculture, primary sector (others), secondary sector (excluding hi-tech), hi-tech, services. The problem with this potential variable is to theoretically determine an ordinal impact of its categories<sup>111</sup>.

In an attempt to answer questions 2) and 3) at the top of this section, a table reporting a crosstabulation of the significant variables of the interdependence model with different targets of Section (Super) 301 was constructed. The five columns of Table 17 represent the three main US trade partners (Canada, EC, and Japan) and separate categories for the Asian/Pacific bloc (except Japan) and residual targets. The significant variables are represented in the rows, as well as the number of cases involving each

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<sup>110</sup> The compliance model does worse with a 35% CCP.

<sup>111</sup> For instance, we could put forth a strong argument indicating that hi-tech cases are harder to solve than those in other sectors, but how could we discriminate, for instance, between the potential impact of agricultural products versus the service sector? An alternative, would be to create dummy variable for each sector of the economy. The problem with that approach is that we end up with a very cumbersome model in which the number of cases coded as a one (for instance a "1" would indicate the hi-tech sector, and a "0" would indicate otherwise) would be very small, not to mention an important loss of degrees of freedom.

category of targets. A "plus sign" in the table marks an asymmetrical advantage for the United States, given a specific variable. A "minus sign" indicates a structural bargaining advantage for the target<sup>112</sup>. An "equality" sign symbolizes that there is no clear bargaining advantage. The row named "overall" is an assessment of the impact of the general structure of negotiation (i.e., considering all significant variables) on the bargaining leverage of US negotiators vis-à-vis each targets. Once again, a "plus sign" signify an overall bargaining advantage for the United States. The bottom row displays the mean level of success achieved by American negotiators when facing each target. Two more explanations regarding Table 17: 1) DEP's (trade interdependence) impact is assessed in terms of its statistical result, not in terms of its hypothesized impact. In other words, cases in which the US was more dependent on a target, rather than the reverse, were considered as an indication of US bargaining strength. 2) The impact of RETAL was not entered (use of or threat of retaliation), as this variable is not a direct indicator of the negotiation structure between the United States and a target.

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<sup>112</sup> As an illustration, a minus sign at the intersection of the EC as a target and INSCONST indicates that the EC is highly institutionally constrained, it constitutes a bargaining handicap for the United States. A large asymmetry is indicated by two plus signs or two minus signs.

TABLE 17

Assessment of US Bargaining Success Vis-à-Vis Different Targets

| <b>Variable/Target</b> | <b>Canada</b> | <b>EC</b>   | <b>Japan</b> | <b>Pacific</b> | <b>Others</b> |
|------------------------|---------------|-------------|--------------|----------------|---------------|
| <b>(N)</b>             | 5             | 20          | 12           | 23             | 15            |
| <b>DEP</b>             | (-)           | (+)         | (-)          | (-)            | (-)           |
| <b>ISSUE</b>           | (=)           | (-)         | (-)          | (-)            | (-)           |
| <b>INSCONST</b>        | (+)           | (-)         | (+)          | (+)            | (+)           |
| <b>DVCGOOD</b>         | (+)           | (=)         | (=)          | (-)            | (+)           |
| <b>TBAL</b>            | (+)           | (+) and (-) | (++)         | (++)           | (=)           |
| <b>Overall</b>         | (++)          | (=)         | (+)          | (+)            | (=)           |
| <b>Score</b>           | 1.2           | 1.25        | 2.08         | 1.43           | 1.27          |

Table 17 contains a wealth of information. To reveal its richness I discuss below each of its elements. But first, a few general comments are in order. The overall negotiation structure appears to favor the United States, with the exception of its dealing with the European Union or residual targets. Nevertheless, the connection between bargaining leverage derived from an asymmetrical structure of negotiation does not lead directly to successful outcomes. Indeed, on average the level of bargaining success attained by Washington is low. Should we conclude automatically that the Office of the USTR is "chasing phantoms" when resorting to Section (Super) 301 (Noland, 1997)? Maybe not necessarily. This situation brings water to the argument that a sample selection bias negatively affects US negotiators bargaining fortune<sup>113</sup>. Cases that are easier to solve are dealt with informally; only "hard to crack" cases make it to the formal stage. Despite the sample selection bias, it is feasible to make an assessment for the level of US bargaining success in regards to different targets. For instance, given the favorable structure of negotiation vis-à-vis Canada, one cannot help but be surprised that the USTR would, on average, have so few successes with its Northern neighbor. Let's delve into the details of Table 17 to find some explanations to these engaging phenomena.

- Canada

The negotiation structure, according to the variables used in this study, endows the United States with a stark asymmetric bargaining advantage. In Table 17, the only

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<sup>113</sup> In all fairness to Noland, it must be indicated that he acknowledges this negative bias and circumvents it in a research design that is different than the present.

variable that is indicated as giving a bargaining advantage to Canada is the trade structure between the two countries. Still, it is noted that when the impact of this variable is examined (see especially Table 12 and Figure 13) that it is only when the United States is more dependent on the other side, rather than the contrary, that the variable has a salient impact on the outcome of a bargaining session. In consequence, the lack of US trade dependency is not transferred directly into a bargaining advantage for Canadians.

Three of the five issues involving negotiations between Canada and the United States were related to tariffs or quotas. There is, therefore, no clear-cut advantage that can be bestowed on either side according to the results displayed by this variable.

The level of institutional constraint in a target's domestic political system has a significant impact on an international trade bargaining outcome. In this case, a low level of institutional constraint in Ottawa constitutes an added bargaining bonus for American negotiators. The low level of institutional constraint in Canada (Parliament is controlled by the Executive) implies that Canadian negotiators bargain in the name of the Prime Minister, who in turns, can easily get ratification when a deal is struck with the Americans. This negates the institutional veto power of Parliament. There is therefore no uncertainty in the minds of American negotiators regarding Canadian ratification process, and it constitutes, *de facto*, an international bargaining weakness for Canada.

Estimated values of contested goods and services in negotiations involving the two North American trade partners never surpass the 100 million dollars mark. Those "small" cases can more easily be resolved to Americans' satisfaction than cases entailing consequential amounts of money. Consequently, this adds to the probability for American negotiators to sign an beneficial agreement.

For the entire period covered by the data set, Canada had a trade surplus with its Southern neighbor. The US trade deficit with Canada was not of the magnitude it had with Japan, but it grew significantly during the 1980's. This drew significant attention from Congress. This increased awareness logically translated into tougher, more adamant, negotiating stances. Since the empirical results show that trade balance is the single most important factor leading to American bargaining success, the trade deficit with Canada endows the United States with a consequential bargaining advantage.

My general evaluation of the structure of negotiation between Canada and the United States is that Americans have a very significant advantage. All important variables point in that direction. It is therefore a striking revelation that American negotiators did not obtain more success Canada. What could account for this discrepancy between negotiation structure and American bargaining success with Ottawa? We can investigate a few hypotheses. A long lasting friendship between the two neighbors may suggest that there exists a "special relationship" between them. Close contacts between them set up a routine in which trade partners on both sides of the table develop a high level of trust for their counterparts. It is beneficial in an iterated relationship to make small concessions in order to avoid a breach of trust. Also, throughout those years of close friendship, in the eyes of American officials, the Canadian economy was seen as an extension of the American economy. Thus, when we explore trade relations between Canada and the United States, we might not be studying international trade politics, but some kind of trade politics that falls in between domestic and international trade politics. The synergy between Canadian and American business is another element suggesting a special relationship between the two nations. Approximately 40% of Canadian

manufacturing output is owned by American companies (Williamson, 1993: 34). Hence, when resorting to Section (Super) 301, the Office of the USTR is falling prey to pressures from specific industries, but it cannot be too forceful in its demand in order to avoid endangering an overall trade relationship, which would not only strain what is considered a special friendship, but also ultimately affect numerous companies doing business in Canada. By being too inflexible, American negotiators could simply shoot themselves in the foot! Another element of explanation is that in multilateral trade negotiations, American officials need strong support from their best ally, this ally being Canada. For instance, there is more at stake on the international scene when haggling over multilateral reduction of agricultural subsidies than a bilateral dispute with Canada over beer distribution. By pushing too hard for a resolution of a bilateral issue with Canada, even with a clear bargaining advantage derived from the structure of negotiation between them, American officials put themselves at risk of losing some consequential backing in the international trade arena.

In itself, the study of this "special relationship" requires more consideration and could be the subject of an entirely new dissertation. Nevertheless, there are enough evidences to suggest that it can account adequately for the discrepancy between the structure of negotiation, which indicates asymmetrical bargaining leverage in favor of the United States, and the relatively low level of success obtained by Washington.

- The European Union

The structure of negotiation between the United States and the European Union is one based on asymmetry. My empirical results showed that the most discriminating

and important factor affecting an outcome of international trade negotiation between them is their trade balance. When the United States has a trade surplus, the advantage is in the Union's court. Conversely, in periods of trade deficit for Washington, American negotiators accrued bargaining leverage<sup>114</sup>. When discussing the impact of trade balance on bargaining outcome, I supplied a demonstration of its bearing on negotiations between the European Union and the United States. The best American successes happened between 1985 and 1989, when they had a trade deficit with the EC. Now that they have redressed the situation, we may expect negotiating difficulties for American representatives when dealing with their European analogues.

Other variables representing the negotiation structure between the two international entities cancel each others out. The main American advantage when resorting to Section (Super) 301 against Brussels stems from its trade dependency towards the Union. This factor is significant enough to upset the disadvantage it gets from the type of issue they haggle over and the Union's level of institutional constraint. When trade interdependence between a target and the United States indicates an asymmetrical disadvantage for Washington, its negotiators adopt a "take it or leave" bargaining position. Table 12 showed that when American negotiators utilize such a risk acceptant strategy, they are more likely to achieve full bargaining success to the detriment of partial or nominal success. On average, this endows them with more bargaining leverage with the European Union, a target towards which they are highly dependent for their international trade output.

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<sup>114</sup> This explains why I entered a "+" and a "-" to describe the impact of the variable on trade relationship between them in Table 16.



The counterbalance to the impact of trade interdependence is provided by the type of issue negotiated with the EC and the latter's level of institutional constraint. Almost two-third of the disputes between the EC and the United States involve non quota or tariffs related issues. There is no entrenched precedents set to help negotiators find a suitable compromise for non-border problems such as health and security issues or governmental procurement. The successive rounds of the General Agreements of Tariffs and Trade (GATT) did not provide an adequate framework to steer bilateral negotiations regarding those impediments to trade. This situation creates a void that impede a successful conflict resolution. The consequence is that American negotiators cannot point to a specific set of international standards when accusing an international target of unfair trade policies. It is especially difficult with the European Union at the time when its members are themselves trying to come to grip with a set of standards to resolve those issues.

This leads to the second structural bargaining aspect for the EC. As a diffuse decision-making community, the European Union sends a signal of division to American negotiators. Skillful European negotiators can use this internal division on the international stage. They can haggle for less concessions to American negotiators by pointing to the shadow of a failed ratification. Facing the prospect of an agreement that would not gain the favor of EC members, American negotiators have an incentive try to settle for at least a partial success. However, this may not be the avenue taken by American negotiators according to the results of Table 12. It shows that when a target is highly institutionally constrained the predicted probability of partial success decreases while the predicted probability of nominal success increases. This is an indication that

American trade officials may have not been inclined to make more concessions even when facing the prospect of "involuntary defection".

The last significant variable included in this brief analysis is the value of the contested goods and services. There is no aggregate bargaining advantage derived from that variable. About 50% of the cases debated between the United States and the EC surpass the 100 million dollars mark. It is therefore not possible to grant a bargaining advantage to either of the international entities.

An overall assessment of the structure of negotiation between the EC and the United States leads to the conclusion that one side gains a slight advantage when it has a trade deficit with the other side. Given that in the majority of the cases (12 out of 20), the United States has an important trade surplus, it is not surprising to find out that its aggregate level of success vis-à-vis Brussels is slightly below its overall level of success (1.25 compared to 1.44). Therefore, we can conclude that the level of success obtained by American negotiators when facing the Union's trade representatives is in accordance with the structure of negotiation affecting their bargaining encounters.

- Japan

The results of Noland's analysis on the attention given by the Office of the USTR to international trade targets indicate that Japan is "singled out, beyond what would be expected on the basis of its economic characteristics" (1997: 366). Noland also demonstrates that US trade actions were efficacious when Japan is targeted (Ibid: 384). His results go side by side with the premisses of this dissertation. Not only is the structure of negotiation is favorable to the United States, but also Japan is often the

perfect scapegoat for American economic woes in the eyes of the public. It is therefore logic to believe that the Office of the USTR would single out Japan and would also achieve a high level of success when targeting Tokyo. Indeed, a large number of cases in the data set implicates Japan and American negotiators to have on average their best successes when confronted with the Pacific country. Let's explore the structure of negotiation between the United States and Japan in more details.

Two factors (trade interdependence and issue type) that play in favor of Japan when facing American threat of trade retaliation are not as significant as two other factors (institutional constraint and trade balance) affecting negatively its bargaining power. The first of the two favorable factors, trade interdependence, displays a relationship in which Japan depends more on the United States for its international output than the reverse situation. We have seen, however, that in those circumstances, the variable does not have a large impact on American bargaining success. Thus, we can only confer a slight bargaining advantage to Japan on the basis of this variable. The second factor leading to a certain bargaining advantage for Tokyo, the type of issue involved in a dispute with the United States, has a more salient impact on the dependent variable. The majority of trade disputes (8 out of 12) included in the data set between Japan and the United States are not related to quotas or tariffs. As indicated before, these issues are harder to solve to Washington's satisfaction and, consequently, it confers to Japan a certain bargaining advantage.

As was the case with Canada, the lack of institutional constraint in Japan facilitates the bargaining situation for American trade representatives. Due to Japan's parliamentary system, its trade representatives cannot use a "good cop, bad cop" strategy

to encourage American negotiators to think that an agreement will not be ratified by the Japanese Diet<sup>115</sup>. This bestows American negotiations with a bargaining advantage.

In his recent study of the politics of the USTR, Noland (1997) argues that the most important aspect attracting the Office's attention is the balance of trade between the United States and a foreign nation. This coincides with the empirical findings of this dissertation. In fact, an American trade deficit with a target is the single most important variable leading to a full American bargaining success (See Table 12). For the entire period of the data set, trade balances between Japan and the United States were highly skewed in favor of the former. This serves as a good explanation why Japan attracted the attention of the Office of the USTR and that many actions were taken by this office against Japan. More importantly, the American trade deficit served as a leitmotiv for its official when trying to redress a situation they considered as unfair trading by the Japanese. This was the best argument Americans could use during a bargaining session with Japan and it serves as the best indicator of the high level of success they have achieved.

According to the structure of negotiation between Japan and the United States described above, it is safe to say that the level of success achieved by USTR officials is commensurate with the bargaining leverage they had. The argument is not that there was *prima facie* evidences of unfair trade practices on the part of the Japanese, but that Tokyo's trade surplus with the United States was by itself enough to warrant all the attention it received from American trade officials. Other variables affecting the

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<sup>115</sup> We must be careful with this interpretation. A lot of institutional constraint in Japan comes from within the ruling party. As constructed, the institutional constraint variable does not account for intra-party dissension.

structure of negotiation also tend to favor American's bargaining strength, such that it is not surprising that the empirical results show that the Office of the USTR had its best "success stories" when resorting to Section (Super) 301 against Japan.

