

DOMESTIC INFLUENCES FOR INTERSTATE COOPERATION: DO DOMESTIC  
CONDITIONS AFFECT THE OCCURRENCE OF COOPERATIVE  
EVENTS IN DEMOCRATIC REGIMES?

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Dissertation Prepared for the Degree of  
DOCTOR OF PHILOSOPHY

UNIVERSITY OF NORTH TEXAS

August 2004

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Yi, Seong-Woo, Domestic influences for interstate cooperation: Do domestic conditions affect the occurrence of cooperative events in democratic regimes? Doctor of Philosophy (Political Science), August 2004, 191 pp., 6 tables, references, 40 titles.

This research will address two main issues that have become evident in studies of interstate cooperation. The first issue has to do with the relationship between cooperation and conflict. Can they be represented on a single, uni-dimensional continuum, or are they better represented by two theoretically and empirically separable dimensions? Granger causality tests will be able to clarify the nature of cooperative events.

The second issue is related to factors that might facilitate or discourage cooperation with other countries as a foreign policy tool. Factors used to explain cooperation and conflict include domestic variables, which have not been fully accounted for in previous empirical analyses. It will be hypothesized that economic variables, such as inflation rates, GDP, and manufacturing production indices affect the likelihood of cooperative event occurrences. The effect of political dynamics, such as electoral cycles, support rates and national capability status, can also affect the possibility of cooperative foreign policies. The domestic factors in panel data will be tested with Feasible Generalized Least Square (FGLS) in order to take care of heteroscedasticity and autocorrelations in residuals. The individual case analysis will use linear time series analysis.

## ACKNOWLEDGMENTS

I would like to express my gratitude to my advisor, Steve Poe, for his support, patience, and encouragement throughout my graduate studies. His technical and editorial advice was essential to the completion of this dissertation and has taught me innumerable lessons about the intricacies of academic research in general. I also appreciate his scholarly influence, which emphasized humanitarian issues in my academic activities. This will be the source of my future academic activities.

My thanks also go to the members of my major committee, Michael Greig, John Booth, and Don Smith, for reading previous drafts of my dissertation and providing many valuable comments and suggestions that improved its presentation and content. Particularly, I owe special thanks to Michael Greig, who gave me the confidence to keep pursuing what I felt to be the correct theoretical framework.

Last, but not least, I would like to thank my wife Kyoung-Hee for her understanding and love during the past few years and my son Hans for his hugs and kisses. Her support and encouragement was, in the end, what made this dissertation possible. My parents receive my deepest gratitude and love for their dedication and their many years of support during my undergraduate studies, which provided the foundation for this work.

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## CHAPTER I

### INTRODUCTION

#### General Trends in Cooperation Studies

The study of interstate cooperation has become one of the major research topics in international relations over the last two decades. General academic concern for interstate cooperation started in the early 1970s when a trend toward greater interstate cooperation occurred in the economic and security issue domains (Milner, 1992). The importance of the study of cooperation is related to the positive nature of cooperation itself in terms of the human value system. While conflict is related to the negative dimensions of human behavior, cooperation emphasizes the positive aspects of human activity: all participants in a cooperative effort are maximizing common interests and/or minimizing common aversions.<sup>1</sup>

Despite the presence of an accepted definition of cooperation<sup>2</sup> and a surge of academic efforts, the concept of cooperation has proved to be as elusive to realize as to analyze (Milner 1992). There remains a huge gap because empirical measurements have not directly and accurately reflected the multiple dimensions of cooperation. Even theoretical discussion is not consistent because Keohane's (1984) definition omits the collaboration part of

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<sup>1</sup> Keohane (1984) discusses in detail the value of cooperative activities, which do not always represent positive dimensions of human value system.

<sup>2</sup> Among the definitions of cooperation, Keohane's (1984) definition has been accepted as a reasonable one although it ignores the collaboration process: cooperation occurs when actors adjust their behavior to the actual or anticipated preferences of others, through a process of policy coordination, in which coordination implies that the policies of each state have been adjusted to reduce their negative consequences for the other states.

the cooperation process, considering only coordination.<sup>3</sup> The conceptual ambiguity of cooperation requires more investigation than other topics in international relations.

Related to different types of empirical analyses finding causal factors, the theoretical emphases of previous literatures, which are derived from the systemic arrangement theory of international relations (Milner 1992), can be categorized as follows: Tit-For-Tat (TFT) theory with relative gain problem, the number of actors, iteration of the game, international regimes, epistemic international communities, and power disparity. All of these neglect the importance of domestic politics. This shortcoming leads me to consider domestic factors as explanatory variables for interstate cooperation.

### Research Questions

My research recognizes the increasing importance of the study of interstate cooperation, and tries to find answers for two intriguing research questions. First, what kind of theoretical and empirical relationships exist between cooperation and conflict? Although analysts have put forth a recognized definition of cooperation at the theoretical level (Stein 1982; Keohane 1984), the nature of the empirical relationship between conflict and cooperation is still in question.

Politicians' usage of the terms cooperation and peace seem rather fuzzy. The concept of cooperation has at times been used as political propaganda by leaders seeking to build favorable political images for themselves. Politicians often use the term "international cooperation" to

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<sup>3</sup> Stein (1982) points out both coordination and collaboration processes as parts of cooperation.

describe an agreement between two or more countries. When leaders exchange opinions at summits, they emphasize “reinforcement of mutual cooperation and peaceful resolution of internationally present conflict or potential conflict” as a final conclusion of a summit. For example, after Moo-Hyun Roh was elected to the Korean presidency in 2002, Bush and Roh agreed on “close cooperation for mutual interest thus, guarantee of the peace in Korean peninsular through peaceful resolution of nuclear threat from North Korea”<sup>4</sup> at the Washington summit. Despite well-known different perspectives between the Bush and Roh Administrations on the approach to the North Korean issue, both agreed and declared “*mutual cooperation*” and “*peace*” on this specific issue. As this example shows, the terms “*cooperation*” and “*peace*” have been used interchangeably to contrast with conflict, threat, and/or war. This means that the rhetorical usage of cooperation, peace, and conflict are confused when a politician mentions interstate cooperation. In some sense, this type of ambiguity in the conceptual treatment of cooperation by politicians has been accepted by the academic community without critical thought.

Unlike the politicians’ rhetoric, cooperation by multiple participants does not necessarily resolve current conflict. Cooperation partners often initiate interstate conflict through modifying benefit and cost from participation in militarized interstate conflict under the cause of cooperation. Therefore, my research will try to clarify the relationship between cooperation and conflict.

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<sup>4</sup> *Hankyoreh*. December 21, 2002.

My second question is related to the factors affecting interstate cooperation behavior. As Milner (1992) declares, there is general agreement in the conceptual definition of cooperation, and increasing academic interest in the study of cooperation has contributed to conceptual development on that issue. However, the empirical study of cooperation has lagged behind developments in the conceptual realm. For the most part, studies of cooperation have been limited to those adopting one of two theoretical approaches: 1) those who use the logic of reciprocity, and relying mainly on Tit-For-Tat (TFT) as a theoretical framework, and 2) those who fall back on Richardson's arms race model as a method of model specification (Leng and Wheeler 1979; Cusack and Ward 1981; Majeski and Jones 1981; Ward, 1982; 1984; Freeman, 1983; Dixon, 1986; Ostrom and Marra 1986)

The various empirical studies testing the reciprocity argument inform us how cooperation is possible under the anarchic international system, which reinforces the theory of Axelrod (1980), derived from the two-actors Prisoner's Dilemma (PD) game. It is true that the game theoretical and rational choice approaches are heuristically very powerful and that they provide a set of analytic tools that can be employed to examine various issues of cooperation. However, they are unable to address the continuing alteration between cooperation and defection and/or between cooperation and conflict by actors in real international relations. In other words, the reciprocity argument has not provided any answers for why cooperative relationships occur between once-defected players under the circumstance of uncertainty, given the probability of making commitments, or for that matter, why actors would choose to defect

once cooperative relationships have been accomplished, despite the expected loss of current payoffs from cooperation.

This shortcoming of the TFT approach is attributable to the assumption of a static payoff structure for participants. The payoffs from cooperation and defection are not perennially static, but rather, dynamic over time. The major reason for a country's behavior could be dynamic changes in domestic political conditions which ultimately influence its payoff system. A rational actor always tries to maximize its utility through unilateral change of policy choice, if it is possible.<sup>5</sup> As I presented above, a defection by a once-cooperative actor means that the given actor finds a better payoff with a defection policy choice toward its partner than with a continuing cooperation policy choice toward the same partner.

Although my analyses do not explicitly deal with the payoff system of TFT theory, I consider another assumption of TFT theory, which is that a unitary actor decides either conflict or cooperation policy. This realist assumption of a unitary actor is far from the reality of international relations and foreign policy decision making, where outcomes reflect dynamic interactions among various relevant participants such as bureaucrats, social groups, and decision makers.

National interest as a policy goal is not as simple as a business interest. As an analogy, maximization of national interest is different from that of business or economic interest. Maximization of economic interest is more likely to be uni-dimensional and tangible; it refers to maximizing profits in

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<sup>5</sup> This argument is complimentary with the concept of Nash Equilibrium.

terms of a currency unit. National interest is far more complicated than interest in terms of economics. National interest is inclusive enough to involve political, military, cultural, as well as economic dimensions, which consist of tangible and intangible parts together.<sup>6</sup>

Based on the presence of multidimensionality of national interest and multiple participants in the decision making process, cooperation study requires diverse approaches. I propose various factors that possibly affect the payoff structure: international systems, nature of dyadic relations, regional stability, and domestic conditions of participants. My research design will focus on domestic factors which have been overlooked to date in the study of cooperation. Consideration of domestic factors provides a way to overcome the weaknesses of the TFT approach because, this way, one need not assume a unitary actor and a single dimension of national interest.

As conflict studies involving domestic factors have achieved astonishing academic development relative to structural theory, I expect that cooperation studies involving domestic factors are also worthy of investigation. Domestic factors could prove to be determinants of cooperation and may provide a better understanding of interstate cooperation than that TFT theory has conveyed.

### Theoretical Basis

Each of my research questions serves as a base point for a new theoretical contribution to the study of interstate cooperation. My research

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<sup>6</sup> Fearon (1994) includes “audience cost” as an important component for nation states’ consideration of cost-benefit calculation when facing initiation of war.

design explicitly denies the dominance of “net-cooperation” (Goldstein 1991; 1992) in current empirical studies of interstate cooperation because it is not based on scientific verification. The Granger causality test is designed for the conceptual clarification of cooperation and conflict. In order to determine the appropriate treatment of the dependent variable, cooperation, my research design will need to test the conceptual relationship between cooperation and conflict.

Despite the discordance between the empirical definition of Granger causality and the conceptual definition of causality, Granger causality is a better statistical method than either structural equation modeling or correlation analysis to justify mutual exclusivity of cooperation and conflict. The conceptual appropriateness of “net-cooperation” will be tested with time series analysis in comparison with separated cooperation and conflict in terms of the statistical goodness-of-model-fits. The result of this Granger causality test will contribute to the theoretical arrangement of important concepts in international relations: cooperation, conflict, and peace.

My dissertation will take into account various liberal international relations theories such as diversionary theory (Morgan and Bickers 1992; Levy 1993; Meernik and Waterman 1996), two-level game theory (Putnam 1988; McGinnis and Williams 1993), public opinion in foreign policy (Holsti 1996; Allison and Zelikow 1999), political economy in comparative politics (Gourevitch 1978; Katzenstein 1985; Haggard 1990) and democratic peace theory (Maoz and Russett 1993; Russett 1993). A significant commonality among these seemingly different theories is the linkage between domestic

politics, economics and international behavior. In order to analyze foreign policy behavior, my theory emphasizes the linkage between domestic politics and foreign policy, particularly cooperation behavior.

Two-level game theory plays a central role in my own theory, which derives variables from diversionary theory and policy decision making theory (electoral cycles, support rates, and economic conditions) and political economy theory (power distribution of social class). My “diversionary use of cooperation” theory will be supplementary to the “diversionary use of military” force theory. My theory attributes the inconsistent empirical findings of previous research to the possibility of diversionary use of cooperation by decision makers.

### Plan for Chapters

I have ordered my research questions following typical empirical analyses: first, the nature of cooperation and conflict, and second, domestic factors affecting interstate cooperation behavior, which are closely related subjects. In order to analyze the second research question, I have to examine the nature of cooperation and conflict instead of accepting the concept of “net-cooperation.” I emphasize the multiplicity of action-reaction in interstate foreign policies. Thus, I bring several examples from real politics in several different places. However, the major focus of my dissertation is a generalization of domestic influence on cooperation behavior in democratic regimes.

Chapter II will review the major developments of empirical analyses in the studies of interstate cooperation. In terms of theoretical development, the

empirical analyses heavily rely on TFT at the dyadic level. Some empirical analyses also consider an advanced mode of multiple TFT relationships such as triadic reciprocity. Only a few deal with domestic impacts on interstate cooperation. In this chapter, I also introduce two major event count data sets: Conflict and Peace Data Bank (COPDAB) and World Event Interaction Survey (WEIS) and its compatibility.

Chapter III showcases the theory and hypotheses. The first part of this chapter is about the nature of cooperation and conflict. The theoretical development of domestic political influence on interstate cooperation is also a major part of this chapter. For this purpose, I introduce two-level game theory, diversionary theory, and state-in-society theory, which deal with the connection between domestic politics and foreign policy behavior. Each theory provides a different theoretical explanation. Two-level game theory allows me to develop the interstate cooperation theory of domestic dynamics. Diversionary theory provides the major theoretical explanation, which is that electoral cycles and economic fluctuation might impact foreign policy behavior. My theory could be called a diversionary theory of interstate cooperation, because it tries to find the missing part of diversionary use of force theory.

Chapter IV discusses empirical and methodological issues for testing my hypotheses. I start with the discussion of the measurement and treatment of cooperation and conflict with WEIS and COPDAB because these are dependent variables in my analyses. Then, I discuss my dependent variables, the aggregated cooperation and conflict level, which are different from the previous one, dyadic level of cooperation. Later, I introduce several

independent variables such as economic conditions, electoral cycles, support rates, power status, and social distribution of political powers.

Then, I discuss the sample selection. Although data availability forces me to rely on advanced industrialized democratic countries, the logic of the Most Similar System (MSS) design allows me to justify the sample selection. I introduce different methods of the model specification, separating cooperation, conflict, and net-cooperation. Finally, I discuss the statistical methodology for the Granger causality test, FGLS (Feasible Generalized Least Square) with PTS (Pooled Cross Sectional Time Series) analysis, and Time Series analysis.

In Chapter V, my empirical analyses are discussed in two different sections. The first examines the appropriateness of the concept of “net-cooperation” in reference to the result of Granger causality tests. This result tells whether the relationship between cooperation and conflict is mutually exclusive, mutually reinforcing, or irrelevant. Based on this finding of Granger causality, I proceed on to time series analysis with panel data to find any generalizable theoretical link between domestic factors and foreign policy behavior. Since there is huge variance between major and minor countries in terms of the amount of foreign policy engagement, I will also discuss any specific characteristics in the linkage between cooperation and domestic politics among my sample countries. Finally, the conclusion chapter discusses the contribution and future direction of cooperation studies.

## CHAPTER II

### LITERATURE REVIEW

#### Definition of Cooperation

There is some general agreement on the conceptual definition of cooperation (Stein, 1982; Milner 1992). That said, however, the details are still controversial. Keohane (1984) defines cooperation as occurring when actors adjust their behavior to the actual or anticipated preferences of others through a process of policy coordination. Policy coordination is when a state adjusts its policy in order to reduce negative consequences for other states. Despite the popularity of Keohane's definition (1984), there are discrepancies in its details.

Stein (1982) includes both collaboration and coordination as types of cooperation. Collaboration deals with the dilemma of common interest. Coordination deals with the dilemma of common aversion. Since both common interest and common aversion can create mutual benefit, it is inappropriate to exclude collaboration as a cooperative behavior. Keohane (1984) includes two critical elements of cooperation. Cooperation is a goal-oriented policy behavior, which is not necessarily symmetric for all participants. It does, however, need to be a rational behavior. Cooperation also provides participants with gains or rewards as a consequence of their behavior. Collaborative behavior meets both of these criteria, so there is no reason to exclude it from the cooperation category.

Groom (1990) defines cooperation as a set of relationships that are not based on coercion or compulsion, which are legitimized in an international

organization for the welfare of the collectivity or perceived self-interest.

Keohane (1984), on the other hand, includes tacit, negotiated, as well as imposed methods as ways of cooperation. Although Groom's definition of cooperation (1990) develops more details of a cooperative method, his elaboration results in the exclusion of possible categories of cooperation and ultimately provides a narrower definition and operationalization.

Milner's argument (1992) regarding the general agreement in the conceptualization of cooperation is justifiable because there are common factors among different definitions: intentional policy choices for mutual benefits through either collaboration or coordination. In this definition of cooperation, mutual benefit refers to both creating mutual benefit through collaboration process and avoiding mutually undesirable outcome through coordination process. This inclusive definition of cooperation is appropriate to perform empirical analysis. However, the critical point for empirical analysis is not a definition of cooperation. Instead, the operationalization of cooperation is more problematic. To this point, perhaps partly as a matter of convenience, cooperation has been intermixed with conflict in the existing data sets on these phenomena (Goldstein, 1991; Goldstein and Freeman, 1991; Goldstein and Pevehouse, 1997). This method of measuring cooperation does not coincide with the inclusive definition of cooperation.

#### Past Studies of International Cooperation

The scientific study of cooperation started with the research program of Axelrod (1980), which illustrates the efficiency and stability of the TFT strategy under the PD game in an effort to represent anarchic international

relationships. After Axelrod (1980), a majority of empirical studies used reciprocity as the single most important factor in the explanation of interstate cooperation. Reciprocity is simply an empirical substitution for the TFT, the simplest strategy, whereby an actor starts with a cooperative choice and thereafter does what the other player did on the previous move (Axelrod, 1980).

Thus far, the development of cooperation studies may be characterized as having taken place in three phases. The early phase consisted of several empirical studies based on Richardson's arms race model and reciprocity theory (Leng and Wheeler 1979; Cusack and Ward 1981; Majeski and Jones 1981; Ward, 1982; 1984; Freeman, 1983; Dixon, 1986; Ostrom and Marra 1986). The second phase emphasized methodological elaboration and complicated reciprocal relationships, such as trilateral or multilateral reciprocity (Goldstein 1991; Goldstein and Freeman 1991; Goldstein and Pevehouse 1997). The latest phase, which is still underway, pays more attention to domestic factors rather than focusing only on reciprocal factors external to the state (Knopf 1998; Leeds 1999).