- Asian/Pacific Bloc

At the beginning of the chapter it was noticed that the United States had the highest level of success when using Section (Super) 301 against Asian countries. They have especially a high success rate when confronted with Japan, Taiwan, and Korea (See Table 4). The answer to this phenomenon can be found in the negotiation structure affecting bargaining leverages. The case of Japan was addressed above and I now turn to the discussion of other Asian/Pacific targets<sup>116</sup>.

Table 17 shows that overall, the United States derives a bargaining advantage from its structure of negotiation with the Asian/Pacific bloc. However, its overall level of success does not correspond directly to its bargaining leverage. One should not jump to any conclusions though before we inspect the data and results carefully. Particularly, close attention must be paid to the results obtained with rapidly industrializing Asian countries (Taiwan and Korea) during the period of the study. These two countries alone constitute 56% of the cases involving the Asian/Pacific bloc. It can be suspected that the negotiation structure between these two countries and the United States is very similar to that between Washington and Tokyo. Consequently, it is expected that the resulting bargaining success for American negotiators will be identical in both instances. The

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<sup>116</sup> Because of the specificity of results implicating Asian/Pacific targets, the discussion of these results are separated from the discussion of other residual targets.

success rate should drop dramatically for other Asian/Pacific targets (China, India, Thailand).

In all cases involving the Asian/Pacific bloc the structure of trade dependence suggests a bargaining edge for the targets of Section (Super) 301. Results differ for the type of issues being negotiated. For Korea and Taiwan, there is an equal split between cases involving tariffs and quota, and other issues. No clear bargaining advantages are evident. For other Asian/Pacific targets, only 30% of issues are related to tariffs and quotas. This indicates a bargaining advantage for those targets. For the institutional constraint variables, results go in the same direction. Taiwan and Korea are not highly institutionally constrained, which gives a bargaining advantage to the United States. As for other Asian/Pacific targets only India is considered as institutionally constrained (5 cases), while it is not the case for China and Thailand<sup>117</sup>. Hence, there is no clear bargaining advantage. Once again, similar results are obtained for the value of the contested goods. In roughly 50% of the cases involving Korea and Taiwan, the value exceeds 100 million dollars, while the figure is 80% when it implicates China, Thailand or India. In the first instance there was no clear bargaining advantage, while in the second instance, it confers an important advantage to the targets. The starkest difference is in regards to trade balances between the United States and these targets. On average, Washington's trade balance with the Asian/Pacific bloc is -4.515 billion dollars. If we dig a little deeper into the data, we find out that the mean deficit swells to -7.019 billion dollars with Korea and Taiwan, while it falls to only -1.206 with the other countries.

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<sup>117</sup> This could be only coincidental, but this could explain why the United States has a slightly lower success rate with India (0.6) than it has with China and Thailand (1).

Hence, the trade balance factor confers to the United States a very consequential bargaining leverage against Korea and Taiwan, and no real advantage against China, Thailand, and India.

In summation, the type of issue being negotiated and its value do not confer any bargaining advantage to either side, while there is a slight advantage conferred by the trade interdependence variable to Korea and Taiwan. However, the most important variables, institutional constraint and trade balance, confer to the United States a very significant bargaining advantage. Overall, we can conclude that the Office of the USTR is in the driver's seat when the resort to Section (Super) 301 against Korea and Taiwan. This is in accordance with the bargaining success obtained against these targets (1.92). These results are very similar to the discoveries regarding the relationship between Japan and the United States.

There exists an important reversal of the situation when the targets are China, Thailand, and India. Two factors give either a slight advantage to the United States or unveils a symmetrical relationship: trade balance (slight advantage) and institutional constraint (symmetry). Other factors demonstrate a favorable bargaining advantage to the targets: trade interdependence (slight advantage), type of issue (significant advantage), and value of the contested goods and services (significant advantage). Overall, the structure of negotiation plays against the United States. The empirical results demonstrate that its disadvantageous bargaining leverage lead to poor bargaining successes for the United States: on average the bargaining success score for the Office of the USTR when using Section (Super) 301 against China, Thailand, or India is a dismal .8. This is, on average, even worse than a nominal success.

- Other Targets

To complete the discussion of structure of negotiation between the United States and different targets, I now turn to cases not already covered. The "residual" cases involve Brazil (5 cases), Argentina (5 cases), Guatemala (1 case), Norway (1 case), the Soviet Union (1 case), Portugal (1 case), and Spain (1 case). The overall structure of negotiation with these targets and the level of success obtained by American trade officials are very similar to the findings that were uncovered when discussing the results obtained in regards to the European Union. There exists a slight advantage for the targets when we consider factors such as trade interdependence and type of disputed issues, while there is no clear advantage in terms of trade balance<sup>118</sup>. Two factors, institutional constraint and value of contested goods and services, grant the United States with additional bargaining resources<sup>119</sup>. An overall estimation of the negotiation structure between the United States and residual targets suggest a symmetrical relationship. The mean score of American success with them is 1.27. As was the case with the European Union, one can advance an assessment indicating that the structure of negotiation, in those instances, corresponds accordingly to the level of American bargaining success when resorting to Section (Super) 301.

The significant variables of the empirical model, an indication of the structure of negotiation, provide a very lucid explanation for the level of American success when

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<sup>118</sup> As for all other non-EC cases, residual targets are more dependent on the United States for their external outputs than the reverse situation; only 6 out of 15 issues are tariffs or quotas related; and, on average, the United States only has a 793 million dollars trade deficit with these targets.

<sup>119</sup> Only four out of fifteen targets are institutionally constrained, while in only six cases the value of contested goods and services surpasses the 100 million dollars mark.



turning to the utilization of Section (Super) 301. In only one instance, that of Canada, is there a discrepancy between the structure of negotiation and bargaining success. This counterfactual evidence may suggest that there exists a certain "special" relationship between the two North American partners, such that an analysis of trade relations between the two countries may fall in a "middle of the road" category, not exactly "international", or "domestic".

In the last few pages, I have highlighted the specific nature of the data set. I started by providing some descriptive analysis, which was followed by the results of an ordered multinomial logit analysis. Then I discussed the results according to different targets. A common core of the demonstration is that most of the variables displaying good empirical results concentrate on the behavior of targets' negotiators or the American domestic society. On this basis, I suggest an alternative model. For the remaining of the dissertation I will refer to the previous model as the "interdependence" model, while I will refer to the model of the next section in terms of the "compliance" model.

### **III. An Alternate Model of Compliance**

I have discussed above the specific nature of the data set used to test the propositions of this dissertation. In the first section of this chapter, I discussed the importance of the trade dependence of targets on the United States as an indicator of the ability demonstrated by American negotiators in reaching their objectives when using policies of reciprocity and retaliation. This may suggest that what matters are not the characteristics of American negotiators, but the characteristics of target nations as well

as the level of support gathered from the American population<sup>120</sup>. Hence, a model focussing on compliance might be superior to a model of interdependence when dealing with Section (Super) 301 trade policy instrument. A similar model of compliance has been tested by Noland (1997).

In a model of compliance, the onus is put on targets' negotiators to react to an American threat. Also, the resolve of American negotiators is influenced by the support they receive from their population. Consequently, I chose to test a model that embodies these two elements. The variables representing the targets "strength" are constituted by their level of institutional constraint (INCONST), the natural log of their net value of exports to the United States (LTEXP), the value of the contested goods and services (DVCGOOD), and the type of issue under contention (ISSUE). The level of societal support for the American bargaining tactics is represented by the trade balance between the United States and target countries (TBAL). Table 18 portrays an ordered multinomial analysis of the model, while Table 19 shows the marginal impact of the regressors<sup>121</sup>.

The model in its entirety indicates some very good results. Three variables (LTEXP, DVCGOOD, and TBAL) are significant at the .1 level, while two others (INCONST and ISSUE) are significant at the .05 level. According to Table 18, all

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<sup>120</sup> Even though the results of the first section of this chapter indicate that there is no correspondence between the level of US trade output towards a target and American bargaining success, the compliance hypothesis should be tested in both directions. In other words, another model should concentrate on the exclusive characteristics of the United States (E.g., American institutional constraint, export to target...). This task is left for future research.

<sup>121</sup> I provide a more cursory discussion of the alternate model. I only point out to its main empirical results and I indicate some comparisons between the two models.

variables have the hypothesized sign. Forty-five percent of the cases are correctly predicted<sup>122</sup>. Table 19 demonstrates that all variables that were also included in the interdependence model have less of an individual bearing on the dependent variable than they had in the previous model. Due to the "strength" of other variables in the compliance model, an individual variable does not have the same impact on the dependent variable that it had in the interdependence model, where some variables had almost no bearing on the American level of success.

As stated previously, a high level of domestic institutional constraint (INSCONST) is an added source of bargaining leverage in an international trade and investment negotiation. Thus, a high level of domestic institutional constraint in the target has a negative impact on the bargaining fortune of American negotiators. That is what is shown in Table 18: the coefficient of the variable is negative and is significant at the .05 level ( $P > |z| = .037$ ). Table 18 indicates that the variable has its most profound impact on the predicted probability of nominal success ( $Pr=1$ ) when INSCONST is at its maximum value, with a marginal influence of .132. This is tantamount to the results obtained in the interdependence model. All this indicates that the level of domestic

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<sup>122</sup> If we compare the two models, we see that there is a trade-off between a model's overall significance and the cases it can predict correctly. The interdependence model includes some variables that were not significant, but could predict 55% of the cases correctly. All the variables of the compliance model are highly significant, but it can only predict 45% of the cases correctly. The difference comes from the number of variables included in those models. When we increase the number of variables (even if they are not significant), especially dummy variables, we increase the "fit" between the predicted and coded scores. Consequently, this increases the CPP. For instance, I tested a "pot luck" model which included all tangible variables. The CCP went up to 66%, but many variables were not significant and this increase in the CCP comes at the expense of the loss of many degrees of freedom. Thus, in a model selection exercise, one must often walk on a tightrope in order to find the adequate balance between significance and accurate predictions.

institutional constraint is a major predictor of the level of bargaining success attained by American negotiators in the compliance model.

Another salient proposition of the compliance model is that targets are more likely to be swayed by an American menace when the issue debated involves a tariff or a quota. The outcome of the ordered multinomial analysis, in Table 18, confirms the proposition. The coefficient of the variable ISSUE is negative and ISSUE is significant at the .005 level ( $P > |z| = .002$ ). Table 19 demonstrates that the impact of the variable is especially significant on the predicted probability of nominal success ( $Pr=1$ ), with marginal impacts of .106 and -.127 when ISSUE is at its minimum and maximum values respectively. However, the most meaningful impact is on the predicted probability of full success ( $Pr=3$ ) when the variable is at its maximum, with a marginal consequence of .173. All this not only indicates that the variable is a momentous component of the compliance model, but also that it is one of the best indicators of a full negotiating success for Washington. These results are comparable to the findings of the interdependence model.

TABLE 18

Compliance Model: Empirical Estimates<sup>123</sup>

Number of obs.: 75  
 chi<sup>2</sup>(10): 30.40  
 Prob > chi<sup>2</sup>: .0000  
 Pseudo R<sup>2</sup>: .1564

Log Likelihood: -81.993425  
 CCP<sup>124</sup>: 45%

| Success  | Coef.   | Std. err. | z      | P >  z |
|----------|---------|-----------|--------|--------|
| INSCONST | -1.2012 | .5766     | -2.083 | 0.037  |
| LTEXP    | .2995   | .1786     | 1.677  | 0.093  |
| DVCGOOD  | -.7707  | .4533     | -1.7   | 0.089  |
| ISSUE    | 1.478   | .4796     | 3.081  | 0.002  |
| TBAL     | -.0341  | .0204     | -1.671 | 0.095  |
| _cut1    | -1.3708 | .5784     |        |        |
| _cut2    | .9746   | .543      |        |        |
| _cut3    | 3.2829  | .6857     |        |        |

<sup>123</sup> I have tested the same model with a binomial threshold model and the results of this ordered multinomial logit analysis are much more conclusive. Appendix F presents the logit analyses. The appendix also comports an ordered multinomial logit analysis with three categories. In the latter, the two middle categories are collapsed.

<sup>124</sup> Appendix E indicates how the percentage of cases correctly predicted was obtained.

TABLE 19

## Compliance Model: Marginal Impacts of the Regressors

| Variable        | Pr (0)       | Pr (1)       | Pr (2)       | Pr (3)       |
|-----------------|--------------|--------------|--------------|--------------|
| All             | .039         | .259         | .512         | .19          |
| THREAT (Min.)   | .068 (.029)  | .365 (.106)  | .451 (-.061) | .115 (-.075) |
| THREAT (Max.)   | .016 (-.023) | .132 (-.127) | .489 (-.023) | .363 (.173)  |
| INSCONST (Min.) | .025 (-.014) | .185 (-.074) | .518 (.006)  | .272 (.082)  |
| INSCONST (Max.) | .078 (.039)  | .391 (.132)  | .429 (-.083) | .101 (-.089) |
| DVCGOOD (Min.)  | .026 (-.013) | .201 (-.058) | .52 (.008)   | .252 (.062)  |
| DVCGOOD (Max.)  | .058 (.028)  | .332 (.073)  | .475 (-.037) | .135 (-.055) |
| TBAL (Min.)     | .009 (-.03)  | .075 (-.184) | .395 (-.117) | .522 (.332)  |
| TBAL (Max.)     | .073 (.043)  | .379 (.12)   | .441 (-.071) | .108 (-.082) |
| LTEXP (Min.)    | .128 (.089)  | .477 (.218)  | .334 (-.178) | .061 (-.129) |
| LTEXP (Max.)    | .022 (-.017) | .173 (-.086) | .514 (.002)  | .291 (.101)  |

<sup>a</sup> Values between parentheses are marginal differences from the mean.

If the type of issue has a positive impact on the faith of the American negotiation team, its value has the opposite repercussion. The results shown in Tables 18 and 18 are evidence that the higher the dollar amount associated with the dispute, the less successful are the Americans in getting a target to comply. The coefficient of DVCGOOD is negative and highly significant ( $P > |z| = .089$ ). However, as was the case in the interdependence model, it does not seem to have any particularly important impact on the different predicted probabilities of the dependent variable, even though it has some bearing on the predicted probabilities of nominal success ( $Pr=1$ ) and full success ( $Pr=3$ ). Albeit not as portentous as other variables, the value of disputed goods and services is still a notable element of the compliance model.

A variable that did not appear in the interdependence model is the natural log of targets' net value of exports to the United States (LTEXP). The argument behind the inclusion of this variable is that American negotiators will achieve a higher degree of success if a target is facing the prospect of putting a sizable portion of its economic strength in jeopardy if its trade relation with the United States deteriorates. Hence, the coefficient of LTEXP is expected to be positive: the larger amount of exports from the target to the United States is, the more bargaining power for Washington. Indeed, the coefficient is not only positive, but the variable is also significant at the .1 level (see Table 18). Table 19 indicates that the marginal impact of the value of exports on the dependent variable is especially prominent when LTEXP is at its minimum: it has a marginal impact of .218, -.178, and -.129 on the predicted probabilities of nominal success ( $Pr=1$ ), partial success ( $Pr=2$ ), and full success ( $Pr=3$ ) respectively. A graphical representation of the phenomenon is exposed in Figure 18. It reveals very

clearly that as targets' exports augment, predicted probabilities of failure and nominal success take a plunge. Even though predicted probabilities of partial success levels off with large values of exports, the inverse relationship is observed for predicted probabilities of nominal success and full success. These evidences suggest that the net value of a target's exports to the United States is a notable predictor of the ability of American negotiators to get the other side to comply with their requests.