Early cooperation studies concentrated on the theoretical justification of superpower behavior with TFT theory. The majority of research supported the existence of a reciprocal action-reaction in superpower relations during the Cold War (Leng and Wheeler, 1979; Ward, 1982; Freeman, 1983; Dixon, 1986). Others, however, proclaimed inverse reciprocity (Ward, 1984) or self-driven behavior (Cusack and Ward, 1981; Majeski and Jones, 1981; Ostrom and Marra, 1986). These inconsistent findings cried out for more empirical

tests to clarify the relationships between the reciprocal terms and domestic terms. The theoretical and methodological approaches of these studies are more controversial on the issue of reciprocity.

These early empirical analyses raise theoretical questions about the nature of cooperation and conflict behaviors. Ward (1982), for one, separates cooperation from conflict, and analyzes them separately as dependent variables. On the other hand, the empirical analyses with models combining conflict and cooperation indicate that they are substantially intermixed within national policy behavior. However, the comparison of two different model specifications indicated that these two kinds of foreign policy behavior were better explained by the separated model, because the statistical significance of the combined model was inferior to that achieved when the cooperation and conflict were run separately. Despite other theoretical discussions regarding the nature of cooperation and conflict behavior (Mansbach and Vasquez 1981; Vasquez and Mansbach 1984),<sup>1</sup> there have been no clear answers offered by this research on whether the two are better left separated or are best treated in one dimension, as in the concept of “net-cooperation.” The question of the cooperation-conflict relationship is an important starting point for further empirical analysis because it decides the treatment of the dependent variable.

The major emphasis of early empirical studies was to find any possible causal relationships of foreign policy behavior, relating to either reciprocal or TFT factors as compared to the alternative explanation provided by domestic

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<sup>1</sup> Mansbach and Vasquez (1981) and Vasquez and Mansbach (1984) emphasize the issue domains of cooperative behavior as a nation-state's behavior.

factors. A general problem of this type of early research is that it relied on Richardson's arms race model as an example of action-reaction between two competing actors (Majeski and Jones, 1981; Cusack and Ward, 1981; Ward, 1982; Dixon, 1986). Therefore, model specification on cooperative behavior is joined with conflict and cooperation. At its very essence, the Richardson arms race model relies on simple comparisons between reciprocal terms and domestic fatigue terms. The reciprocal terms are measured with the military expenditure of an opposite party, and the domestic fatigue term is measured with a country's own military expenditure (Majeski and Jones, 1981; Cusack and Ward, 1981; Ostrom and Marra 1986).

Reliance on the arms race model leads to theoretically inappropriate data selection. Empirical analyses have frequently been conducted on inappropriate data sets, which are related to the second problem. The majority of early studies employ military expenditure data (e.g., Cusack and Ward, 1981; Majeski and Jones, 1981; Ostrom and Marra, 1986). Though interesting for other reasons, such analyses are basically irrelevant to our understanding of cooperation. They only concern arms races, a subset of conflict behavior.

As Goldstein (1991) points out, the heavy reliance on overly simple analytical tools was another shortcoming in these early empirical studies. Leng and Wheeler (1979) used cross tabular analysis and Ordinary Least Square (OLS) Regression, Ward (1982) and Dixon (1986) used OLS regression, and Ostrom and Mara (1986) employ Generalized Least Square (GLS) Regression. Simple model specification procedures like OLS

regression can miss the dynamics in both event count data and military expenditure data, since these measurements are highly autocorrelated. Only Majeski and Jones (1981) used an advanced time series analysis with the Pierce-Haugh causality test procedure, which allows a researcher to consider the dynamic impacts of cooperation and conflict events across time and sections.

Unfortunately, though recent studies have been more sophisticated methodologically, some of the same very basic conceptual and theoretical issues remain unaddressed. Recent studies have fallen into the same trap of focusing on conflict relations or conflict-centered behavior instead of cooperative behavior (Goldstein 1991; Goldstein and Freeman 1990; 1991; Goldstein and Pevehouse 1997). The WEIS data collection has been concentrated on major conflictual areas around worlds such as Bosnia-Kosovo, Somalia, China, Haiti, Cuba, India, and Middle East (Goldstein and Pevehouse 1997). And theoretically they rely on the concept of “net-cooperation,” although Goldstein and Pevehouse (1997) employ time series analysis with sub-annual event count data.

Therefore, I will reject the established legitimacy of the “net-cooperation” and will separate cooperation and conflict after Granger causality test. Then I will analyze sub-annual cooperation measurement with respect to domestic political and economic dynamics.

#### Event Count Data

Later studies of cooperation have used event count data instead of arms race data, which represents only a part of cooperation. COPDAB (Azar

1982) and WEIS (McClelland 1978) are the most frequently employed event count data sets. However, recent empirical analyses are more likely to use WEIS and only employ COPDAB as a supplementary data source due to the different temporal domain. For example, Ward (1982) utilized the cooperation and conflict levels of six sample countries with COPDAB (Azar 1982) and WEIS (McClelland 1978) data sets, while Dixon (1986) employed COPDAB (Azar 1982).

Before discussing theoretical issues any further, it is worthwhile to review the event count data that have been used to tap the concept of cooperation and conflict. COPDAB and WEIS have been the most frequently employed event count data for the study of interstate cooperation. Both of these are daily dyadic measurements of conflict and cooperation events reported by major newspapers. The COPDAB data set covers 135 nations, international organizations, and nongovernmental agencies from 1948 to 1978 and collects reports from approximately seventy public sources. The COPDAB conflict/cooperation scale is an ordinal measurement of conflict and cooperation that covers different types of foreign policy behavior ranging from voluntary integration at one extreme to extensive war at the other. COPDAB covers 15 different types of foreign policy behaviors.

By comparison, the WEIS data set compiled by McClelland (1978) covers 243 nations, international organizations, and nongovernmental agencies from 1966 to the present. Unlike COPDAB, the WEIS data set offers a categorical measurement that consists of 22 nominal categories without any weighted ordering in terms of degree of cooperation and conflict. WEIS

adopts a word dictionary to measure daily events from the *New York Times* as a single source in order to minimize data noise resulting from multiple sources. However, use of the *New York Times* as a single source can be criticized as introducing a possible American bias (Goldstein 1992; and Reuveny and Kang, 1996). Later, the Kansas Event Data System (KEDS) projects coded international events with a machine coding technique, relying on the WEIS categories, and also diversified its sources with the Reuters News Service, which is available from NEXIS data service. Despite its shortcomings, WEIS is currently one of the most advanced event count data sets for interstate cooperation.

#### Development of Reciprocity Analyses

Recently, scholars investigating reciprocity have developed more sophisticated models of interstate cooperation. Although these models are still based on the realist understanding of interstate cooperation, they have clarified the causal direction of reciprocity relationships and have also enriched our understanding of the complexity from which interstate cooperation arises. This new understanding comes as a result of new findings of trilateral and multilateral reciprocity. Goldstein (1991) attempted to test the utility of reciprocity in analyzing superpowers' responses to one another's actions. In this study, and others, he employed the concept of reciprocity as the degree of change that one nation's actions induce in the actions of another in a positive and coincident direction (Dixon, 1986: 426). Goldstein (1991) used "net-cooperation" as the dependent variable, employing a measure that is derived from the weighted sum of all cooperative events in a

given period of time minus the weighted sum of all hostile acts. He developed a weighting scheme and applied it to event count data, COPDAB and WEIS.

Goldstein (1991) attributed the inconsistent findings from previous empirical analyses to the methods of data aggregation. He called this problem over-aggregation. Previous analyses aggregated daily events into annual schemes that missed dynamic features of daily events occurrences. Goldstein (1991) employed “sub-annual data aggregation” such as weekly and monthly schemes, applying his own weighting scheme to the sample of the Soviet-U.S. dyadic relationships during the Cold War period. Goldstein’s major sources of data were COPDAB (1953-1978), WEIS (1969-1982), and ASHLEY (1955-1968). He chose to use multiple data sets partly because each data set had a limited temporal domain.

Independent variables in this study were the actor’s own current “net-cooperation” scores and its partner’s previous “net-cooperation” scores. The logic of Goldstein’s (1991) empirical tests in this study is similar to that of previous analyses. Statistically significant positive coefficients of each partner’s previous “net-cooperation” score were interpreted as indicating the existence of reciprocal relationships in the superpowers’ cooperative behaviors.

In general, the positive relationship between its own past “net-cooperation” behavior and its partner’s past “net-cooperation” behavior yielded in this study confirmed the existence of action-reaction behavior, and led Goldstein (1991, 204-205) to conclude that there is no inverse reciprocal relationship, which is on the center of controversies in the early empirical

analyses. In addition, he discusses the issue of appropriate time lag with the results from the action-reaction model. In terms of an appropriate data aggregation to verify the action-reaction relationship, Goldstein (1991) argues that the statistical lag test verifies 30 days, 8 weeks, and 2-3 months as appropriate lags, which support his following claim concerning an over-aggregation problem in previous studies: superpowers' responses are at intervals shorter than one year. Goldstein (1991) contributes to the study of interstate cooperation by clarifying data aggregation issues and the controversial reciprocity argument from previous studies.

Later, the analyses by Goldstein and Freeman extend the application of reciprocity theory into new sets of dyads. Goldstein and Freeman (1991) include the Chinese case and analyze triadic reciprocity among China, Soviet Union, and the United States. Goldstein and Pevehouse (1997) analyze the Bosnia-conflict case between 1992 and 1995, in which more participants are included, and consider the importance of third-party reciprocity. Except for the inclusion of multiple participants in the analysis, the logic of this analysis is very similar to earlier empirical analyses such as Majeski and Jones (1981), Cusack and Ward (1981), Ward (1982), Dixon (1986) and Goldstein (1991). Following Richardson's arms race model, Goldstein and Pevehouse (1997) compare the statistical significance of the domestic and reciprocity terms' coefficients and find that reciprocity better explains the complex cooperation and conflict behaviors of three superpowers.