A substantive analysis of these results reveals a surprising role for the variable in explaining American bargaining success. The findings indicate that it would be fallacious to believe that the United States derives its most important bargaining advantage when a target is highly dependent on Washington for its trade output. It is true that the results go in this hypothesized direction, **but it is the absence of a target's trade dependency that has the most profound impact on American bargaining success.** The variable has a very salient negative impact on American bargaining success, when a target is not highly dependent on the United States for its external output. Hence, it is not trade dependence, but the lack of trade dependence that has the largest impact on bargaining success. Also, even though trade dependence has a considerable impact on the level of bargaining success, it is not the most important indicator of success, as suggested by Noland (1997: 382). The palm goes to trade balance in my study.

The team of negotiators representing a target country (or group or countries) should feel less compelled to obey the demands of Washington if they already have a trade deficit with the Americans. But more importantly, the American civil society will ask for a tougher stance from their negotiators if the United States has a very large trade



deficit with the target. Since a positive value is associated with an American trade surplus, we can expect the coefficient of TBAL to be negative. This is what Table 18 demonstrates. It also shows that the variable is significant at the .1 level ( $P > |z| = .095$ ). Among all variables, TBAL has the largest marginal bearing on the predicted probability of success ( $Pr=3$ ), as it was the case in the interdependence model. Indeed, when TBAL is held at its maximal value, it has a tremendous marginal impact of .332 on the ability of American negotiators to get the other side of the negotiating table to comply (see Table 19). Table 19 also indicates that the variable has a sizable implication on the predicted probability of nominal success ( $Pr=1$ ). A graphical representation of the marginal impact of TBAL in Figure 19 demonstrates the trend. The predicted probabilities of failure and nominal success increase as the balance of trade converges towards a surplus for the United States. An inverse relationship is observed for the predicted probability of success. Finally, similar to what occurred in the interdependence model, the predicted probabilities of nominal success follow a convex trajectory. In conclusion, it appears that the balance of trade has a vital impact on the dependent variable in the compliance model.

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Using a data set comprising Washington's use of the Section (Super) 301 policy instrument, this chapter started with some alternate explanations of bargaining wherewithal and resulting outcomes. The main conclusions were that explanations based on structural power, economic power, and dependence were poor predictors of trade bargaining outcomes. It was followed by some descriptive, bivariate, and multivariate analysis of an interdependence model. The main finding is that the most influential

variables affecting international trade bargaining outcomes are trade interdependence, the type of issues involved in a negotiation, targets' institutional constraint, use or threat of retaliation by the United States, the value of the contested goods and services, trade balance between a target and the United States. All significant variables, with the exception of trade interdependence had a coefficient with the hypothesized sign. Variables that were not significant include trade interdependence controlled by GNP, United States' institutional constraint, American's economic misery index, and presidential approval. Nonetheless, the level of American institutional (when coded differently), and the misery index have shown some promising results. The next section looked back at the elements of analysis of the theoretical model and parameters of the formal model. The best correspondence between empirical results and theoretical components of the dissertation is found for the bilateral trade structure, institutional constraint, economic and political necessity elements of analysis, and information and domestic costs for delays parameters. Less compelling findings accompany the theoretical role of interdependence and societal support elements of analysis, and international breakdown cost parameter. The next section showed that the interdependence model provide a good explanation for the perspective of American bargaining success when confronted with different targets. Finally, I introduced an alternate model based on targets' compliance. This model demonstrated very significant results.

The concluding chapter recaps the main findings of the dissertation and links the theory to the empirical results. It also provides a critical appraisal of what has been accomplished in this study and some directions for future research in the field of

international negotiations.

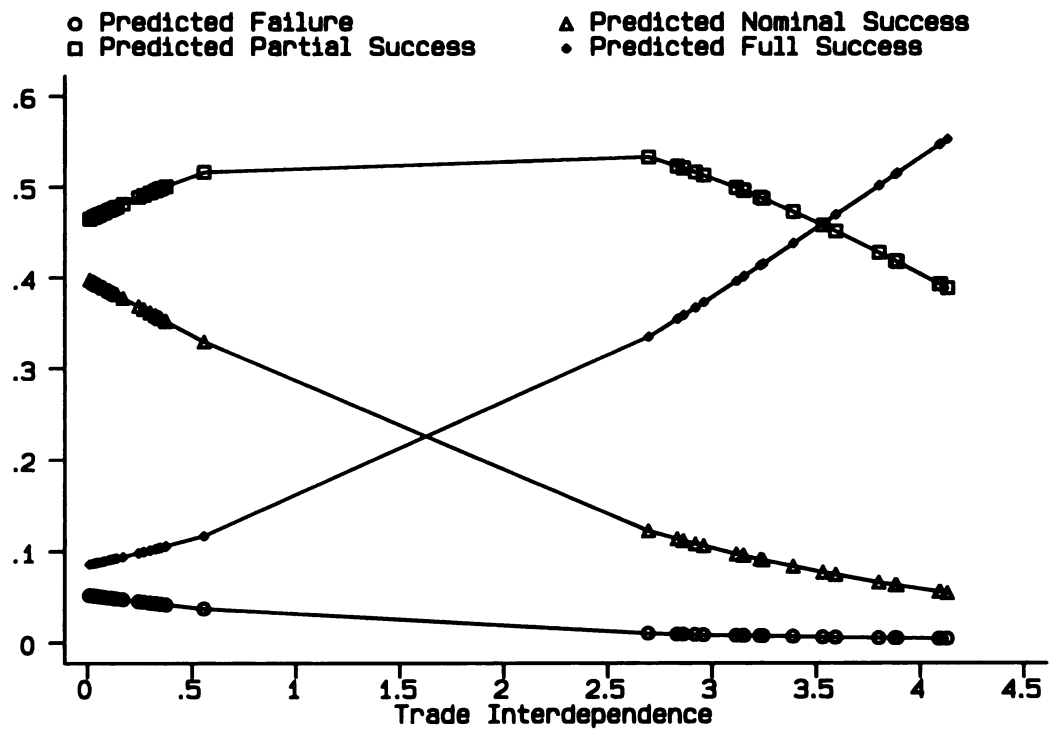


Figure 13: Marginal Impact of Trade Interdependence

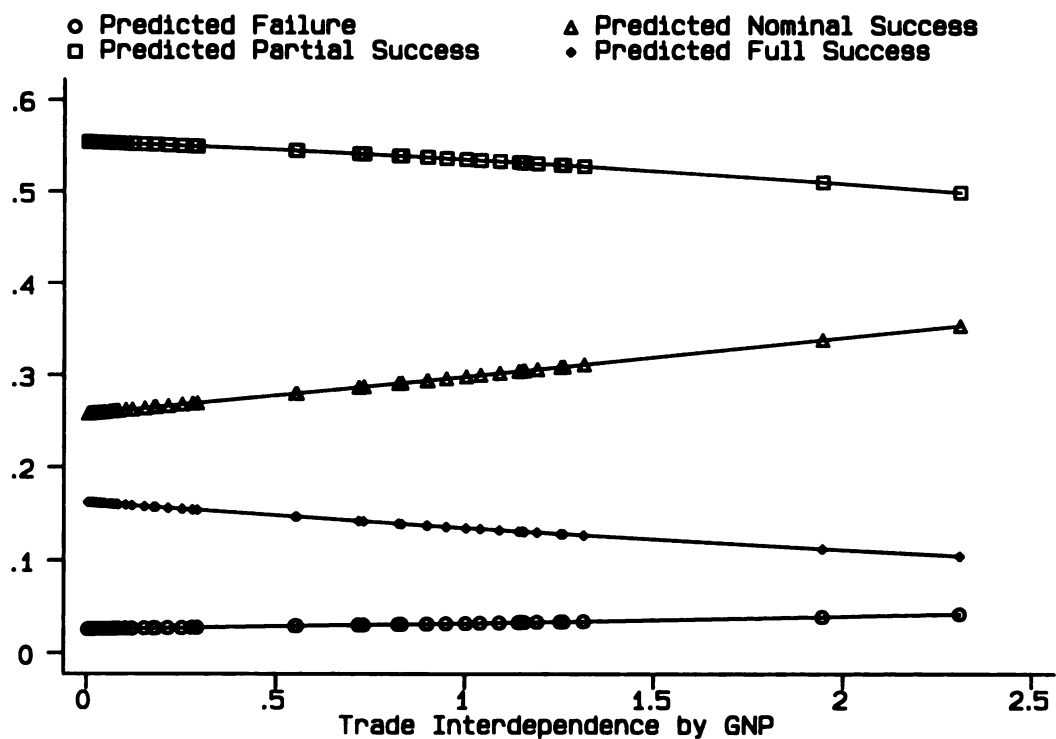


Figure 14: Marginal Impact of Trade Interdependence (By GNP)

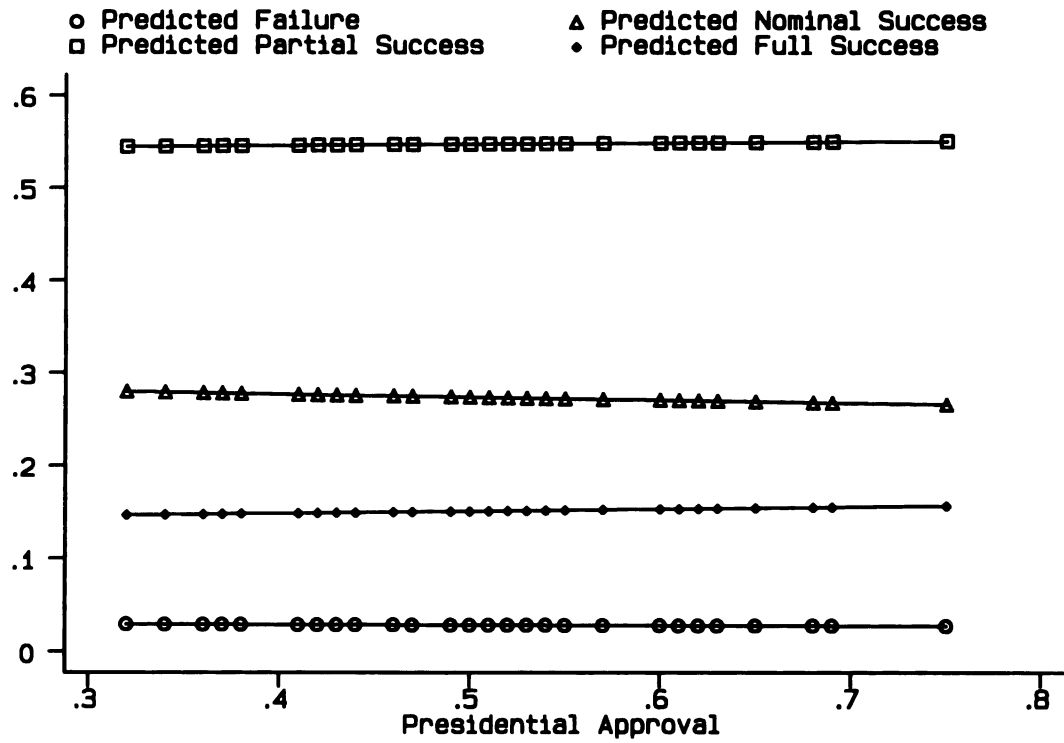


Figure 15: Marginal Impact of Presidential Approval

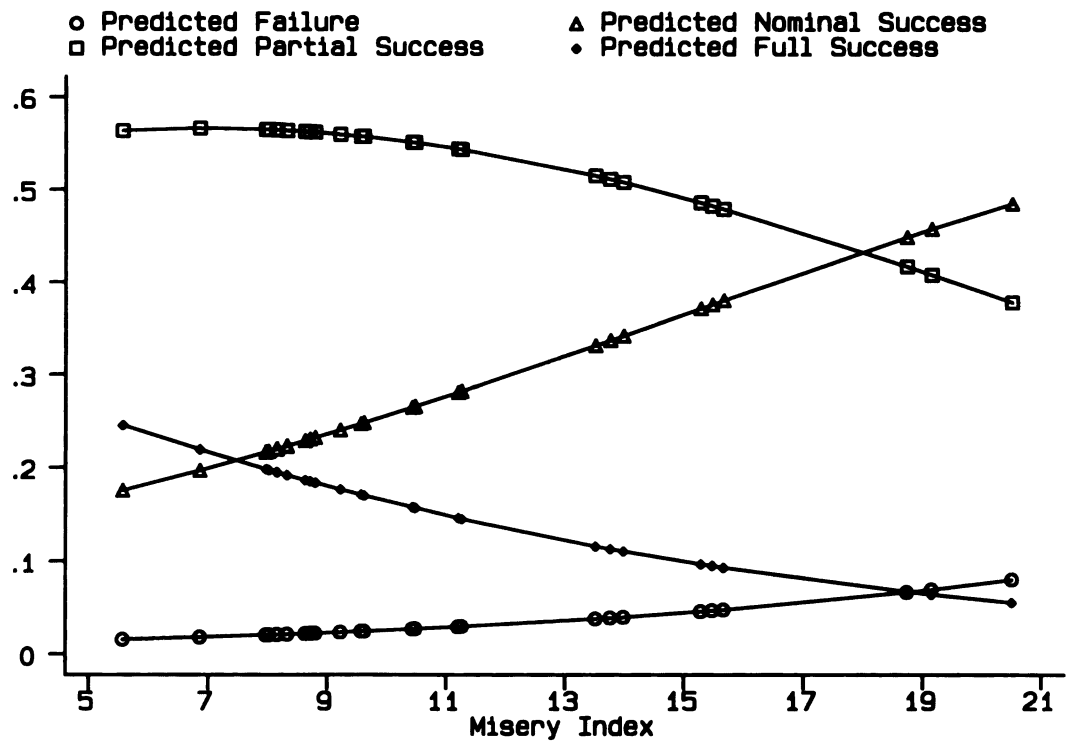


Figure 16: Marginal Impact of Misery Index

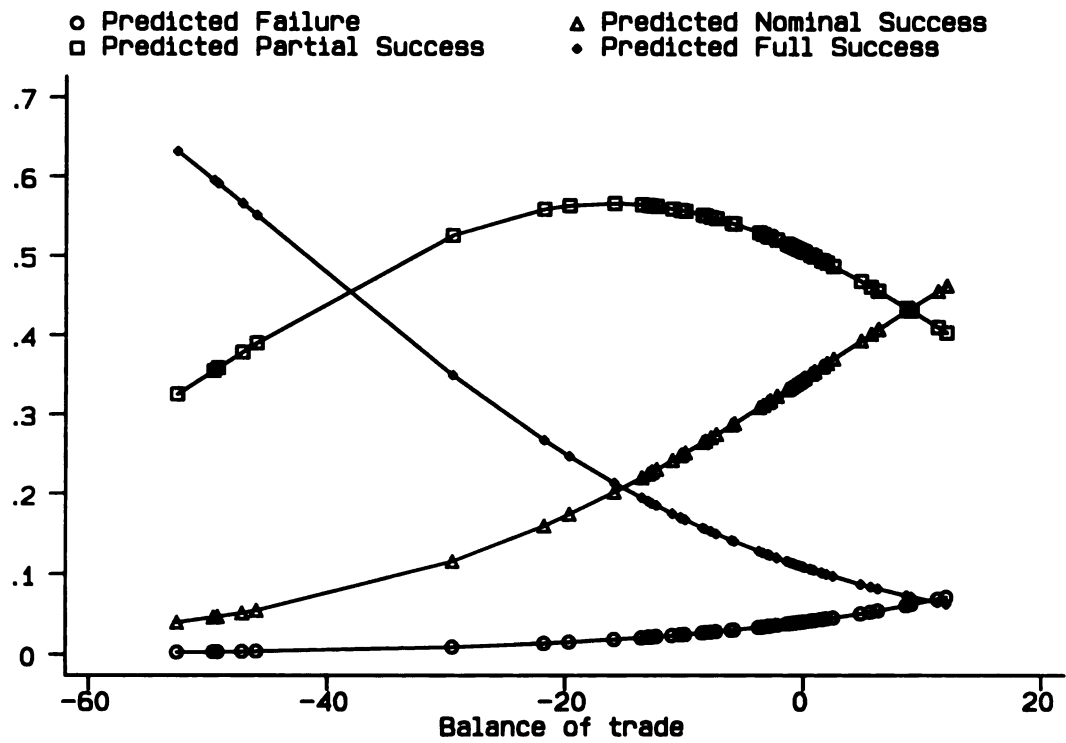


Figure 17: Marginal Impact of Trade Balance (Interdependence Model)



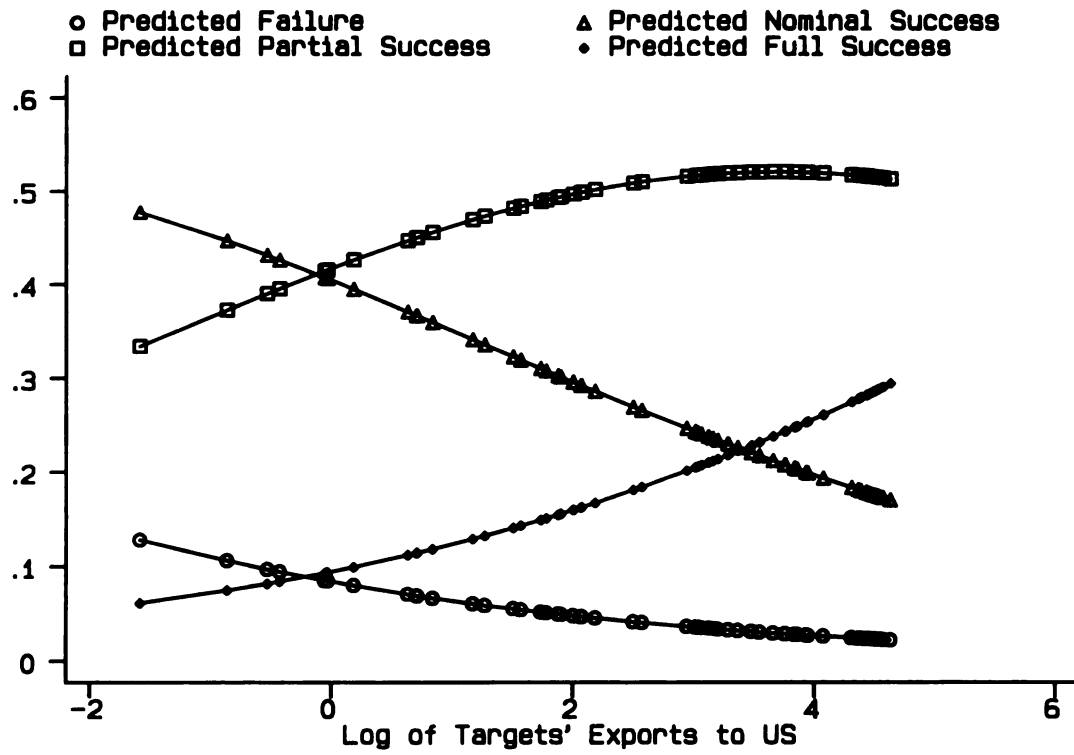


Figure 18: Marginal Impact of Targets' Exports

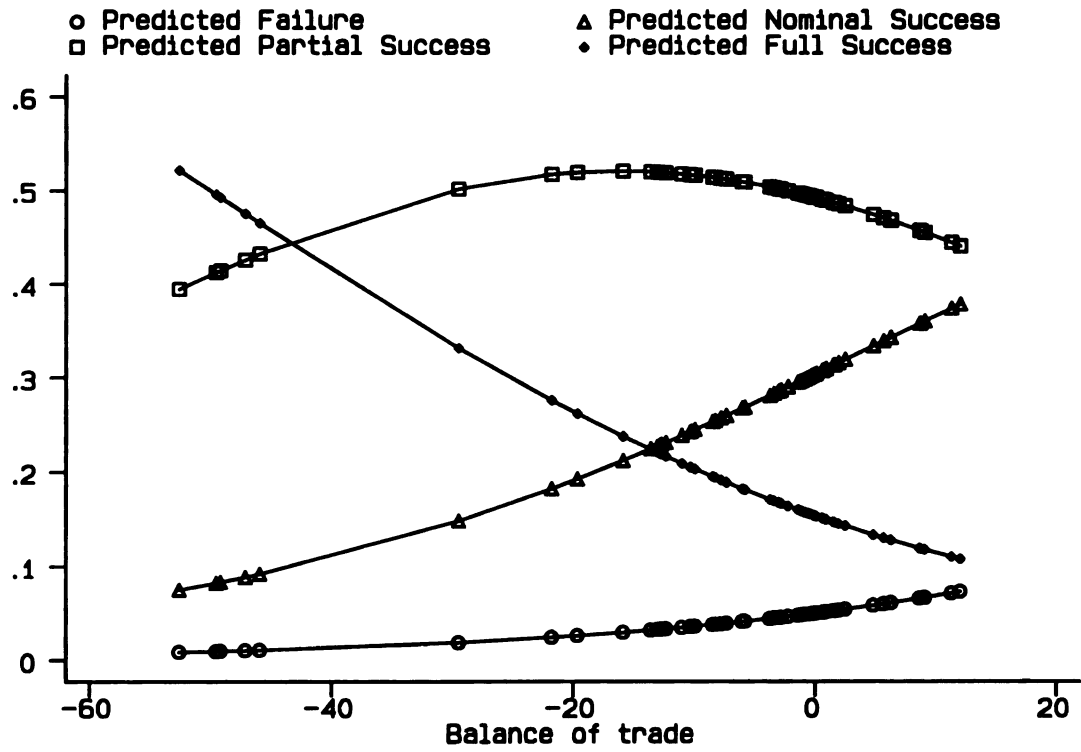


Figure 19: Marginal Impact of Trade Balance (Compliance Model)

## **CHAPTER 6**

### **CONCLUSION**

This dissertation started out with a set of ambitious tasks. It has reached most of its initial objectives, but more work needs to be done if we are to have a better understanding of the underpinnings of international trade and investment negotiations. Let's start with its main accomplishment, before turning to its shortcomings and setting out some avenues for future research.

The main contribution of this dissertation is that it constitutes an innovative attempt at combining a theory of negotiation and bargaining with formal and empirical models. A great number of verbal models of negotiations and bargaining have been proposed. The last two students of international negotiations to do so are Lebow (1996) and Shambaugh IV (1996). While these constitute critical contributions to the uncovering of the nature of negotiation and bargaining, they lack the aura of "scientificity" that is bestowed upon an analysis on a large number of cases. Part of the reasons for writing this dissertation was to provide a synthesis of existing theoretical propositions. But more importantly, it has to be done in such a way that these propositions could be put in relation in a logical fashion and be prone to statistical analysis. This difficult assignment has not been accomplished to my full satisfaction, but I consider that with better resources and more time, the Holy Grail may be in sight.

This dissertation starts out by pointing to the need to delve into general negotiation theory in order to uncover an adequate theory of international trade negotiations. A common core of those theories is that negotiation is time-dependent, based on different type of interests (conflicting, complementary, and common), and based on different levels of information held by negotiators. They also indicate that, in formal language, the negotiation enterprise is not entirely cooperative, nor entirely non-cooperative, but incorporates some elements of both visions of game theory. These elements of analysis constitute the "structure" of negotiation. This structure of negotiation affects the process of bargaining; a "give-and-take" convergence process leading to an agreement. Thus, to study international trade negotiations and bargaining, we need to unveil a specific structure of negotiation and a model to depict the process of bargaining.

My argument is that a theory of international trade negotiations must be build on a structure composed of domestic and international elements of analysis. A theory of international trade negotiations must also look at the domestic/international nexus, while paying attention to the main components of more general negotiation theories. On this basis the theory of international trade negotiations of this dissertation rested on the following pillars: trade interdependence, bilateral trade structure and threat credibility, domestic institutional constraint, political and economic necessity, and societal support. These elements of analysis constitute the structure of international trade negotiations affecting the process of international trade bargaining.

The logical underpinnings of the process of bargaining have been unveiled with great amount of success by many economists, mainly during the 1980s. Unfortunately,

the reader of these stylistic representations often gets lost in the technical details and has a feeling that the connection with the real world is lost. These might be profane criticisms uttered by many naysayers of formal approaches, but game theorists, must attempt to generate some logical constructions that appeal by their simplicity to the rest of the academic community. I am not the best judge of my performance in this regard, but this issue was on my mind when I tried to convey the basic structure of the Ståhl-Rubinstein bargaining model, as well as indicating how it could be related to real world situations. More specifically, the bargaining model used in this dissertation builds on three fundamental parameters: international breakdown costs, information, and domestic costs associated with delays. Each of these parameters are logical, formal, representations or approximations of the elements of analysis of a general negotiation theory. These parameters also parallel the elements of analysis of the specific theory of international trade negotiations.

Attempts to provide a statistical analysis of international trade negotiations constitute a very recent adventure. It is not that there are no studies of trade flows or any empirical international political economy studies. Inquiries of this sort have focused on trade sanctions (Hufbauer, Schott, and Elliott, 1990), economic risk and protectionism (Bennett Quiñones and Gates, 1995), and tariffs and partisan politics (Epstein and O'Halloran, 1996) to name a few. Empirical tests to determine the nature of negotiations outcome are a much rarer breed. The difficulty stems from the fact that we do not have large data-gathering projects on international trade negotiations such as those developed for the study of the causes of war. The closest we come to having such a data set stems from the commendable effort by Bayard and Elliot (1994), who have collected data on

the American use of Section (Super) 301. I have attempted to push the barriers of our empirical knowledge on the causes of trade bargaining success a little further through this dissertation. As such, I have relied heavily on data provided in Bayard and Elliot study, but I have also proceeded into a data collection project that goes beyond what they have already used. Nevertheless, more effort needs to be done before students of negotiations and bargaining can count on a data set including most of the variables needed to test a more fully developed model of international trade negotiations.

Building on Bayard and Elliot's (1994) data set I enumerated a series of propositions and hypotheses connected to the elements of analysis of the theoretical model of negotiations and the parameters of the formal of bargaining process. The results of my empirical analysis demonstrate that domestic and international factors are all important aspects of a model explaining the outcomes of international trade and investment negotiations. These show that our analyses must go beyond issues of power, be it structural or economic, and interdependence to fully account for such international encounters. More specifically, trade interdependence (even though not in the hypothesized direction), the level of institutional opposition, the type of issue being negotiated, the use of or threat of retaliation, the value of the contested goods and services, and trade balance, were all significant and important variables. This adds to the linkages between domestic and international levels of analysis propositions.

In regards to the dimensions of the theoretical model and the parameters of the formal model, it appears that none of them had a more salient than others. It is a combination of all dimensions and their effects on the parameters that better represents the nature of an international trade and investment negotiation. Indeed, most variables

demonstrated good results and all dimensions and parameters were represented by these variables in the empirical models.

When we study the performance of American negotiators vis-à-vis different targets we find out that it is commensurate with the bargaining leverage imparted to them by the negotiation structure. Canada constitutes an anomalous case. The structure of negotiation between the United States and its neighbor is highly advantageous to Washington, but its trade representatives do not seem able to translate this bargaining edge into correlated successful outcomes. This may be a good indication of a "special" trade relationship between the two adjoining countries.

The analysis yields other surprising results. The most puzzling finding is that American trade officials gain more from trade dependence on a target rather than the other way around. This outcome is in sharp contrast with the hypothesized role that was attributed to the variable. An explanation for this phenomenon could be the role played by an intervening variable, that is, negotiator's resolve. Just as the case of a negative trade balance with a target, American negotiators may derive an increased level of unyielding strength from trade dependency. Under such circumstances, they become "tough" negotiators and adopt a "take it or leave" type of strategy, which often yields full successes or failures. The chances of getting partial or nominal successes are greatly diminished. Even though, this is what reveals the statistical analysis, until we find an adequate way to measure "negotiator's resolve", we can only speculate on its mediating role between trade dependence (and/or trade balance) and bargaining success.

Another interesting result is that the level of targets' exports to the United States influences positively the United States' bargaining success, while its own level of exports

to the targets does not affect negatively its bargaining fortune. On this basis, I tested an alternate model based on targets' compliance to American demands. The results indicate that all variables included in a compliance model are significant, but that each variable, individually, has less of an impact on American bargaining success and it does not predict accurately as many cases as the main model of the dissertation.

Despite its accomplishments, this dissertation has its weaknesses. Allow me to mention a few of them, with some elements of solution for future research:

**1- Negotiators' performance and type:** An important aspect of negotiation not accounted for in my theoretical model is negotiators' effectiveness. This idiosyncratic feature is often a leading variable in the explanation of any type of negotiation. The results of the ordered multinomial logit analysis point to the fact that negotiators' resolve might constitute an important mediating variable between trade dependence and/or trade balance and bargaining success. A formal model can include a parameter accounting for a negotiator's level of risk-attitude. We can observe logically the effect of this parameter, but the difficulty is in assessing *a priori* a special type of risk perception to a negotiator in a specific case of negotiation. Thus, I did not include this very important variable in my model for the simple reason that I was not able to find a way to go from a logical representation of its impact on an outcome of trade negotiation to a variable (or a set of variables) amenable to statistical analysis. As for a solution to the problem, a first step would be to include a parameter of risk attitude in the formal model, and do more reading and thinking to see if there are some empirical representations of this parameter.



**2- Comparative statics:** It would have been interesting to have done some comparative statics analysis of the formal model and to have compared the results with the outcomes of the empirical model. For the sake of simplicity, I have decided to let the statistical results speak for themselves. Nevertheless, I intend to do some comparative statics in the near future and to compare the results with the statistical outcome of this dissertation. This comparison could be done by using some instrumental variables representing the parameters of the formal model and test their levels of statistical significance.