Goldstein and Freeman (1991) provide more complicated pictures of the superpowers reciprocal relationship with an inclusion of the Chinese case

with Granger causality tests informing at a dyadic level analysis. The findings support Goldstein (1991), in which current “net-cooperation” level is a positive function of a partner’s past level of “net-cooperation”. Some evidence supports the bureaucratic routine proposition. Other findings support the rational expectation proposition. These outcomes seem to indicate that a limited reciprocity prevails in the superpowers’ cooperative behavior. Goldstein and Freeman (1991) argue that compelling evidence in favor of the reciprocity proposition is present in the finding that China and the Soviet Union punish each other for cooperating with the United States, and reward each other for hostility against the United States.

Goldstein and Pevehouse (1997) expand the application of complicated multiple reciprocity argument, including 6 participants in their analysis with “net-cooperation” as a dependent variable. The statistical results lead them to conclude that the bilateral reciprocity existed and became stronger over time between international actors and Bosnia, as well as between Bosnia and Serbia. However, the inverse reciprocity does not appear in a dyadic relationship. The findings here too were supportive of the reciprocity argument made by Goldstein and Freeman (1991): current “net-cooperation” is positively correlated with partners’ past “net-cooperation” level.

One interesting finding of Goldstein and Freeman (1991) is the selective effect of triadic bullying. An actor selects a bullying target in order to maximize its interest based on the information regarding its weakest or strongest connections. For example, Serbian bullying no longer exists against international actors, since Serbian decision makers recognize that the

European Union and the United Nations would not respond to their bullying. In terms of triangular responses, the disaggregated models exhibit stronger bilateral reciprocity in both dyads: the international-Serb and the Serbian-Bosnian dyad. The disaggregated model supports Serbian triangular bullying against Bosnia across all periods of conflict. In other words, “net-cooperation” of the international community towards Serbia negatively affects subsequent “net-cooperation” by Serbia toward the Bosnian Government. Goldstein and Pevehouse (1997) contribute to the reciprocity theory by providing the elaboration of dyadic bullying, triadic reciprocity, and triadic bullying. These model specifications describe complicated relationships pertaining to conflict and cooperation on a single continuum.

Despite the different analyses of the multilateral reciprocity proposition, there still exists a controversy on this issue. Ward and Rajmaira (1992) find a meaningful discrepancy with Goldstein and Freeman (1991): a different treatment of their same variables results in opposite outcomes.<sup>2</sup> Ward and Rajmaira (1992) separate cooperation events from conflict events as dependent variables. While Goldstein (1991) and Goldstein and Freeman (1991) employ previous “net-cooperation” as an independent variable, Ward and Rajmaira (1992) include the target’s current behavior and the source’s previous behavior as independent variables, referring to these variables as the reciprocity term and the memory term, respectively. The reciprocity variable is not statistically significant, indicating that symmetric or TFT

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<sup>2</sup> Ward and Rajmaira (1992) include past value of its own behavior and current value of partner’s behavior as independent variables in the structural model and series of current and past values of its own and partners behavior in ECM.

processes do not occur, regardless of whether cooperation or conflict are the dependent variables.

An Error Correction Model (ECM) was used to test the reciprocity hypotheses, with the COPDAB and WEIS event count data covering the U.S.-Soviet relationship. The results show negative coefficients for the reciprocity variable. And the Full Information Maximum Likelihood (FIML) also confirms the outcome of ECM. Based on these outcomes, Ward and Rajmaira (1992) conclude that the self-memory of previous behavior is more important than reciprocity in the superpowers' relationships – a conclusion opposite that researched by Goldstein (1991) and Goldstein and Pevehouse (1997).

There is no doubt that reciprocity, combined with domestic memory, is one of the most significant factors that should be considered when examining foreign policy behavior, either conflict or cooperation policies. However, as the Ward and Rajmaira (1992) study shows, reciprocity theory does not explain the whole variety of outputs connected to national foreign policy decision-making.

Similarly, Cusack and Ward (1981) analyze the similar triadic superpowers' reciprocal relationships by making use of the military expenditure data. Their time series analysis of this relationship reveals that the independent variables combined together can explain 60% of the variance in the dependent variable, at best, and 47%, at worst. Generally speaking, the variables drawn from reciprocity theory can explain half of the variance in the dependent variable. Although Goldstein and Freeman (1991) find that the reciprocity variables are statistically significant with sub-annual aggregation, it

is still questionable how much of the variance can be explained by them. Although Goldstein and Pevehouse (1997) analyze six independent variables with respect to the reciprocal combinations, only two or three out of six independent variables are statistically significant. These findings are mixed, at best, indicating that reciprocity probably does not explain much of the variance in the dependent variable. Goldstein and Pevehouse (1997) do not report the amount of variance explained by each of the variables included in the models. As a result of the limited number of variables connected to the reciprocity arguments, which are evident even in the empirical results of those scholars who make reciprocity the center of their theoretical focus, I conclude that a consideration of domestic factors is also necessary in order to explain patterns in foreign policy behavior, particularly those that are cooperative.

#### Domestic Factors and Foreign Policy Behavior

There is an exciting new trend in recent empirical studies of interstate cooperation, even if it is in its initial phase. Emphasis on domestic factors is developing into an alternative approach that is based on the liberal approach,<sup>3</sup> as a reaction to empirical analyses that focus only on reciprocity theory (Knopf 1998; Leeds 1999). Unfortunately, their scope has been limited though some recent studies of reciprocity have also considered the effects of certain domestic conditions on the degree of conflict/cooperation evident in countries' foreign policies.

One such study by Goldstein (1995, 454) recognizes the importance of regime type for the analysis of reciprocal responses in China-U.S. relations. In

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<sup>3</sup> Milner (1992) argues that reciprocity approach is based on the realist approach in her classification of cooperation hypotheses.

order to control the domestic regime type factor, Goldstein (1995) includes China as a non-democratic case. Unfortunately, despite his mentioning the importance of regime type, the models in this study analyze only one exogenous variable: partners' previous behavior. Thus, it can be argued that this study is guilty of reductionism, ignoring numerous independent variables that are, in all likelihood, determinants of his net conflict/cooperation dependent variable.<sup>4</sup> Goldstein (1991) argues that the domestic factors should be excluded because they simply impede the statistical performance of other variable in his time series analysis. In the same study, Goldstein (1991) contends that domestic factors are not important because the reciprocity variable can explain cooperative behavior with statistical significance.

There is no reason to believe context variables are correlated with the pattern of response by either superpower. That is, such variables may help explain levels of cooperation or hostility (the dependent variable) but their omission will not affect reciprocity coefficients unless the contextual variable's effect is collinear with the included lagged behavioral variables within the short periods of aggregation studied here (Goldstein 1991, 201).

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<sup>4</sup> When a model excludes a relevant independent variable, the coefficient estimate will be biased and inconsistent unless the excluded independent variable is orthogonal with included independent variable. Even if they are orthogonal, the estimation of intercept will be biased and inconsistent and the estimate of the slope parameter will be unbiased but inconsistent (King, Keohane, and Verba 1994).

What he seems to forget is that without considering all possible relevant independent variables in a given model, the statistical outcome is at best biased and inefficient if the model excludes relevant independent variables. One of the goals of this dissertation is to demonstrate that Goldstein erred by not considering domestic variables, and that, as a result his statistical outcomes are indeed problematic.

Leeds' study (1999) is another of the relatively small number of studies that are attentive to the effects of domestic factors as conditions that affect the degree of interstate cooperation. This researcher's empirical analysis employs cooperative events from COPDAB (Azar, 1982), excluding hostile events as a dependent variable and joint regime type and joint economic compatibility as major independent variables from the Polity III data set (Jaggers and Gurr, 1996). When both states in a dyad get six or higher points on the ten-point Polity III democracy scale, the given dyad was coded as a joint democracy. The joint economic compatibility is measured with national income per capita as a percentage of the U. S. income per capita. Dyads in which both states have per capita incomes of at least 30 percent of the U. S. per capita income in the given year were coded as wealthy. The study also controls for economic development, itself a domestic variable, as well as system stability, and whether the two countries share an alliance as statistical controls. The data covers politically relevant countries from Maoz (1996)<sup>5</sup> from 1953 to 1978 with the unit of analysis being the dyad-year.

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<sup>5</sup> Maoz (1996) has selected states which are likely to have reason to interact, in defining each state's Politically Relevant International Environment (PRIE) to include all contiguous states and all major and regional powers.

Leeds (1999) argues, using a variety of different statistical methods, that joint regime types and joint economic comparability are all positively related to cooperative behavior. Despite the argument by Leeds (1999), there is no substantial difference between homogeneity and heterogeneity of joint regime type because all regime type variables yield positive coefficients significant at better than the .001 level of inference. At the same time, all other variables get positive coefficients. In her conclusion, Leeds (1999) theoretically separates different forces within institutional development such as accountability and flexibility of systemic adjustment based on democratic peace theory, and argues that high accountability and the low flexibility encourage international commitments.<sup>6</sup> However, the statistical tests do not incorporate these characteristics in the model specifications.