**3- Case studies:** Even though I have mentioned a previous study (Duchesne and Clark, 1995) applying some aspects of the formal model to the Canada-United States Free Trade Agreement (CUSFTA), more detailed analyses of the general model might be needed<sup>125</sup>. Not only would it provide an added test of the propositions of the model, but it could also uncover some elements of analysis that are not apparent in a statistical or formal analysis. Two special cases, especially, need to be addressed, given the empirical results of the dissertation: 1) The "special" relationship existing between Canada and the United States; 2) The high level of bargaining success attained by American negotiators vis-à-vis industrialized Asian countries.

**4- Trade interdependence:** Another way to measure for trade dependence or interdependence is to consider the concentration of production and consumption of the specific goods and services under contention. This would add another level of

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<sup>125</sup> See also Cameron (1996) for an application of the Ståhl-Rubinstein model to the North American Free Trade Agreement.

verification for the proposition. It has the advantage of being very specific to each case. This, in fact, also constitutes the main problem. It takes a time-consuming effort to collect this type of data for each case. It is, however, a task that has to be tackled at some point, because I suspect it to be the most important aspect of the interdependence proposition.

**5- Institutional constraint and Societal Support:** Even though the results obtained by the test of the institutional propositions were conclusive, I believe that Hagan's (1993) method of analysis of domestic opposition is a better, more detailed, representation of the domestic forces (see Figure 7)<sup>126</sup>. The rewards associated with this important data collection project might well be worth the effort. A similar effort could also be extended to test the societal support dimension according to Figure 9. Presidential approval is not significant in this study's statistical analysis, but other variables more specific to trade relations, such a industry concentration, could be tested for their significance. Once, again, this demands a data collection project that is more specific to each case.

**6- Nature of the data set:** What is one of the major strong points of the dissertation may also constitute its main weakness. The nature of the data set leads to unforeseen conclusions. Indeed, by using a data set based on the use of Section (Super) 301 by Americans, I was led to believe that issues of compliance were more important than issues of interdependence. Thus, I have proposed and tested a new model accounting for

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<sup>126</sup> It could be especially the case with Japan, where the highest level of institutional constraint may come from within the ruling party.

this discovery. Nevertheless, due to this data set, I was not able to test directly and adequately some propositions of the theoretical model. This points to the need for a data set specifically constructed to evaluate outcomes of international trade and investment negotiations. Such a data set would take into account the difference between cases including an explicit threat of retaliation, such as the use of Section (Super) 301, and more conciliatory episodes of negotiations, such as NAFTA or MERCOSUR. Special attention should be paid to better empirical definition of an outcome of trade negotiation. Until then, we might still be in the dark ages of trade and investment negotiation and bargaining theories.

**7- Data collection project:** The time is now ripe for a large data gathering project, such as those we find for the study of war. With a small data set such as this one, it is difficult to make any authoritative comments about the impact of individual variables, especially when testing the level of success for American negotiators according to different targets. Moreover, a standardized data set would help us test different, and often contradictory, models and hypotheses. Also, with a larger data set, our analysis could go beyond the study of American trade policies. Our future analyses must be comparative in nature. Only then will we be able to make more discernable comments about the impact of structural and economic power, trade dependence, compliance, and reciprocity on bargaining leverages and outcomes.

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It is only recently that international relations students have turned their attention to international trade negotiation and bargaining. It is therefore not surprising that we did

not go a long way towards developing statistical analyses of this very important aspect of nations-states' interactions. With the end of the Cold War, and the dawn of a new era, the study of international relations and, especially, international trade politics cannot be complete without a better understanding of this "give-and-take" international strategy played by our leaders; a strategy that, increasingly, affects our everyday life. This endeavor will not be accomplished before we have the adequate tools, that is a larger data set, and a common understanding that outcomes of international trade negotiations have as much of an impact, if not more, than well-publicized security agreements on the future of international interactions and domestic politics.

## APPENDICES

## **APPENDIX A**

### **Theoretical propositions**

#### **I. International Dimension of Negotiation**

##### **A) Interdependence**

- P1** In a bilateral trade and investment negotiation, a nation-state that is less dependent on another state for its commercial exchanges has more bargaining power than the second nation-state.

##### **B) Trade complementarity**

- P2A** When the nature of the trade relationship between two countries is complementary, an international trade and investment agreement is more likely to occur.
- P2B** A threat of trade retaliation is more credible when the targeted product is also produced in the targeting country and/or can be imported from a third country.

#### **II. Domestic Dimension of Negotiation**

##### **A) Institutional constraint**

- P3** The higher the institutional domestic constraint faced by negotiators, the higher their bargaining leverage in an bilateral international trade and investment negotiation.

##### **B) Political necessity**

- P4** In a bilateral international trade and investment negotiation, the greater the necessity for an agreement for one party, the less its bargaining leverage.

##### **C) Domestic support**

- P5** In a bilateral international trade and investment negotiation, the greater the societal support for negotiators, the greater their bargaining leverage.

### III. Parameters of Bargaining Process

#### A) Negotiation breakdown costs

- P6 In a bilateral international trade and investment negotiation, the greater the cost of negotiation breakdown for negotiator, the smaller their bargaining leverage.

#### B) Domestic costs for delays

- P7 In a bilateral international trade and investment negotiation, the higher the domestic cost of delay for negotiators (or lower their discount factor), the less bargaining leverage they have.

#### C) Information

- P8 In a bilateral international trade and investment negotiation, the more information negotiators have about domestic costs of the other party (or its "strength"), the more bargaining leverage they have.

### III. Relationship Between Structure of Negotiation and Bargaining Process

#### A) Dependence and breakdown costs

- P9 In a bilateral international trade and investment negotiation, negotiator who represent a country that is highly dependent on the other negotiating country for its supply of international goods have higher costs for a breakdown in the negotiations.

#### B) Complementarity of trade and breakdown costs

- P10A In a bilateral international trade and investment negotiation, a high complementarity of trade leads to high international breakdown costs.
- P10B In a bilateral international trade and investment negotiation with a high complementarity, an agreement is likely to occur.

#### C) Institutional constraint and information

- P11 In a bilateral international trade and investment negotiation, the more domestic institutional constraint negotiators are faced with, the less information about their type they convey to other negotiators.

D) Political necessity and costs for delays

- P12 In a bilateral international trade and investment negotiation, negotiators who have great political need for an agreement face important domestic costs for delays in the negotiations.

E) Societal support and costs for delays.

- P13 In a bilateral international trade and investment negotiation, the greater negotiators' societal support is, the less domestic costs for delays in the negotiations they are faced with.



## APPENDIX B

### Description of Variables

#### I. Dependent Variable

The dependent variable is the level of success for the American negotiators when they opt to use Section (Super) 301. It is divided in four ordered categories as coded by Bayard and Elliot (1994):

|                                      |                                                                                            |
|--------------------------------------|--------------------------------------------------------------------------------------------|
| <b>Failures</b> (coded as 0):        | The case was not implemented to US satisfaction, or it was circumvented in some other way. |
| <b>Nominal success</b> (coded as 1): | A case in which an agreement was reached but not implemented to US satisfaction.           |
| <b>Partial success</b> (coded as 2): | A case in which only some of the US objectives were implemented.                           |
| <b>Success</b> (coded as 3):         | A case in which the US objectives were totally or largely implemented.                     |

#### II. Independent variables

##### A) International dimension

##### 1- Interdependence

The first independent variable included in the statistical test represents the trade interdependence between the United States and the target country (or group of countries). It is measured as the ratio of the target's share of the United States' trade output (exports) over the United States' share of the target's trade output (exports). In order to measure this variable (**DEP**) the following variables were created:

|                |                                                            |
|----------------|------------------------------------------------------------|
| <b>USTOUT:</b> | Annual United States' Trade Output (in billions)           |
| <b>TATOUT:</b> | Annual Target's Trade Output (in billions)                 |
| <b>USEXP:</b>  | Annual United States' Exports to Target (in billions)      |
| <b>TEXP:</b>   | Annual Target's Exports to the United States (in billions) |

**TSHOUT:** Target's Share of United States' Trade Output ( $\text{USEXP}/\text{USTOUT} * 100$ ) (%)  
**USHOUT:** United States' Share of Target's Output ( $\text{TEXP}/\text{TATOUT} * 100$ ) (%)  
**DEP:** Ratio of TSHOUT over USHOUT

The second variable used to measure trade interdependence is the ratio of the United States share of its gross national product that is accounted by its exports to the target over the target's share of its gross national product that is accounted by its exports to the United States. In order to measure this variable (**DEPGNP**) the following additional variables were created:

**USGNP:** Annual United States' GNP (in billion)  
**TGNP:** Annual Target's GNP (in billion)  
**USXGNP:** United States' Share of GNP accounted for by Exports to Target ( $\text{USEXP}/\text{USGNP} * 100$ ) (%)  
**TXGNP:** Target's Share of GNP accounted for by Exports to the United States ( $\text{TEXP}/\text{TGNP} * 100$ ) (%)  
**DEPGNP:** Ratio of USXGNP over TXGNP

## 2- Threat credibility

To assess the credibility of a threat issued by the United States when using the instrument, I use Bayard and Elliot's (1994) dummy variable **ISSUE**, which is coded as a 1 if the issue under debate is a tariff and/or a quota, and coded as a 0 otherwise.

## B) Domestic dimension

### 1- Institutional constraint

The first variable is related to the measure of the United States level of institutional constraint. A variable called **DIVIDED** (Lohmann and O'Halloran, 1994) accounts for the level of division among domestic institutions and it is calculated in the

following manner:

TABLE 20

## American Institutional Division

| President | Senate Majority | House Majority | DIVIDED |
|-----------|-----------------|----------------|---------|
| DEM       | DEM             | DEM            | -1      |
| DEM       | REP             | DEM            | 0       |
| DEM       | DEM             | REP            | 0       |
| DEM       | REP             | REP            | 1       |
| REP       | DEM             | DEM            | 1       |
| REP       | DEM             | REP            | 0       |
| REP       | REP             | DEM            | 0       |
| REP       | REP             | REP            | -1      |

A second variable (**INSCONST**) is related to the level of domestic institutional constraint of the target country (or group of countries). It borrows from variables included in the POLITY III project. I used Maoz and Russett (1993) five-point ordinal scale measure of institutional independence of the chief executive (**MONO**), as well as their three-point ordinal scale representing the degree of institutional centralization of the state (**CENT**). For an added score of **MONO** and **CENT** varying from 2 to 4,

**INSCONST** was coded as a 0. For an added value of **MONO** and **CENT** varying from 5 to 8, **INSCONST** was coded as an 1.

## 2- Political necessity

A first variable accounts for an "economic" necessity for an agreement. To measure the United States' need for agreement, I have created a dummy variable (**DVCGOOD**) coded as an 1 if the value of the contested good is 100 million dollars or more, and coded as a 0 otherwise. This makes the distinction between "small" or large cases.

Another measure of economic necessity is a misery index (Keech, 1995: 52-53), calculated by adding the seasonally adjusted American unemployment rate (**UNEMP**) to its inflation rate (**MISERY**). The inflation rate (**INFLAT**) is calculated the following way:

$$\frac{ppi_t - ppi_{t-1}}{ppi_{t-1}} * 100 \quad (1982 - 100)$$

where ppi represents the production price index.

In order to account for political necessity, *per se*, a dummy variable taking a value of 1 is included when American negotiators used a threat of retaliation or a direct retaliation against an international target (**RETAL**) (Bayard and Elliot, 1994:20-21).

## 3- Societal support

A first measure of societal support is the trade balance (**TBAL**) between the

United States and the target (**USEXP - TEXP**).

Another, widely used, measured of societal support is presidential approval (**APPROV**). Ergo, this variable is included in the empirical model.

## **APPENDIX C**

### **List of Hypotheses**

#### **I. International Dimension**

##### **A) Interdependence**

- H1** When a larger share of the United States exports are going to the target country (or group of countries) than the share of the target country's (or group of countries') export going to the United States, the American negotiators are in a weakened bargaining position when they use Section (Super) 301.
- H2:** When a larger share of the United States' gross national product (GNP) is generated by its exports to the target country (or group of countries) than the share of the target country's (or group of countries') gross national product (GNP) generated by its exports to the United States, the American negotiators are in a weakened bargaining position when they use Section (Super) 301.

##### **B) Threat credibility**

- H3:** The American negotiators have more bargaining leverage in their use of Section (Super) 301 when the issue debated is about tariffs and/or quotas than when the issue debated is about intellectual property or technical, environmental and health standards.

#### **II. Domestic Dimension**

##### **A) Institutional constraint**

- H4:** The more divided the United States' government is, the higher rate of success for the American negotiators in their use of Section (Super) 301.
- H5:** The higher the level of institutional constraint for the targeted country, the less bargaining leverage for the American negotiations in their use of Section (Super) 301.

##### **B) Political necessity**

- H6** The use of a threat of retaliation or a direct retaliation in cases involving the use of Section (Super) 301 is an indication of bargaining weakness on their part.

- H7 The higher the value of the contested good or service leading the use of Section (Super) 301, the less bargaining success for the American negotiators.
- H8 A higher misery index (Inflation + Unemployment rate) in the United States leads to less bargaining success for American negotiators when they use Section (Super) 301.

C) Domestic support

- H9 The greater the trade balance deficit for the United States with the targeted country (or group of countries), the more bargaining success for the American negotiators when they use Section (Super) 301.
- H10 The higher the American presidential approval, the more bargaining success for the United States' negotiators when the use Section (Super) 301.

## APPENDIX D

## Data Set

## I. Legend

Casenum: Case number  
 Becase: Bayard and Elliot's case number  
 Period: Time period of the negotiations  
 Target: Country (or group of countries) targeted by the United States  
 Success: Level of success of American negotiators (dependent variable)  
 Issue: Type of contested goods and services  
 Retal: Use of or threat of retaliation by American negotiators  
 Misery: Misery Index  
 Tbal: Trade balance  
 Dvcgood: Value of contested goods and services  
 Depgnp: Trade interdependence controlled by GNP  
 Dep: Trade interdependence  
 Insconst: Target's institutional constraint  
 Divided: American's institutional constraint  
 Approv: Presidential approval  
 Ltexp: Natural log of target's exports to the United States

## II. Data set

TABLE 21

Data Set (Part A)

| Casenum | BECASE | Target    | Period           | Success |
|---------|--------|-----------|------------------|---------|
| 1.      | 1      | Guatemala | 7-1-75/6-29-76   | 1       |
| 2.      | 2      | Canada    | 7-17-75/3-14-76  | 3       |
| 3.      | 3      | EC        | 8-7-75/7-21-80   | 2       |
| 4.      | 4      | EC        | 9-22-75/1-5-79   | 1       |
| 5.      | 5      | EC        | 11-13-75/6-19-80 | 0       |
| 6.      | 6      | EC        | 12-1-75/1-83     | 0       |
| 7.      | 7      | EC        | 3-30-76/6-18-80  | 1       |
| 8.      | 8      | EC        | 3-30-76/1-5-79   | 1       |
| 9.      | 9      | Taiwan    | 3-15-76/12-1-77  | 3       |
| 10.     | 11     | EC        | 10-6-76/8-10-86  | 2       |
| 11.     | 12     | Japan     | 2-14-77/3-3-78   | 3       |
| 12.     | 13     | Japan     | 8-4-77/12-85     | 2       |
| 13.     | 14     | USSR      | 11-10-77/7-12-79 | 1       |
| 14.     | 15     | Canada    | 8-29-78/10-30-84 | 0       |
| 15.     | 16     | EC        | 11-2-78/8-1-80   | 1       |
| 16.     | 17     | Japan     | 3-14-79/1-6-81   | 1       |
| 17.     | 18     | Argentina | 5-25-79/7-25-80  | 1       |
| 18.     | 19     | Japan     | 10-22-79/1-6-81  | 1       |
| 19.     | 20     | Korea     | 11-5-79/12-29-80 | 1       |
| 20.     | 22     | EC        | 8-20-81/6-28-82  | 0       |
| 21.     | 23     | EC        | 9-17-81/12-84    | 1       |
| 22.     | 24     | Argentina | 10-9-81/11-16-82 | 0       |
| 23.     | 25     | EC        | 10-16-81/9-15-87 | 2       |
| 24.     | 26     | EC        | 10-23-81/12-85   | 1       |



(Data set, Part A, continued)

| Casenum | Becase | Target    | Period            | Success |
|---------|--------|-----------|-------------------|---------|
| 25.     | 34     | Canada    | 9-13-82/12-82     | 0       |
| 26.     | 35     | Brazil    | 10-25-82/1985     | 2       |
| 27.     | 36     | Japan     | 10-25-82/12-85    | 2       |
| 28.     | 37     | Korea     | 10-25-82/1985     | 2       |
| 29.     | 40     | Brazil    | 4-16-83/1985      | 2       |
| 30.     | 41     | Portugal  | 4-16-83/1985      | 0       |
| 31.     | 42     | Spain     | 4-16-83/1985      | 0       |
| 32.     | 43     | Taiwan    | 9-29-83/3-22-84   | 2       |
| 33.     | 44     | Argentina | 9-21-83/5-25-89   | 2       |
| 34.     | 45     | Taiwan    | 12-19-83/4-26-84  | 2       |
| 35.     | 48     | Japan     | 6-14-85/6-4-91    | 1       |
| 36.     | 49     | Brazil    | 9-16-85/10-6-89   | 2       |
| 37.     | 50     | Japan     | 9-16-85/10-6-86   | 3       |
| 38.     | 51     | Korea     | 9-16-85/8-14-86   | 3       |
| 39.     | 52     | Korea     | 11-4-85/8-14-86   | 1       |
| 40.     | 53     | Argentina | 4-4-86/12-88      | 2       |
| 41.     | 54     | EC        | 3-31-86/1-30-87   | 3       |
| 42.     | 55     | Canada    | 4-1-86/6-1-90     | 2       |
| 43.     | 56     | Taiwan    | 8-1-86/10-1-86    | 2       |
| 44.     | 57     | Taiwan    | 10-27-86/12-5-86  | 2       |
| 45.     | 59     | India     | 1-6-87/6-8-88     | 2       |
| 46.     | 60     | EC        | 7-14-87/12-88     | 1       |
| 47.     | 61     | Brazil    | 6-11-87/6-27-90   | 1       |
| 48.     | 62     | EC        | 11-25-87/1-1-89   | 0       |
| 49.     | 63     | EC        | 12-16-87/1-31-90  | 1       |
| 50.     | 64     | Korea     | 1-22-88/5-31-88   | 2       |
| 51.     | 65     | Korea     | 2-16-88/4-26-90   | 2       |
| 52.     | 66     | Japan     | 5-6-88/7-5-88     | 3       |
| 53.     | 67     | Korea     | 4-27-88/1-18-89   | 2       |
| 54.     | 68     | Argentina | 8-10-88/9-23-89   | 1       |
| 55.     | 69     | Japan     | 11-21-88/7-31-91  | 2       |
| 56.     | 70     | EC        | 11-14-88/2-26-90  | 3       |
| 57.     | 71     | EC        | 5-8-89/10-1-89    | 2       |
| 58.     | 72     | Thailand  | 4-10-89/11-23-90  | 1       |
| 59.     | 73     | Brazil    | 6-16-89/5-21-90   | 3       |
| 60.     | 74     | Japan     | 6-16-89/6-15-90   | 3       |
| 61.     | 75     | Japan     | 6-16-89/6-15-90   | 2       |
| 62.     | 76     | Japan     | 6-16-89/6-15-90   | 2       |
| 63.     | 77     | India     | 6-16-89/6-14-90   | 0       |
| 64.     | 78     | India     | 6-16-89/6-14-90   | 0       |
| 65.     | 79     | Norway    | 7-11-89/4-26-90   | 1       |
| 66.     | 80     | Canada    | 5-15-90/8-5-93    | 1       |
| 67.     | 81     | EC        | 11-15-90/12-21-90 | 2       |
| 68.     | 82     | Thailand  | 11-15-90/12-20-91 | 1       |
| 69.     | 83     | EC        | 11-28-90/10-93    | 1       |
| 70.     | 84     | Thailand  | 1-30-91/10-92     | 1       |
| 71.     | 85     | India     | 5-26-91/2-26-92   | 1       |
| 72.     | 85     | India     | 5-26-91/2-26-92   | 0       |
| 73.     | 86     | China     | 5-26-91/1-17-92   | 1       |
| 74.     | 88     | China     | 10-10-91/10-92    | 1       |
| 75.     | 89     | Taiwan    | 4-29-92/6-5-92    | 1       |

## Data set (Part B)

| Casenum | ISSUE | RETAL | MISERY | TBAL      |
|---------|-------|-------|--------|-----------|
| 1.      | 1     | 0     | 15.66  | .089      |
| 2.      | 1     | 0     | 19.15  | -.6759987 |
| 3.      | 1     | 0     | 18.73  | 8.615999  |
| 4.      | 1     | 0     | 13.98  | 6.250999  |
| 5.      | 0     | 0     | 18.73  | 8.615999  |
| 6.      | 0     | 1     | 13.76  | 8.671997  |
| 7.      | 1     | 0     | 18.73  | 9.046999  |
| 8.      | 1     | 0     | 13.98  | 6.199001  |
| 9.      | 1     | 0     | 13.51  | 1.456     |
| 10.     | 1     | 1     | 6.86   | 2.473003  |
| 11.     | 0     | 0     | 13.51  | -11.01    |
| 12.     | 1     | 0     | 8.16   | -19.666   |
| 13.     | 0     | 0     | 15.47  | 1.911     |
| 14.     | 0     | 1     | 9.57   | -9.916    |
| 15.     | 0     | 0     | 18.73  | 11.243    |
| 16.     | 0     | 0     | 20.5   | -12.345   |
| 17.     | 0     | 0     | 18.73  | 1.61      |
| 18.     | 0     | 0     | 20.5   | -12.345   |
| 19.     | 0     | 1     | 20.5   | -.0679998 |
| 20.     | 0     | 0     | 15.28  | 11.972    |
| 21.     | 0     | 0     | 9.57   | 4.792999  |
| 22.     | 1     | 1     | 13.76  | .8        |
| 23.     | 0     | 1     | 8.33   | -5.825001 |
| 24.     | 0     | 1     | 8.16   | .5559998  |
| 25.     | 1     | 0     | 11.26  | -12.809   |
| 26.     | 1     | 0     | 8.16   | -2.986    |
| 27.     | 1     | 1     | 8.16   | -29.484   |
| 28.     | 1     | 0     | 8.16   | -3.038    |
| 29.     | 0     | 0     | 8.16   | -3.745    |
| 30.     | 1     | 0     | 8.16   | .536      |
| 31.     | 1     | 0     | 8.16   | .628      |
| 32.     | 0     | 0     | 11.2   | -8.256001 |
| 33.     | 0     | 0     | 9.22   | -.007     |
| 34.     | 0     | 0     | 11.2   | -8.256001 |
| 35.     | 0     | 1     | 9.62   | -49.207   |
| 36.     | 0     | 0     | 10.48  | -3.418    |
| 37.     | 1     | 0     | 5.57   | -49.549   |
| 38.     | 0     | 0     | 6.86   | -6.039    |
| 39.     | 0     | 0     | 6.86   | -6.039    |
| 40.     | 0     | 0     | 7.97   | .0780001  |
| 41.     | 1     | 0     | 5.57   | -21.775   |
| 42.     | 1     | 0     | 10.46  | -13.047   |
| 43.     | 1     | 0     | 5.57   | -13.591   |
| 44.     | 1     | 0     | 5.57   | -13.591   |
| 45.     | 1     | 0     | 8.15   | -.3329999 |
| 46.     | 0     | 0     | 7.97   | -15.89    |
| 47.     | 0     | 1     | 10.46  | -3.413    |
| 48.     | 0     | 1     | 7.97   | -10.329   |
| 49.     | 0     | 1     | 10.48  | -7.357994 |
| 50.     | 1     | 0     | 8.15   | -10.221   |
| 51.     | 0     | 0     | 10.48  | -7.330999 |
| 52.     | 1     | 0     | 8.15   | -52.625   |
| 53.     | 1     | 0     | 7.97   | -8.472    |
| 54.     | 0     | 0     | 10.48  | -.155     |
| 55.     | 0     | 1     | 9.62   | -47.146   |
| 56.     | 1     | 0     | 10.48  | -2.230995 |
| 57.     | 0     | 0     | 10.48  | .8919983  |
| 58.     | 1     | 1     | 10.43  | -1.424    |
| 59.     | 1     | 0     | 10.46  | -2.96     |
| 60.     | 0     | 0     | 10.46  | -45.954   |

(Data set, Part B, continued)

| Casenum | ISSUE | RETAL | MISERY | TBAL      |
|---------|-------|-------|--------|-----------|
| 61.     | 0     | 0     | 10.46  | -45.954   |
| 62.     | 0     | 0     | 10.46  | -45.954   |
| 63.     | 0     | 0     | 10.46  | -1.085    |
| 64.     | 0     | 0     | 10.46  | -1.085    |
| 65.     | 0     | 0     | 10.48  | -.8599999 |
| 66.     | 0     | 1     | 8.32   | -12.705   |
| 67.     | 1     | 0     | 10.43  | 1.558998  |
| 68.     | 0     | 1     | 8.8    | -2.279    |
| 69.     | 0     | 0     | 8.02   | 5.631004  |
| 70.     | 0     | 1     | 8.63   | -2.816    |
| 71.     | 0     | 0     | 8.8    | -1.27     |
| 72.     | 0     | 0     | 8.8    | -1.27     |
| 73.     | 0     | 1     | 8.8    | -.52      |
| 74.     | 1     | 1     | 8.63   | -.52      |
| 75.     | 0     | 0     | 8.71   | -7.801001 |

Data set (Part C)

| Casenum | DVCGOOD | DEPGNP   | DEP      | INSCONST |
|---------|---------|----------|----------|----------|
| 1.      | 0       | .0031838 | .0088909 | 0        |
| 2.      | 0       | .1020394 | .3254443 | 0        |
| 3.      | 0       | 1.260357 | 4.095727 | 1        |
| 4.      | 0       | 1.157693 | 3.878528 | 1        |
| 5.      | 0       | 1.260357 | 4.095727 | 1        |
| 6.      | 1       | 1.1915   | 3.800817 | 1        |
| 7.      | 0       | 1.261664 | 4.12925  | 1        |
| 8.      | 1       | 1.142119 | 3.887769 | 1        |
| 9.      | 0       | .0188603 | .1316274 | 0        |
| 10.     | 0       | .8983911 | 3.243768 | 1        |
| 11.     | 0       | .1760278 | .3493065 | 0        |
| 12.     | 1       | .1819206 | .3384425 | 0        |
| 13.     | 0       | 2.308336 | .5570821 | 0        |
| 14.     | 0       | .0580212 | .2701695 | 0        |
| 15.     | 1       | 1.314437 | 4.090522 | 1        |
| 16.     | 0       | .2513841 | .373765  | 0        |
| 17.     | 0       | .0700449 | .1367358 | 1        |
| 18.     | 0       | .5544065 | .373765  | 0        |
| 19.     | 0       | .0223129 | .0796183 | 0        |
| 20.     | 1       | 1.253086 | 3.592758 | 1        |
| 21.     | 1       | .9501866 | 3.147549 | 1        |
| 22.     | 1       | .0328685 | .0694553 | 1        |
| 23.     | 0       | .7186674 | 2.832983 | 1        |
| 24.     | 0       | .8245333 | 2.92057  | 1        |
| 25.     | 0       | .06716   | .2432199 | 0        |
| 26.     | 0       | .0324838 | .0556887 | 1        |
| 27.     | 0       | .1525367 | .322349  | 0        |
| 28.     | 0       | .0158307 | .0814843 | 0        |
| 29.     | 1       | .0260727 | .0502814 | 0        |
| 30.     | 0       | .0127456 | .0557911 | 0        |
| 31.     | 1       | .0604777 | .1399229 | 1        |
| 32.     | 0       | .0057882 | .0491178 | 0        |
| 33.     | 0       | .016084  | .0313788 | 0        |
| 34.     | 0       | .0057882 | .0491178 | 0        |
| 35.     | 1       | .2143768 | .3447837 | 0        |
| 36.     | 1       | .0264103 | .0556063 | 0        |
| 37.     | 1       | .1194046 | .3002407 | 0        |
| 38.     | 0       | .0123075 | .074704  | 0        |
| 39.     | 1       | .0123075 | .074704  | 0        |
| 40.     | 1       | .0182468 | .0306271 | 0        |

(Data set, Part C, Continued)

| Casenum | DVCGOOD | DEPGNP   | DEP      | INSCONST |
|---------|---------|----------|----------|----------|
| 41.     | 1       | .5504177 | 2.694861 | 1        |
| 42.     | 0       | .076493  | .2985592 | 0        |
| 43.     | 1       | .0052236 | .0522499 | 0        |
| 44.     | 1       | .0052236 | .0522499 | 0        |
| 45.     | 0       | .0481282 | .0355617 | 1        |
| 46.     | 0       | .7322114 | 2.862431 | 1        |
| 47.     | 0       | .0377392 | .0533383 | 0        |
| 48.     | 1       | .8327505 | 2.960287 | 1        |
| 49.     | 1       | .9011873 | 3.117041 | 1        |
| 50.     | 1       | .0163311 | .0995694 | 0        |
| 51.     | 1       | .0239732 | .1107411 | 0        |
| 52.     | 1       | 1.945434 | .3458019 | 0        |
| 53.     | 0       | .0199825 | .1052621 | 0        |
| 54.     | 0       | .012999  | .023838  | 0        |
| 55.     | 1       | .2782038 | .3711877 | 0        |
| 56.     | 0       | 1.002439 | 3.230388 | 1        |
| 57.     | 0       | 1.04093  | 3.153629 | 1        |
| 58.     | 1       | .0099332 | .0401753 | 0        |
| 59.     | 1       | .0444189 | .0527498 | 0        |
| 60.     | 0       | .290596  | .373955  | 0        |
| 61.     | 0       | .290596  | .373955  | 0        |
| 62.     | 1       | .290596  | .373955  | 0        |
| 63.     | 1       | .0389924 | .0308392 | 1        |
| 64.     | 1       | .0389924 | .0308392 | 1        |
| 65.     | 0       | .0099212 | .046124  | 0        |
| 66.     | 0       | .083274  | .2670678 | 0        |
| 67.     | 1       | 1.091819 | 3.532042 | 1        |
| 68.     | 1       | .0094952 | .0380045 | 0        |
| 69.     | 0       | 1.151036 | 3.389171 | 1        |
| 70.     | 0       | .0098103 | .0408097 | 0        |
| 71.     | 1       | .0288158 | .0269102 | 1        |
| 72.     | 1       | .0288158 | .0269102 | 1        |
| 73.     | 1       | .0809791 | .1692211 | 0        |
| 74.     | 1       | .0809791 | .1692211 | 0        |
| 75.     | 1       | .02324   | .1218329 | 0        |