These results, however, may have fallen prey to Goldstein's convincing critique of studies focusing on the country year as a unit of analysis as being over-aggregated (1991). The annual aggregation of the data, in effect, discards the statistical variance in the independent and dependent variables occurring within each year. However, there are tradeoffs between sub-annual dynamics without domestic factors and annual data with more domestic independent variables. When a model employs a sub-annual observation as a unit of analysis, the model can specify a dynamic reciprocal relation, but only

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<sup>6</sup> According to Leeds (1999), accountability refers to the degree to which state leaders are held accountable by a domestic population for their action and flexibility means the degree to which state leaders alter formed and instituted agreement. In general, democratic states might be characterized more accountability and less flexibility than autocratic states. Democratic leaders have much less flexibility to alter policy dramatically than do their autocratic counterparts because democratic decision-making process is featured by check and balances that reduce the speed and ease with which states can reverse major foreign policy commitments.

with the previous behaviors. In contrast, a model with annual observation can miss dynamic reciprocity in terms of model specification, but it can capture other relevant independent variables that are disregarded in the time series reciprocity analysis.

Knopf (1998) also considers domestic factors that affect interstate cooperation and in particular the cooperation connected with the limitation of nuclear weapons between the U.S. and the USSR. Interstate cooperation as the dependent variable is measured dichotomously, presence or absence of offers of formal negotiations through Talks on Test Bans and Strategic Arms Limitation (SALT) in a given quarter. This measurement scheme narrows its scope of cooperation relative to COPDAB and WEIS because “offer” or “request” is only one category in these more general events data sets. As the author notices, the problem with measuring cooperation this way is that one cannot consider the outcome of ‘proposal’ or ‘offer,’ and ‘agreement’ or ‘failure’ in a given event. This type of problem is one that is present in the COPDAB and WEIS, which do track the eventual outcomes of these verbal expressions.

The independent variable, amount of anti-nuclear weapons protests, is measured with the frequency of stories found in the *New York Times* Index. The model also utilizes relevant control variables such as balance of military capability, the state of political relations between the adversaries, and the political leadership exercised by heads of state. The result of the multivariate logistic time series analysis indicates that while the previous level of Soviet cooperation has no impact on current American cooperation, the occurrence

of domestic protests significantly influences interstate cooperation.

Interestingly, the model also controls for domestic economic variables such as inflation rates and unemployment rates. These domestic economic factors are not shown to have any significant impacts on interstate cooperation, which focuses on a very specific type of cooperation dealing with the control of nuclear weapons by two superpowers. A variable connected to warhead parity is also shown to be statistically insignificant.

The major contribution of Knopf (1998) is his emphasis on the strength of domestic activists and his discovery of the statistical significance of anti-war protest. This finding indicates that public opinion may also be an important factor in determining degrees of interstate cooperation, which is contrary to the arguments of reciprocity theorists (Goldstein 1991; Goldstein and Freeman 1991; Goldstein and Pevehouse 1997). Although there are limitations to the empirical test in Knopf (1998), these limitations are not as great as those of studies adopting the reciprocity approaches with COPDAB and WEIS. Both the reciprocity approach and impact of public opinion by Knopf (1998) cannot trace the outcome of cooperative policy agreement in the cases of proposals, offers, and suggestions. Even if the sample cases only cover superpower relations between the U.S. and the Soviet Union, the consideration of economic and political measurement at quarterly intervals displays another contribution to the study of cooperation, remedying the tendency of the previous reciprocity studies to disregard domestic factors altogether.

The analysis of foreign policy behaviors as being reciprocal stems from a realist perspective in general, and is related to the arms race model in particular. Owing to the limited number of independent variables, such as its own past behavior and partners' current or past behavior, reciprocity analysis can utilize a parsimonious model specification with time series data. However, either intentionally or unintentionally, this approach has disregarded domestic factors that lead to interstate cooperation. If a researcher admits that interstate cooperation is also a part of foreign policies, the study of interstate cooperation requires multiple perspectives with domestic factors. This is because foreign policy is the outcome of domestic socio, political, and economic dynamics. There are a number of theories of interstate cooperation which emphasize the importance of domestic factors: democratic peace theory (Maoz and Russett 1993; Russett 1993), diversionary theory (Morgan and Bickers 1992; Levy 1993; Meernik and Waterman 1996), two-level game theory (Putnam 1988; McGinnis and Williams 1993), public opinion in foreign policy (Holsti 1996; Allison and Zelikow 1999), political economy in comparative politics (Gourevitch 1978; Katzenstein 1985; Haggard 1990). A common factor among seemingly different approaches is related to the basic assumptions of nation-states' international behavior: foreign policy outcomes are the results of domestic politics among different socio-political groups rather than external factors. Of course, some of these theories pay attention to inverse relationships: foreign influence on domestic policy (Gourevitch 1978). Nevertheless, they recognize that domestic and international forces

combine to determine foreign policy outcomes and that any approach that focuses on one or the other is inadequate.

By way of summary and conclusions, my research in this dissertation will address the main problems I have identified in reciprocity analysis and it will try to extend the scope of cooperation studies in ways that will add significantly to our knowledge of why nation-state governments choose to cooperate. Among the problems I have identified, first, is that there are problems with the principal assumptions of reciprocity theory. Reciprocity theory seems appropriate in the study of arms races and where a mutual threat situation exists among nations of roughly comparable military capability (Singer, 1958). Conflict relations with mutual threat presuppose a possible enemy or traditional rivalry; thus, it is reactive between source and target in its nature. Cooperation, here, is based on a multilateral relationship. This notion of action-reaction is incompatible with the reciprocity of interstate cooperation because cooperation is for mutual benefit through either collaboration or coordination, regardless of power comparability and rivalry. However, previous empirical studies simply extend the same logic of conflict reciprocity to cooperative reciprocity by measuring cooperation events as a substitute for the military expenditure data.

In order to address this issue, in this study I will assume that although cooperation and conflict policies are types of foreign policies designed to maximize national interests, cooperation is not related to conflict reciprocity. Therefore, separation of cooperation and conflict is a way of following theoretical conceptualization of cooperation. Even though previous studies

have tried to separate these two different domains of foreign policies, there are few empirical analyses with sub-annual aggregation, which can allow me to analyze the dynamics of cooperative events.

The conceptually incorrect specifications used to date, I believe, can lead to incorrect model specification, erroneous statistical inference, inaccurate and therefore, inadequate interpretation. If a research design accepts the assumption that the nature of conflict and cooperation follow the reciprocity theory with “net-cooperation” as a dependent variable, it suffers from a serious logical flaw.

The second problem is related to the concept of “net-cooperation.” “Net-cooperation” has been thought of as a neat way of operationalizing the concept from the perspective of methodological convenience because it removes any possible noise from mixture of cooperation and conflict in the event count data. This research design does not accept this measure, instead treating the question of what is the best measure of this concept as an open question that should be determined by empirics and theory. Goldstein (1992, 370) also mentions that cooperation and conflict do not exist in a single continuum; he treats cooperation and conflict as if they are in a single continuum (Goldstein and Freeman 1990; Goldstein 1991; Goldstein 1995; Goldstein and Pevehouse 1997). Here, however, I will treat both cooperation and conflict as separate and distinct foreign policy tools. Thus, they can be employed at the same time, toward the same target, and by the same decision-maker, for different purposes.

The treatment of cooperation and conflict within a single continuum is based on an inappropriate understanding of cooperation behavior. As multilateral reciprocity analyses (Goldstein and Freeman 1991; Goldstein and Pevehouse 1997) indicates, cooperation and conflict relationships do not have any designated directions. In other words, modification of the American stance toward China during the *détente* period might affect not only the Soviet response to the United States, but also the Japanese response to North Korea and the South Korean response to North Korea, which is not included in the sample of Goldstein and Freeman (1991). This means that dyadic reciprocity may have self-imposed limitations according to the number of sample countries. Hence, a better method is to aggregate the total cooperation events involving a given country in a given period of time in order to measure its dynamic cooperation level. This measurement of general cooperation can capture more multilateral cooperation events than the simple accumulation of dyadic cooperation events. I believe this method can improve the validity of the cooperation measurement.

Finally, since reciprocity theory alone can only explain about half of the variance in the dependent variable (Cusack and Ward 1981), there must be other relevant independent variables sets that might explain more variance in the dependent variable, cooperation level. Domestic political and economic conditions are possible candidates for further explanation of cooperation event occurrence. There is a list of domestic variables that might impede or facilitate reciprocal responses. Domestic political dynamics include electoral

cycles and decision-makers' approval rates, and socio-economic conditions include the price index, employment rates, and GDP deflators.

This research will measure cooperation and conflict levels separately as dependent variables, and will tap the general cooperation level toward all foreign policy partners instead of separated dyadic measurement of cooperative and conflict events. A final contribution of this research is to measure cooperation and conflict as described above, while analyzing various domestic factors with sub-annual data aggregation, which follows the methodological suggestions of Goldstein (1992).

## CHAPTER III

### THEORY AND HYPOTHESES OF INTERSTATE COOPERATION

#### Introduction

This chapter examines the theoretical foundations of various testable hypotheses related to interstate cooperation. The first section reconceptualizes the nature of the relationship between conflict and cooperation because the concept of “net-cooperation” has been combined and rendered unclear, rather than conceptually separated and clarified, on previous literature. The relationship part of the dissertation will empirically test the nature of cooperation and conflict events. Thus it will clarify whether conflict and cooperation are mutually exclusive, mutually reinforcing, or irrelevant to one another.

The second part will discuss major domestic factors that might affect interstate cooperation. These domestic factors are political and economic dynamics and the capability status of a country. The domestic factors are derived from prominent theories in international relations studies. Diversionary theory (Morgan and Bickers 1992) and two-level game theory (Putnam 1988) share a common theoretical assumption that underlies my hypotheses regarding the domestic political and economic conditions for interstate cooperation. State-in-society theory (Gourevitch 1978) and two-level game theory focus on how the distribution of political power and domestic institutional arrangements among social sectors influence cooperation behavior. These theoretical arguments derive four different testable hypotheses, which supplement the missing part of previous literature of

diversionary use of force theory as well as TFT approach to interstate cooperation.

### The Relationship between Cooperation and Conflict

Before developing a theory, I must address the basic definitional question about interstate cooperation. The question introduced earlier is whether cooperation and conflict are separated or combined in the reality of international relations. Like other controversial issues, the question brings together two opposite arguments. Some scholars argue that conflict and cooperation seem to be separated, but indirectly related, on any given issue (Rummel, 1972; Park and Ward 1979). Conversely, cooperation and conflict are sometimes recognized as mutually exclusive events (Boulding, 1963; Rummel, 1971; Kegley, 1973; Platter and Mayer 1989). However, Ward (1981) argues based on previous empirical findings that show strong positive relationships that conflict and cooperation do not appear to be in an orthogonal mode (Russett, 1967; Park and Ward 1979).

Goldstein (1992) seems to follow the basic conceptual framework of the WEIS measurement, which explicitly denies the possibility of reducing data to one dimension of conflict and cooperation by adopting a categorical measurement<sup>1</sup>. The weighting scheme for WEIS (Goldstein 1992) works in the opposite way of his definition because the multiplying each event by weighting value according to its degree of cooperation makes the categorical measurement to ordering measurement. Hence, the concept of “net-cooperation” assumes the orthogonal nature of cooperation and conflict

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<sup>1</sup> Goldstein (1992) weighting scheme is available in Appendix C.

events in a single continuum as far as the “net-cooperation” is calculated as the sum of weighed cooperation events minus the sum of weighed conflict events.

Despite unresolved controversies in the conceptual definition of cooperation and conflict, current empirical studies admit that both events seem to be mutually exclusive. Here, however, I argue that the diametric arrangement of cooperation and conflict (Wilkenfeld 1968) should be subject to a theoretical justification rather than merely being assumed for methodological convenience.<sup>2</sup> Helpful in this theoretical effort will be a review of theoretical discussions that have taken place in the field of peace studies. Peace studies has developed a definition of peace by placing it opposite to violence. Although there have been definitional debates, a majority of peace scholars accept the negative definition of peace, in which absence of violence or violent conflict means peace.<sup>3</sup> According to the definition shared by a majority of peace studies scholars, peace is mutually exclusive to violent conflicts.

If these conceptual definitions of peace and violent conflict are appropriate, they contradict the conceptual and empirical treatment of conflict and cooperation made by cooperation studies, seeing as how they simply substitute the concept of peace for cooperation. While peace studies tend to

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<sup>2</sup> Wilkenfeld (1968) argues that cooperation and conflict events are distributed along the two axes of coordinates according to the degree of hostility-friendship, which is a supportive statistical result of “mutual exclusiveness” of conflict and cooperation.

<sup>3</sup> While “negative peace” by Boulding (1978) defines peace as absence of violence, “positive peace” by Galtung (1969) defines peace as presence of justice as well as absence of violence. However, both definitions agree that peace is supposed to include the absence of violence, the controversial part is whether the definition of peace is encompassing presence of social and economic justice. Additionally, most of empirical analyses of peace studies tend to accept the definition of “negative peace.”

arrange peace and violent conflicts at opposite extremes in a single continuum, cooperation studies does the same with *cooperation* and violent conflict. Unless we can think through a theoretical linkage between these concepts, the concept of peace has nowhere to go under the definitional scheme of cooperation studies. This point exposes the underlying difficulty regarding the definition of cooperation and conflict: whether they are mutually exclusive, mutually reinforcing or irrelevant to each other.

This conceptual question about cooperation and conflict addresses the following two research questions. First, is there a relationship between cooperation and conflict? The second question regards the directions of relationship, if any. If these events are mutually exclusive in their nature, the presence of one type of event means the absence of the other, which means the correlation coefficients should be negative. Otherwise, there could be a positive correlation between conflict and cooperation, which would mean that more frequent observation of one type of behavior would result in the greater observations of the other. Both a result of positive correlation and a result of no correlation would dispute the current combined treatment of cooperation and conflict because only negative correlation can be consistent with their treatment on single continuum.

This conceptual reframing is a starting point for the empirical measurement of cooperation analysis. Based on this separation of cooperation and conflict, this research hypothesizes the following.

*H1-1: The presence of more conflict in the foreign policy in a given country toward the rest of the world will result in more cooperation emanating from the same country.*

*H1-2: The presence of more cooperation in the foreign policy in a given country toward the rest of the world will result in more conflicts emanating from the same country.*

In order to test empirically these hypotheses, Granger causality testing is an appropriate method because it is one of the few empirical methods that can handle the difficult theoretical and empirical standard of causality. Causality in theoretical standards of scientific inference can be defined as the difference between systematic components of observation when an independent variable takes one value and systematic components of comparable observation when independent variable takes another value (King, Keohane, and Verba, 1994).

Granger causality, as a substitution for empirical analysis, will be employed for my hypotheses of cooperation and conflict. According to Freeman (1983), a variable X is said to “Granger cause” another variable Y, if Y can better be predicted from the past values of X and Y together than the past value of Y alone. Since the concept of Granger causality is based on a criterion of incremental forecasting value, it is different from the concept of causality in scientific standards. Although there is a gap between the theoretical definition and the empirical definition of causality, Granger

causality can be a more rigid method with which to test a possible causal relationship between relevant factors.

In general, causality requires several sophisticated conditions: the cause and effect must change together, cause must precede effect, there must be an identifiable causal linkage between cause and effect, and finally, there must not be simultaneous covariance by some third factors. If these conditions are not satisfied, it leads to spurious relationship problems such as indirect causation and multiple causations.

Among these requirements, “causality” in theoretical and empirical standards presupposes that causal factors must be exogenous in order to claim that one factor causes or “Granger causes” the other, which means endogenous factors are easily expected to have built-in causal relationships to one another. To follow along with this line of reasoning, cooperation and conflict are expected to have embedded causal relationship because they are endogenous. For this reason, the Granger causality test is an appropriate substitution for testing the nature of cooperation and conflict.

Goertz and Regan (1997, 324) argue that some cooperative events are precisely what are causally related to changes in the medium-term outcome of conflict relationships. Agreement with an adversary is considered by them to be a cooperative event because agreement results from a conflict relationship that requires a mediation or negotiation (Goertz and Regan 1997). Therefore, they argue that the concept of “net-cooperation,” cooperation minus conflict (Goldstein, 1992), is an appropriate measure for capturing the abstruseness of cooperation since it excludes conflict events from cooperative events.

This type of logical contention only takes into account one dimension of the dynamic relationship between cooperation and conflict. In the coordination game, where participants try to avoid a common aversion, the conflicting participants will need more cooperative events in order to adjust their behavior. These adjustment behaviors in the coordination game may include negotiations, offers, or proposals as methods of policy adjustment, all of which appear in the WEIS coding scheme.

Another causal relationship is also possible. Cooperative events such as coordination and collaboration necessarily involve some failures in policy adjustment. Singer and Small (1982) argue that the increasing number of international actors contributes to a greater chance of interstate conflicts. This logic is also applicable to the occurrence of conflictual and cooperative events. When an actor engages in various cooperative actions, it automatically increases the possibility of conflicts and vice versa.

A case example between superpowers will more clearly describe the relationship between cooperation and conflict. Since the Nixon administration began official diplomacy with the People's Republic of China, there has been dramatic development of cooperative events in the U. S. - China relations. At the same time, there have been an equal amount of conflictual events as the cooperation events grow in Sino-American diplomacy. The copyright issue is of the most controversial in the U.S.-China trade relationships. The United States has protested Chinese violation of American copyrights in the Chinese market almost every year from early 1990s. It took several years for the United States and China to reach a copyright agreement in February 1995,

mostly due to the Chinese procrastination. Since the Chinese government has not seriously enforced the agreement in its domestic software market, the United States has forced the Chinese government to abide by the agreement with various conflictual and cooperative policy measures such as cancellation of MFN status extension, institution of a retaliatory tariff on Chinese exporting goods, and issuance of an official request for domestic regulation against illegal software companies.<sup>4</sup> The cooperative agreement on copyright issue between the U.S. and China has been followed by various measures of verbal threatening and counter-threatening as well as actual retaliatory tariff policies by the United States, which is inclusive and long-term policy tools against China. Since it covers various export goods from China such as textile products, steel products, electronic and home appliances, it is regarded as a serious conflict policy by Chinese decision makers. After ensuing policies of cooperation and conflict by the United States, Chinese government has adopted a lukewarm measure to regulate the illegal software market in China. This type of a nip-and-tuck policy application is continuing for both parties to maximize their own national interest.

As this example shows, a causal link in the other direction is also possible. Cooperation that has been present in the official diplomacy between the U.S. and China, has led to more conflicts, namely copyright issues. In addition, conflict around the copyright issue causes both further conflict and cooperation since the U. S. make use of threat and negotiation at the same time in order to preserve its interest in the Chinese market.

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<sup>4</sup> *Hankyoreh*. May 4, 1998.