Data set (Part D)

| Casenum | DIVIDED | APPROV | LTEXP  |
|---------|---------|--------|--------|
| 1.      | 1       | .5     | -1.584 |
| 2.      | 1       | .47    | 3.161  |
| 3.      | -1      | .34    | 3.292  |
| 4.      | -1      | .43    | 3.202  |
| 5.      | -1      | .37    | 3.292  |
| 6.      | 0       | .38    | 3.482  |
| 7.      | -1      | .37    | 3.367  |
| 8.      | -1      | .43    | 3.282  |
| 9.      | -1      | .54    | .632   |
| 10.     | 0       | .63    | 3.762  |
| 11.     | -1      | .51    | 3.123  |
| 12.     | 0       | .62    | 3.66   |
| 13.     | -1      | .32    | -.533  |
| 14.     | 0       | .6     | 3.836  |
| 15.     | -1      | .34    | 3.545  |
| 16.     | 0       | .53    | 3.479  |
| 17.     | -1      | .34    | -.431  |
| 18.     | 0       | .53    | 3.479  |
| 19.     | -1      | .32    | 1.505  |
| 20.     | 0       | .44    | 3.754  |

(Data set, Part D, Continued)

| Casenum | DIVIDED | APPROV | LTEXP |
|---------|---------|--------|-------|
| 21.     | 0       | .6     | 3.856 |
| 22.     | 0       | .42    | -.059 |
| 23.     | 1       | .46    | 4.074 |
| 24.     | 0       | .62    | 3.93  |
| 25.     | 0       | .42    | 3.84  |
| 26.     | 0       | .62    | 1.779 |
| 27.     | 0       | .62    | 3.946 |
| 28.     | 0       | .62    | 2.184 |
| 29.     | 0       | .62    | 1.875 |
| 30.     | 0       | .62    | -.868 |
| 31.     | 0       | .62    | .71   |
| 32.     | 0       | .54    | 2.573 |
| 33.     | 1       | .57    | -.035 |
| 34.     | 0       | .54    | 2.573 |
| 35.     | 1       | .75    | 4.453 |
| 36.     | 1       | .61    | 2.007 |
| 37.     | 0       | .61    | 4.308 |
| 38.     | 0       | .63    | 2.501 |
| 39.     | 0       | .63    | 2.501 |
| 40.     | 1       | .57    | -.05  |
| 41.     | 1       | .41    | 4.362 |
| 42.     | 1       | .63    | 4.385 |
| 43.     | 0       | .55    | 2.945 |
| 44.     | 0       | .55    | 2.945 |
| 45.     | 1       | .47    | .837  |
| 46.     | 1       | .57    | 4.427 |
| 47.     | 1       | .68    | 2.074 |
| 48.     | 1       | .53    | 4.435 |
| 49.     | 1       | .69    | 4.471 |
| 50.     | 1       | .47    | 3.067 |
| 51.     | 1       | .63    | 3.014 |
| 52.     | 1       | .47    | 4.502 |
| 53.     | 1       | .53    | 3.037 |
| 54.     | 1       | .62    | .183  |
| 55.     | 1       | .65    | 4.52  |
| 56.     | 1       | .69    | 4.488 |
| 57.     | 1       | .61    | 4.451 |
| 58.     | 1       | .52    | 1.568 |
| 59.     | 1       | .63    | 2.066 |
| 60.     | 1       | .63    | 4.528 |
| 61.     | 1       | .63    | 4.528 |
| 62.     | 1       | .63    | 4.528 |
| 63.     | 1       | .63    | 1.269 |
| 64.     | 1       | .63    | 1.269 |
| 65.     | 1       | .63    | .702  |
| 66.     | -1      | .49    | 4.628 |
| 67.     | 1       | .52    | 4.569 |
| 68.     | 1       | .53    | 1.732 |
| 69.     | -1      | .54    | 4.55  |
| 70.     | 1       | .36    | 1.9   |
| 71.     | 1       | .38    | 1.172 |
| 72.     | 1       | .38    | 1.172 |
| 73.     | 1       | .38    | 2.001 |
| 74.     | 1       | .36    | 2.001 |
| 75.     | 1       | .34    | 3.16  |

## APPENDIX E

### Calculation of Cases Correctly Predicted

#### I. Explanations

The predicted scores ( $S_j$ ) are calculated according to the following formula:

$$S_j = x_{1j}\beta_1 + x_{2j}\beta_2 + \dots + x_{kj}\beta_k \quad (1)$$

and the probabilities are:

$$Pr [0] = Pr(S_j + \mu_j < k_1) = \frac{1}{(1 + e^{S_j - k_1})}$$

$$Pr [1] = Pr(k_1 < S_j + \mu_j < k_2) = \frac{1}{(1 + e^{S_j - k_2})} - \frac{1}{(1 + e^{S_j - k_1})} \quad (2)$$

$$Pr [2] = Pr(k_2 < S_j + \mu_j < k_3) = \frac{1}{(1 + e^{S_j - k_3})} - \frac{1}{(1 + e^{S_j - k_2})} - \frac{1}{(1 + e^{S_j - k_1})}$$

$$Pr [3] = Pr(k_3 < S_j + \mu_j) = 1 - \frac{1}{(1 + e^{S_j - k_3})} - \frac{1}{(1 + e^{S_j - k_2})} - \frac{1}{(1 + e^{S_j - k_1})}$$

or, put more simply:

$$\begin{aligned} Pr[xb + \mu < cut1] &= Pr(0) \\ Pr[cut1 < xb + \mu < cut2] &= Pr(1) \\ Pr[cut2 < xb + \mu < cut3] &= Pr(2) \\ Pr[cut3 < xb + \mu] &= Pr(3) \end{aligned} \quad (3)$$

where cut1 = -3.872135; cut2 = -1.167997; cut3 = 1.399905

Notice the following:

- 1- Cases correctly predicted (CCP) are made by an "X"
- 2- Coded score for the dependent variable, as indicated in the data set, is represented by "CS" below.
- 3- In the results below, "score" represents " $xb + \mu$ " in equation (3). Therefore, "score" indicates the predicted score for each case. For instance, case #1 indicates a score of "-.0475775" which lies between cut2 and cut3 in equation (3). This means that the predicted score for the first entry is 2 (Partial success) and is indicated as such in the next to last column named "PS".

4- Also note that for the first case, the highest probability (.56) also suggests that the predicted score is a "2" (Partial success). It is not always the case that the two values coincide. For instance, in case #15, the highest probability (.5) suggests a predicted score of "0", while the variable "score" is located between cut points 1 and 2, such that its predicted score is 1.

5- The CCP is 55% (41/75)

## II. CCP for the Interdependence Model.

TABLE 22

Interdependence Model: Cases Correctly Predicted

| Target        | Score     | Fail. | NoSuc. | Psuc. | Suc. | CS | PS | CCP |
|---------------|-----------|-------|--------|-------|------|----|----|-----|
| 1. Guatemala  | -0.047578 | .021  | .225   | .564  | .190 | 1  | 2  |     |
| 2. Canada     | -0.237407 | .026  | .257   | .554  | .163 | 3  | 2  |     |
| 3. EC         | -1.336829 | .073  | .469   | .397  | .061 | 2  | 1  |     |
| 4. EC         | -0.772172 | .043  | .359   | .495  | .102 | 1  | 2  |     |
| 5. EC         | -2.676891 | .232  | .587   | .164  | .017 | 0  | 1  |     |
| 6. EC         | -4.76077  | .709  | .265   | .025  | .002 | 0  | 0  | x   |
| 7. EC         | -1.332599 | .073  | .468   | .398  | .061 | 1  | 1  | x   |
| 8. EC         | -1.800238 | .112  | .541   | .308  | .039 | 1  | 1  | x   |
| 9. Taiwan     | -0.414732 | .031  | .29    | .54   | .14  | 3  | 2  |     |
| 10. EC        | -1.515468 | .087  | .499   | .363  | .051 | 2  | 1  |     |
| 11. Japan     | -1.037186 | .055  | .412   | .452  | .08  | 3  | 2  |     |
| 12. Japan     | 0.6387447 | .011  | .130   | .541  | .318 | 2  | 2  | x   |
| 13. USSR      | -2.280488 | .169  | .583   | .223  | .025 | 1  | 1  | x   |
| 14. Canada    | -2.09163  | .144  | .576   | .255  | .03  | 0  | 1  |     |
| 15. EC        | -3.869029 | .499  | .438   | .058  | .005 | 1  | 1  | x   |
| 16. Japan     | -1.455447 | .082  | .489   | .374  | .054 | 1  | 1  | x   |
| 17. Argentina | -4.545929 | .662  | .305   | .03   | .003 | 1  | 0  |     |
| 18. Japan     | -1.5218   | .087  | .501   | .361  | .051 | 1  | 1  | x   |
| 19. Korea     | -4.309597 | .608  | .351   | .038  | .003 | 1  | 0  |     |
| 20. EC        | -3.478994 | .403  | .507   | .083  | .008 | 0  | 1  |     |
| 21. EC        | -2.649275 | .227  | .587   | .168  | .017 | 1  | 1  | x   |
| 22. Argentina | -5.093464 | .772  | .208   | .018  | .002 | 0  | 0  | x   |
| 23. EC        | -2.54675  | .21   | .589   | .182  | .019 | 2  | 1  |     |
| 24. EC        | -3.100936 | .316  | .557   | .115  | .011 | 1  | 1  | x   |
| 25. Canada    | 0.9102559 | .008  | .103   | .509  | .38  | 0  | 2  |     |
| 26. Brazil    | -1.441596 | .081  | .487   | .377  | .055 | 2  | 1  |     |
| 27. Japan     | 0.4134524 | .014  | .157   | .558  | .272 | 2  | 2  | x   |
| 28. Korea     | 0.7189069 | .01   | .126   | .532  | .336 | 2  | 2  | x   |
| 29. Brazil    | -1.652466 | .098  | .521   | .336  | .045 | 2  | 1  |     |
| 30. Portugal  | 0.5239633 | .012  | .143   | .55   | .294 | 0  | 2  |     |
| 31. Spain     | -2.616462 | .222  | .588   | .173  | .018 | 0  | 1  |     |
| 32. Taiwan    | -0.744051 | .042  | .354   | .5    | .105 | 2  | 2  | x   |
| 33. Argentina | -0.627502 | .038  | .331   | .516  | .116 | 2  | 2  | x   |
| 34. Taiwan    | -0.744051 | .042  | .354   | .5    | .105 | 2  | 2  | x   |
| 35. Japan     | -0.81252  | .045  | .367   | .489  | .097 | 1  | 2  |     |
| 36. Brazil    | -1.620482 | .095  | .516   | .342  | .047 | 2  | 1  |     |
| 37. Japan     | 2.424464  | .002  | .025   | .237  | .736 | 3  | 3  | x   |
| 38. Korea     | -0.328545 | .028  | .274   | .548  | .151 | 3  | 2  |     |
| 39. Korea     | -1.368414 | .076  | .474   | .391  | .059 | 1  | 1  | x   |
| 40. Argentina | -1.529612 | .088  | .502   | .36   | .051 | 2  | 1  |     |
| 41. EC        | 0.5723392 | .012  | .138   | .547  | .304 | 3  | 2  |     |
| 42. Canada    | 1.395141  | .005  | .066   | .43   | .5   | 2  | 2  | x   |
| 43. Taiwan    | 0.4775202 | .013  | .149   | .554  | .284 | 2  | 2  | x   |
| 44. Taiwan    | 0.4775202 | .013  | .149   | .554  | .284 | 2  | 2  | x   |
| 45. India     | -1.303328 | .071  | .463   | .403  | .063 | 2  | 1  |     |
| 46. EC        | -0.21064  | .025  | .252   | .556  | .166 | 1  | 2  |     |

(Table 22, continued)

|     | Target    | Score      | Fail. | Nosuc. | Psuc. | Succ. | CS | PS | CCP |
|-----|-----------|------------|-------|--------|-------|-------|----|----|-----|
| 47. | Brazil    | -2.325102  | .176  | .585   | .216  | .024  | 1  | 1  | x   |
| 48. | EC        | -3.252369  | .35   | .539   | .101  | .009  | 0  | 1  |     |
| 49. | EC        | -3.578101  | .427  | .491   | .076  | .007  | 1  | 1  | x   |
| 50. | Korea     | 0.3386567  | .015  | .167   | .561  | .257  | 2  | 2  | x   |
| 51. | Korea     | -1.385417  | .077  | .477   | .388  | .058  | 2  | 1  |     |
| 52. | Japan     | 2.200517   | .002  | .031   | .277  | .69   | 3  | 3  | x   |
| 53. | Korea     | 1.32442    | .006  | .071   | .442  | .481  | 2  | 2  | x   |
| 54. | Argentina | -0.7597389 | .043  | .357   | .497  | .103  | 1  | 2  |     |
| 55. | Japan     | -0.9308459 | .05   | .391   | .47   | .089  | 2  | 2  | x   |
| 56. | EC        | 0.3529504  | .014  | .165   | .561  | .26   | 3  | 2  |     |
| 57. | EC        | -1.219505  | .066  | .447   | .419  | .068  | 2  | 1  |     |
| 58. | Thailand  | -2.1466068 | .151  | .576   | .245  | .028  | 1  | 1  | x   |
| 59. | Brazil    | -0.2982065 | .027  | .268   | .55   | .156  | 3  | 2  |     |
| 60. | Japan     | 1.703313   | .004  | .05    | .371  | .575  | 3  | 3  | x   |
| 61. | Japan     | 1.703313   | .004  | .05    | .371  | .575  | 2  | 3  |     |
| 62. | Japan     | 0.6634434  | .011  | .127   | .538  | .324  | 2  | 2  | x   |
| 63. | India     | -3.888287  | .504  | .434   | .057  | .005  | 0  | 0  | x   |
| 64. | India     | -3.888287  | .504  | .434   | .057  | .005  | 0  | 0  | x   |
| 65. | Norway    | -0.7079747 | .041  | .346   | .505  | .108  | 1  | 2  |     |
| 66. | Canada    | -2.147396  | .151  | .576   | .245  | .028  | 1  | 1  | x   |
| 67. | EC        | -0.7319311 | .041  | .351   | .501  | .106  | 2  | 2  | x   |
| 68. | Thailand  | -3.261353  | .352  | .538   | .1    | .009  | 1  | 1  | x   |
| 69. | EC        | -1.689754  | .101  | .526   | .329  | .043  | 1  | 1  | x   |
| 70. | Thailand  | -2.20282   | .159  | .579   | .236  | .027  | 1  | 1  | x   |
| 71. | India     | -3.732554  | .465  | .463   | .066  | .006  | 1  | 1  | x   |
| 72. | India     | -3.732554  | .465  | .463   | .066  | .006  | 0  | 1  |     |
| 73. | China     | -3.309284  | .363  | .532   | .096  | .009  | 1  | 1  | x   |
| 74. | China     | -1.948033  | .127  | .558   | .28   | .034  | 1  | 1  | x   |
| 75. | Taiwan    | -1.202381  | .065  | .444   | .422  | .069  | 1  | 1  | x   |



**III- CCP for Null Hypothesis**

TABLE 23

Null Hypothesis: Empirical Estimates

Iteration 0: Log Likelihood = -97.193256

Ordered Logit Estimates  
75

0.00

Log Likelihood = -97.193256  
0.0000

Number of obs =

chi2(0) =

Prob &gt; chi2 =

Pseudo R2 =

| Success     | Coef.     | Std. Err. | z | P> z | [95% Conf. Interval]   |
|-------------|-----------|-----------|---|------|------------------------|
| -----+----- |           |           |   |      |                        |
| -----+----- |           |           |   |      |                        |
| _cut1       | -1.658228 | .3149704  |   |      | (Ancillary parameters) |
| _cut2       | .1335314  | .231455   |   |      |                        |
| _cut3       | 1.871802  | .3396831  |   |      |                        |
| -----+----- |           |           |   |      |                        |

scornul  
1 to 75. 0

Pr[cut1 < xb +  $\mu$  < cut2] => Pr (1) for all cases: the predicted score of "0" is located between "-1.658" and ".1335". This means that the predicted score equals the coded score for 28 out of 75 cases, i.e., 37% of the cases (CCP= 37%).