This example could be explained using Boulding's (1963) early work about the relationship between conflict and cooperation. When an international actor faces external stimuli, the actor can respond to the initial threat in four ways: submission, defiance, counter-threat and integrative response (Boulding 1963, 426). While submission seems not to result in another conflict response to an initial threat, defiance and counter-threat are normally followed by another threat between the relevant parties. However, Boulding (1963) argues that an integrative response is combined with any one of the first three responses and that it prevails over the conflict relationship. Submission could be integrated into a larger culture; defiance also might be merged with an integrative system; and even counter-threats could possibly end up with a cooperative outcome if carefully managed by both sides in the conflict.<sup>5</sup> The key issue is that the relationships among human beings are less likely to be conflict-oriented. Ultimate victory of an integrative system over a system based on threat is assured by the fact that more good than harm can be done through cooperative policy. While doing harm has a limit of total destruction, or zero good, doing good has no definite upper limit (Boulding 1963 432). As long as these logical assumptions hold, the relationship between conflict and cooperation is not mutually exclusive.

On the other hand, conflict might also be possibly correlated with cooperation. As seen in various interstate or intrastate conflicts, conflictual parties need to work through various cooperation processes such as

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<sup>5</sup> Boulding (1963) argues that the threatened party, by defying the threatener and by accepting the consequence without bitterness or complaint, eventually undermines the morale of the threatener and the threat system disintegrated and presents examples of the Gandhi's non-violent disobedience and the abolition of American slavery system.

mediation, arbitration, or negotiation. Based on this logic, this research design assumes that both directions of causality are possible. As Keohane (1984) argues, cooperation would not be a valuable option in situations where actors perceive that their policies are in harmony. Therefore, I will test both directions of the causal arrows. As I mentioned before, the most important dimension of the “Granger causality” test is whether the causality of both directions is positive or negative.

The results of the Granger causality test will present a different picture concerning the specification of cooperative relationships from what has been present in the cooperation research conducted to date. If statistically significant and negative causal relationships are present, I will place the “net-cooperation” on the right hand side of the equation. Otherwise, I will separate cooperation from conflict. Instead of relying on the concept of “net-cooperation”, my hypotheses will be based on the assumption that cooperation and conflict are independent policy tools used to maximize national interests. This means that a nation-state can rely on both cooperative and conflictual policies toward the same actor, on the same issue, at the same time. This is a common perceptual assumption in various conceptual discussions (Mansbach and Vasquez, 1981; Ward, 1981; Vasquez and Mansbach, 1984) as well as in empirical analyses (Ward and Rajmaira, 1992; Knopf, 1998; Leeds, 1999).

The unit of analysis with which to observe cooperation events differs in empirical analysis is also a controversial issue in the empirical analysis of cooperative events. The cooperation studies conducted to date employ the

dyadic level of cooperation events as the unit of analysis. I think this is another remnant of the arms race and disarmament studies that applied realist perspectives and game theoretic approaches of two-player game. In disarmament, the dyadic level of cooperative agreement would be suitable for theoretical argument because arms races are limited to dyadic rivalry countries. However, interstate cooperation is different from disarmament because it involves multiple players at the same time. Therefore, it does not necessarily engage a two-actor game situation: the international regime or international community involves various actors on a given issue; the direction of actions is not necessarily reactive in nature; and there is the inclusion of various actors of all actions in different directions.

During the Uruguay Round, the Clinton Administration engaged in verbal conflict with the Korean and Japanese governments in order to urge their adoption of free trade policies on agricultural products.<sup>6</sup> The Japanese government made use of cooperation policy with the Korean government in order to protect the Japanese domestic agricultural industry at the initial stage of the negotiation process. The Japanese government gave upon the domestic agricultural industry, conceded the American request of free trade on agricultural products, and started to negotiate better conditions for its industrial goods. Although the Korean government and public blamed the Japanese unilateral policy change at first, the Korean government eventually adopted the same strategy; saving its industrial sector at the cost of its agricultural sector.

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<sup>6</sup> *Hankyoreh*, December 15, 1993.

This kind of multilateral cooperation appears not only in the context of international economic issues but also in military security issues. Just before the Iraqi War, the Bush Administration searched for international support for its military action against Iraq. However, a majority of powerful industrialized countries such as France, Germany, and Russia opposed unilateral military action by the U. S. without international endorsement.<sup>7</sup> Facing international objection, the U. S. established more cooperative relationships with supportive countries such as the United Kingdom, Spain, and Australia while it concurrently engaged in conflictual foreign action toward France and Germany.

As these two examples show, cooperation and conflict relationships are neither dyadic nor reactive when one observes cooperation and conflict events by the same actors along different issue domains. Therefore, the dyadic level of cooperation and conflict events cannot be the only method of measurement. Instead, the proper unit of analysis must be a state-centered measurement of cooperative and conflictual events, with which one can measure all of the possible conflict and cooperation policies a country can use to respond to relevant political participants in a given policy issue in a given period time. The strength of the state-centered measurement is that it can incorporate all possible reactions toward the rest of the world when a country faces critical international events, either cooperative or conflictual.

#### State Capability as a Source of Foreign Policy Behavior

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<sup>7</sup> *Munhwa Ilbo*. April 24, 2003.

A starting point of this research is the premise that various factors that have emerged in the study of conflict behavior are also applicable to the explanation of interstate cooperative behavior, as long as it is true that both cooperation and conflict are sorts of national foreign policy chosen to maximize national interest in a given country. Based on this assumption, the willingness and opportunity framework can provide an explanation with the occurrence of foreign policy through which one can evaluate interstate cooperation.

Most and Starr (1989, 21-22) argue that “opportunity” and “willingness,” which were initially designed to explain national conflict behavior, cover both macro and micro approaches to the study of international relations at the nation-state level. As the authors intended, this conceptual framework is applicable not only to conflictual behavior, but also to foreign policy behavior more generally. Opportunity represents the total set of a country’s environmental constraints and possibilities, and willingness refers to a state’s intention to employ available capabilities to further certain policy options over others. Capability makes some actions possible (opportunity) and at the same time makes some actions more attractive and others less attractive (willingness) (Most and Starr 1989, 45).

In terms of a general theory of international political economy, national capability is an integral part of foreign policy. National capability has been treated as an explanatory variable for individual state behavior in conflict studies. Structural realists emphasize the distribution of national capabilities as an overarching structure that regulates individual behavior. However, this

research does not consider the systemic arrangement of capability distribution. Instead, it approaches national capability as a factor of opportunity in the process of decision-making.

Opportunity includes various factors that affect the conflict involvement in a given country. These factors are distributions of capability, alliance patterns, intergovernmental organization membership, and what I think are other systemic variables that are also meaningful explanatory factors for cooperative behavior. The concept of willingness is more complex than that of opportunity because it deals with a variety of socio-psychological, perceptual, informational processes by which humans perceive their environment. The willingness to choose a foreign policy is based on perception, which can be relatively accurate or distorted and on selective perception of reality in a given relationship. These perceptual processes are the outcome of subjective cognitions such as displacement, defensiveness, prejudice, conformity, or obedience (Most and Starr 1989, 29-35). Although concepts of opportunity and willingness are theoretically proper concepts to analyze foreign policy outcomes, it is not easy to measure willingness and opportunity with a valid empirical indicator(s), particularly willingness.

The conceptual framework and empirical limitation of selecting appropriate indicators signify that capability can serve as a substitution for opportunity and that willingness and opportunity are interrelated. Thus, capability is a variable that, in all probability, affects cooperative behavior in a given nation-state.

An application of the opportunity and willingness framework to cooperative behavior can be an inappropriate treatment because one indicator, capability status, can encompass the intricate theoretical concept of opportunity and willingness. However, this approach of one indicator attempts to examine the application of the opportunity and willingness framework to cooperative behavior. A nation-state can utilize its capability not only for war participation but also for other types of foreign policy such as the initiation of cooperation.

There is a good theoretical example of how capability works in policy choice process. Katzenstein (1995) explains the differences of national policy adjustment along domestic socio-economic conditions when a state faces external economic shocks. Unlike the strong state, which can manipulate the direction of globalization, the small state is unable to do so due to a lack of resources. This assumption is related to state strength, which is a major component in the realist perspective because state capability matters in terms of response patterns to external shocks. However, Katzenstein (1995) investigates major factors of policy adjustment from domestic political dynamics. Owing to the relative lack of national resources, small states, when dealing with external shock, generally rely on liberal economic policies with domestic flexibility.

Along these lines, Katzenstein (1985) emphasizes that cooperation, harmony, stability, and policy effectiveness in internal adjustment lead to globalization. In other words, policy outcome is a product of domestic adjustment processes among various societal groups as long as the domestic

economic policies of small states are externalized and accumulated in the world economy. National capability also affects adjustment policy. Small states' relative dearth of national resources, I argue, will tend to increase their effort through collaboration or coordination. In contrast, the major states, I believe, will try to change current interstate relations in a way that behooves their own national interests, which ultimately results in reliance on more conflictual behavior. Accordingly, I pose the following two hypotheses:.

*H2-1: In terms of capability, major countries are more likely to rely on conflict behavior when facing domestic policy failure;*

*H2-2: In terms of capability, minor countries are more likely to rely on cooperative behavior when facing domestic policy failure.*

Although all countries can employ conflictual and cooperative behavior in order to maximize their utility, conflictual behavior is more expensive than cooperative behavior. Therefore, conflictual behavior is a less available option for minor powers than for major powers.