**IV- CCP for the Compliance Model.**

Legend: PS => Predicted Score  
CS => Coded Score  
CCP => Cases correctly predicted marked by an "X"

Predicted scores:

Pr[xb +  $\mu$  < -1.370799] => Pr(0)  
Pr[-1.370700 < xb +  $\mu$  < .9746096] => Pr(1)  
Pr[.9746096 < xb +  $\mu$  < 3.282908] => Pr(2)  
Pr[3.282908 < xb +  $\mu$ ] => Pr(3)

TABLE 24

## Compliance Model: Cases Correctly Predicted

|     | Target    | Score      | Fail. | NoSuc. | PSuc. | Succ. | CS | PS | CCP |
|-----|-----------|------------|-------|--------|-------|-------|----|----|-----|
| 1.  | Guatemala | 1.000214   | .085  | .408   | .414  | .093  | 1  | 2  |     |
| 2.  | Canada    | 2.447955   | .021  | .165   | .511  | .303  | 3  | 2  |     |
| 3.  | EC        | 0.9690421  | .088  | .413   | .408  | .09   | 2  | 1  |     |
| 4.  | EC        | 1.022796   | .084  | .404   | .418  | .094  | 1  | 2  |     |
| 5.  | EC        | -0.5089093 | .297  | .518   | .163  | .022  | 0  | 1  |     |
| 6.  | EC        | -1.224504  | .463  | .437   | .089  | .011  | 0  | 1  |     |
| 7.  | EC        | 0.9768543  | .087  | .412   | .41   | .091  | 1  | 2  |     |
| 8.  | EC        | 0.2777954  | .161  | .506   | .285  | .047  | 1  | 1  | x   |
| 9.  | Taiwan    | 1.617579   | .048  | .297   | .496  | .159  | 3  | 2  |     |
| 10. | EC        | 1.319283   | .064  | .351   | .462  | .123  | 2  | 2  | x   |
| 11. | Japan     | 1.310781   | .064  | .353   | .461  | .122  | 3  | 2  |     |
| 12. | Japan     | 2.473805   | .021  | .162   | .509  | .308  | 2  | 2  | x   |
| 13. | USSR      | -0.2247119 | .241  | .527   | .202  | .029  | 1  | 1  | x   |
| 14. | Canada    | 1.486986   | .054  | .32    | .483  | .142  | 0  | 2  |     |
| 15. | EC        | -1.293206  | .48   | .426   | .084  | .01   | 1  | 1  |     |
| 16. | Japan     | 1.462775   | .056  | .325   | .48   | .139  | 1  | 2  |     |
| 17. | Argentina | -1.385208  | .504  | .41    | .077  | .009  | 1  | 0  |     |
| 18. | Japan     | 1.462775   | .056  | .325   | .48   | .139  | 1  | 2  |     |
| 19. | Korea     | 0.4532568  | .139  | .489   | .317  | .056  | 1  | 1  | x   |
| 20. | EC        | -1.25547   | .471  | .432   | .087  | .011  | 0  | 1  |     |
| 21. | EC        | -0.9803149 | .404  | .472   | .11   | .014  | 1  | 1  | x   |
| 22. | Argentina | -0.5389073 | .303  | .516   | .159  | .021  | 0  | 1  |     |
| 23. | EC        | 0.2174751  | .17   | .511   | .275  | .045  | 2  | 1  |     |
| 24. | EC        | -0.0430708 | .21   | .525   | .231  | .035  | 1  | 1  | x   |
| 25. | Canada    | 3.064813   | .012  | .098   | .444  | .446  | 0  | 2  |     |
| 26. | Brazil    | 0.9114295  | .093  | .423   | .399  | .085  | 2  | 1  |     |
| 27. | Japan     | 3.665023   | .006  | .057   | .342  | .594  | 2  | 3  |     |
| 28. | Korea     | 2.23585    | .026  | .194   | .519  | .26   | 2  | 2  | x   |
| 29. | Brazil    | -0.0812783 | .216  | .526   | .225  | .033  | 2  | 1  |     |
| 30. | Portugal  | 1.199826   | .071  | .373   | .445  | .111  | 0  | 2  |     |
| 31. | Spain     | -0.3026388 | .256  | .526   | .191  | .027  | 0  | 1  |     |
| 32. | Taiwan    | 1.052014   | .081  | .399   | .422  | .097  | 2  | 2  | x   |
| 33. | Argentina | -0.0101231 | .204  | .524   | .236  | .036  | 2  | 1  |     |
| 34. | Taiwan    | 1.052014   | .081  | .399   | .422  | .097  | 2  | 2  | x   |
| 35. | Japan     | 2.240316   | .026  | .194   | .519  | .26   | 1  | 2  |     |
| 36. | Brazil    | -0.0530283 | .211  | .525   | .229  | .034  | 2  | 1  |     |
| 37. | Japan     | 3.686565   | .006  | .056   | .338  | .6    | 3  | 3  | x   |
| 38. | Korea     | 0.9550056  | .089  | .416   | .406  | .089  | 3  | 1  |     |
| 39. | Korea     | 0.1842879  | .174  | .513   | .269  | .043  | 1  | 1  | x   |
| 40. | Argentina | -0.7884258 | .358  | .495   | .13   | .017  | 2  | 1  |     |
| 41. | EC        | 1.554829   | .051  | .308   | .49   | .151  | 3  | 2  |     |
| 42. | Canada    | 3.236233   | .01   | .084   | .417  | .488  | 2  | 2  | x   |
| 43. | Taiwan    | 2.05256    | .032  | .222   | .52   | .226  | 2  | 2  | x   |
| 44. | Taiwan    | 2.05256    | .032  | .222   | .52   | .226  | 2  | 2  | x   |
| 45. | India     | 0.5388017  | .129  | .478   | .332  | .06   | 2  | 1  |     |
| 46. | EC        | 0.666428   | .115  | .461   | .355  | .068  | 1  | 1  | x   |
| 47. | Brazil    | 0.7375649  | .108  | .451   | .368  | .073  | 1  | 1  | x   |
| 48. | EC        | -0.2913507 | .254  | .526   | .193  | .027  | 0  | 1  |     |
| 49. | EC        | -0.3820754 | .271  | .524   | .18   | .025  | 1  | 1  | x   |
| 50. | Korea     | 1.974323   | .034  | .235   | .518  | .213  | 2  | 2  | x   |
| 51. | Korea     | 0.382091   | .148  | .496   | .304  | .052  | 2  | 1  |     |
| 52. | Japan     | 3.849624   | .005  | .048   | .309  | .638  | 3  | 3  | x   |
| 53. | Korea     | 2.676395   | .017  | .137   | .493  | .353  | 2  | 2  | x   |
| 54. | Argentina | 0.0601462  | .193  | .521   | .248  | .038  | 1  | 1  | x   |
| 55. | Japan     | 2.190304   | .028  | .201   | .52   | .251  | 2  | 2  | x   |
| 56. | EC        | 1.696945   | .044  | .282   | .503  | .17   | 3  | 2  |     |
| 57. | EC        | 0.1014604  | .187  | .519   | .255  | .04   | 2  | 1  |     |
| 58. | Thailand  | 1.225579   | .069  | .368   | .449  | .113  | 1  | 2  |     |

(Table 24, continued)

|     | Target   | Score      | Fail. | NoSuc. | PSuc. | Succ. | CS | PS | CCP |
|-----|----------|------------|-------|--------|-------|-------|----|----|-----|
| 59. | Brazil   | 1.426863   | .057  | .331   | .476  | .135  | 3  | 2  |     |
| 60. | Japan    | 2.922531   | .013  | .111   | .464  | .411  | 3  | 2  |     |
| 61. | Japan    | 2.922531   | .013  | .111   | .464  | .411  | 2  | 2  | x   |
| 62. | Japan    | 2.151814   | .029  | .207   | .52   | .244  | 2  | 2  | x   |
| 63. | India    | -1.554763  | .546  | .38    | .066  | .008  | 0  | 0  | x   |
| 64. | India    | -1.554763  | .546  | .38    | .066  | .008  | 0  | 0  | x   |
| 65. | Norway   | 0.2396255  | .167  | .509   | .279  | .046  | 1  | 1  | x   |
| 66. | Canada   | 1.819362   | .04   | .261   | .512  | .188  | 1  | 2  |     |
| 67. | EC       | 0.821506   | .1    | .438   | .383  | .079  | 2  | 1  |     |
| 68. | Thailand | -0.174118  | .232  | .527   | .21   | .03   | 1  | 1  | x   |
| 69. | EC       | -0.0302645 | .207  | .525   | .233  | .035  | 1  | 1  | x   |
| 70. | Thailand | 0.6651224  | .115  | .461   | .355  | .068  | 1  | 1  | x   |
| 71. | India    | -1.577698  | .552  | .376   | .065  | .008  | 1  | 0  |     |
| 72. | India    | -1.577698  | .552  | .376   | .065  | .008  | 0  | 0  | x   |
| 73. | China    | -0.1535402 | .228  | .527   | .213  | .031  | 1  | 1  | x   |
| 74. | China    | 1.324411   | .063  | .35    | .463  | .124  | 1  | 2  |     |
| 75. | Taiwan   | 0.4417549  | .140  | .49    | .315  | .055  | 1  | 1  | x   |

CCP =&gt; 34/75 =&gt; 45%

## APPENDIX F

### Logit Estimates

#### I. Bayard and Elliot's (1994) Categories.

The following estimates presents a logit analysis in with two categories for the dependent variable: Failure and nominal success, as well as partial success and success are collapsed into one category. This classification for the dependent variable corresponds to the one used by Bayard and Elliot (1994).

TABLE 25

Logit Analysis: Success/Failure

Number of obs = 75  
Chi<sup>2</sup>(5) = 24.32  
Prob > chi<sup>2</sup> = 0.0002  
Pseudo R<sup>2</sup> = 0.2347  
Log Likelihood = -39.658535

| Success  | Coef.   | Std. err. | z      | P >  z |
|----------|---------|-----------|--------|--------|
| INSCONST | -.9166  | .7115     | -1.288 | 0.198  |
| LTEXP    | .2671   | .2222     | 1.202  | 0.229  |
| DVCGOOD  | -.5331  | .5688     | -.937  | 0.349  |
| THREAT   | 1.7774  | .5859     | 3.033  | 0.002  |
| TBAL     | -.0455  | .0298     | -1.529 | 0.126  |
| _cons    | -1.3084 | .6532     | -2.003 | 0.045  |

## II. Failure as a Separate Category.

This second analysis creates a special category for cases classified as failures.

Other three categories are collapsed.

TABLE 26

Logit Analysis: Failure

Number of obs = 75  
 Chi<sup>2</sup>(5) = 13.33  
 Prob > chi<sup>2</sup> = 0.0205  
 Pseudo R<sup>2</sup> = 0.2021  
 Log Likelihood = -26.312203

| Success  | Coef.   | Std. err. | z      | P >  z |
|----------|---------|-----------|--------|--------|
| INSCONST | -1.8885 | .8729     | -2.163 | 0.031  |
| LTEXP    | .354    | .2348     | 1.502  | 0.132  |
| DVCGOOD  | -.9504  | .7281     | -1.305 | 0.192  |
| THREAT   | .4194   | .7446     | .563   | 0.573  |
| TBAL     | -.0179  | .0435     | -.411  | 0.681  |
| _cons    | 2.0812  | .8715     | 2.388  | 0.017  |

### III. Success as a Separate Category

This third analysis creates a separate category for cases of full success. Other three categories are collapsed.

TABLE 27

Logit Analysis: Success

Number of obs = 75  
 Chi<sup>2</sup>(5) = 12.03  
 Prob > chi<sup>2</sup> = 0.0344  
 Pseudo R<sup>2</sup> = 0.2185  
 Log Likelihood = -21.506364

| Success  | Coef.   | Std. err. | z      | P >  z |
|----------|---------|-----------|--------|--------|
| INSCONST | -1.4391 | 1.2804    | -1.124 | 0.261  |
| LTEXP    | .1631   | .3533     | .462   | 0.644  |
| DVCGOOD  | -1.2511 | .9304     | -1.345 | 0.179  |
| THREAT   | 1.6569  | .8535     | 1.941  | 0.052  |
| TBAL     | -.0384  | .0331     | -1.162 | 0.245  |
| _cons    | -2.9669 | 1.0905    | -2.721 | 0.007  |

#### IV. Ordered Multinomial Logit with Three Categories

Bayard and Elliot (1993:63) discuss the difficulty of classifying a cases into a "nominal" or a "partial" success. This prodded me to collapse the these two middle categories as see if the results are very different that a model with four categories.

TABLE 28

##### Ordered Multinomial Logit Analysis With Three Categories

Number of obs.: 75  
 Chi<sup>2</sup>(10): 20.88  
 Prob > chi<sup>2</sup>: .0009  
 Pseudo R<sup>2</sup>: .1724  
 Log Likelihood: -50.10218

| Success  | Coef.   | Std. err. | z      | P >  z |
|----------|---------|-----------|--------|--------|
| INSCONST | -1.5146 | .7026     | -2.156 | 0.031  |
| LTEXP    | .3221   | .2073     | 1.554  | 0.12   |
| DVCGOOD  | -.8941  | .5507     | -1.624 | 0.104  |
| THREAT   | 1.1224  | .5705     | 1.968  | 0.049  |
| TBAL     | -.0259  | .0228     | -1.133 | 0.257  |
| _cut1    | -1.6689 | .6855     |        |        |
| _cut2    | 2.8849  | .7669     |        |        |
| _cut3    | 3.2829  | .6857     |        |        |

The results are similar, but the model with four categories yields better results. By collapsing the middle two categories, three variables are now not significant at the .1 level.

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