#### The Domestic Distribution of Power among Economic Sectors as a Source of Foreign Policy Behavior

The linkage between domestic politics and international relations is something that warrants academic attention. Many theories emphasize the importance of domestic and interstate interactions, or try to find causal relationships between them: democratic peace theory (Maoz and Russett

1993; Russett 1993), two-level game theory (Putnam 1988; McGinnis and Williams 1993), diversionary theory (Morgan and Bickers 1992; Levy 1993), political economy (Gourevitch 1978; Katzenstein 1985), and public opinion study in foreign policy decision-making (Holsti 1996; Wittkopf 1994; Allison and Zelikow 1999) as found in Putnam (1988, 430-433). All of these theories are currently active and frequent research topics in international relations. Some of them focus on conflictual behavior, such as democratic peace theory and diversionary theory. Some of them focus on international political economy, instead of pure conflictual behavior (Katzenstein 1985; Keohane and Milner, 1996).<sup>8</sup> And, some of them are inclusive enough to apply different policy areas of either conflictual or cooperative behavior (Putnam, 1988; Holsti, 1996; Allison and Zelikow, 1999).<sup>9</sup> In contradiction to realist approaches that have traditionally dominated the study of international relations,<sup>10</sup> recent research argues the importance of domestic factors and the linkage between domestic and international politics. In mediation studies of interstate and intrastate conflict, there is widespread agreement on the causal relationship between negotiation or mediation for disputes as a type of cooperative event and domestic hardship in politics and economics (Greig 2001).

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<sup>8</sup> This category emphasizes the domestic political adjustment process in facing international environmental changes as an external shock. There are other literatures dealing with a pathway of political development with respect to external change and domestic change (Rueschemeyer, Stephens and Stephens, 1992).

<sup>9</sup> Bureaucratic politics model by Allison and Zelikow (1999) is based on the assumption that policy is the output of politics such as bargaining, accommodation, and compromising and considering the domestic political process between administration and congress and elections as possible explanatory variables for foreign policy outcomes.

<sup>10</sup> Although Mastanduno (1999) provides revised interpretation of realist international relations, the basic understanding is not much different from traditional one: competitive nature.

Putnam (1988) reaffirms the linkage between domestic and interstate politics as a *fait accompli*. The only meaningful questions are when and how these two political arenas interact. As a metaphor, Putnam (1988) delineates the “two-level game,” in which foreign policy decision-making can be conceived. The domestic level game concerns competing domestic groups maximizing their interests. The international level game relates to a negotiation process in which all participants try to satisfy domestic pressure while minimizing the adverse consequences of international relations. Two-level game theory hypothesizes the conditions for the negotiated agreement. Since the negotiator’s strategy at the international level game centers on the individual leaders and the specific issue domain, it is hard to include the strategic factor in the analysis of interstate cooperation at the accumulated level. More important factors related to interstate cooperation are related to power dynamics among domestic groups. Putnam (1988) argues that the relative size of isolationists and internationalists affects the policy outcomes of negotiated agreement, which means that the distribution of domestic political power among social groups and their preference are critical determinants for outcomes of political process such as ratification.

Since interstate cooperation has been observed more frequently and earlier in the realm of international economic issues as compared to military issues, a similar explanation has been developed in the theory of political economy. Political economy theory assumes that trade policy is an outcome of domestic politics among various social groups, such as businesses, labor, and the state. State autonomy and the relative strength between labor and

business are major factors which determine the variation of economic policies. Literature in political economy provides us with the first image of international and domestic linkage: international change as an independent variable affects domestic political institutional arrangements and policy adjustment. As long as the state, business, and labor remain central actors in domestic politics and compete with each other for their own interests and political strength, the increased strength by one actor will necessarily leads to the weakness of other actors. In this context, political economic policy is much more contentious relative to national security policy in the domestic realm. While national security policy is a sort of valance issue that witnesses little disagreement, political economic policy is sensitive to different socio-economic groups.

Thus, it is worthwhile to review the divergent approaches used in studies of political economy, which analyze the connection between domestic and international politics (Gourevitch 1978; Katzenstein 1985; Keohane and Milner 1996). International developments might affect the domestic coalitions that influence domestic politics (Milner and Keohane 1996), as the “Second Image Reversed” explanation argues. This academic tradition of political economy has developed in two main streams. One of them pays more attention to societal and economic class factors (Rogowski 1989; Alvarez, Garrett, and Lange 1991). The other exemplified by Katzenstein (1978) and Hall (1986) emphasizes the development of political institutions.

Political institutions and power distribution among social classes are not separate entities; rather, they are interdependent mirror images of socio-

political dynamics in a given society. The strength or size of a political institution is decided by the social classes or groups that support its political goals and causes. Garrett and Lange (1986) argue that the policy success of ideological parties depends on compatible social constellations. For example, the labor party succeeds when labor as a social class is strong and centrally organized, while the right wing party can better succeed with weaker and more fragmented labor.

Katzenstein (1985) is concerned with how the state adjusts economic policies in reaction to the external shock of globalization's effect on state autonomy with respect to other social groups such as the strength of business and labor groups. Social coalition theory and state autonomy theory shed light on different dimensions of the same factors of distribution of power among classes with different emphasis because the strength of the state, business, and labor is relative. Katzenstein (1985) analyzes small state behavior based on the political dynamics among social groups. His case studies of European small states concludes that the size of the business sector relative to that of the labor sector is a determinant of adjustment policy in domestic as well as international economic politics. Liberal internationalization policy in Switzerland is the result of a strong business sector and a weak labor sector. Finland, with the opposite demographic distribution, has adopted a protectionist policy. This hints at the possibility that business sectors are more likely to prefer international engagement than their labor counterparts.

Two-level game theory is consistent with social coalition theory and autonomy theory. Putnam (1988) points out two sets of factors that affect the

size of the win-set in the domestic ratification process. The first one is socio-economic dynamics, exemplified by the distribution and preference of political groups, coalitions among constituents groups, and issue salience. The second one is institutional arrangements as a rule of the game. This includes state strength and autonomy and ratification procedures of majority rule (Putnam 1988, 442-449). The first set of domestic factors refers to social coalition theory, and the second set is related to the autonomy theory. This research will pay attention to the former rather than the latter.

Two-level game theory argues that the size of a win-set depends on the relative size of the isolationists and the internationalists. While isolationists oppose international cooperation in general, internationalists offer all-purpose support, which is probably greater in smaller and dependent countries with open economies as compared to more self-sufficient countries (Putnam 1988, 443). It is hard to determine the exact proportion of isolationists and internationalists in a given country without continuing series of surveys across time. As a result, I assume that there is a consistent trend of policy preferences between a socio-economic group and accumulated individuals in a given group (Holsti 1996).

Wittkopf (1994) shows that foreign policy attitudes are correlated with political ideology and partisanship among the American public and political elite. Holsti (1996) also finds strong congruence between foreign policy attitudes and political-ideological placement or partisanship. The majority of domestic liberals are foreign policy accommodationists, while most domestic conservatives are either hard liner or internationalist. In addition, demographic

variables such as education, region, gender, and race also impact foreign policy attitudes in some ways.<sup>11</sup> The importance of these findings is that the foreign policy attitudes of a nation state are related to personal ideological, political, and partisan factors, which are also related to demographic characteristics at the public level.

*H3-1: the larger the size of the manufacturing industry sector in a given country, the greater the interstate cooperation will be.*

*H3-2: the larger the size of the farming industry sector in a given country, the lesser the interstate cooperation will be.*

These hypotheses signify the importance of the composition of industrial sectors. They are derived from Gourevitch's (1986) argument that the preferences of sectors are shaped by their situation in the international and domestic politics; and therefore, they reshape national preference and thus alter domestic politics as reification process of domestic politics of two-level game theory (Putnam 1988) illustrates. Although the state's autonomy relative to other social groups also is a major factor in the formation of policy decisions, it is hard to measure state strength or autonomy<sup>12</sup>. For this reason, I analyze the strength of each industrial sector as an accumulated sum of

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<sup>11</sup> Despite the similarity in terminology, the internationalist in Putnam (1988) does not exactly match with the same term in Wittkopf (1994) and Holsti (1996). The term of internationalist in Putnam (1988) is more likely to be cooperative internationalist rather than militant internationalists in terms of Wittkops's typology.

<sup>12</sup> Steve Chan (1999) measures state strength with government expenditure with respect to total GNP.

individual policy preferences, which can affect the outcome of foreign policy behavior in a given country.

Each domestic sector has its own preference and priority on policy decision making. Thus, those groups with different preferences are competing with one another to maximize their own interest through the domestic political decision-making process. While the agricultural sector tends to support protectionist economic policy, the manufacturing sector is more likely to prefer liberal economic policy such as free trade and internationalization policies. Generally speaking, industrialized countries lean to export-leading policy for manufacturing goods and tertiary services at the cost of the agricultural sector because manufacturing sectors have a comparative advantage relative to agricultural sectors. A case example can provide a clear picture of how the industrial sector can work for a particular outcome of foreign policy. The Korean farmer response to the Uruguay Round is a typical example of the dynamic interaction among different socio-economic groups within the two-level game theory of the domestic ratification process and government stances in international negotiation process. The Uruguay Round lasted seven-and-a-half years, from September 1986 to December 1993, and it dealt with agriculture products, and tertiary services, and even copyright issues on top of traditional items such as industrial goods. Despite the comprehensiveness of this international trade agreement, the general public in Korea did not even recognize its presence during the entire negotiation

period. Only the last year of negotiation witnessed intense domestic confrontation between various socio-economic groups.<sup>13</sup>

One of the most remarkable issues was the opening of the Korean agricultural product market in general, and the rice market in particular, which were combined with nationalistic sentiment about food security or self-sufficiency in food.<sup>14</sup> In expectation of the possible loss of an open market economy, farmer groups were politicized in order to preserve their interest, with the establishment in 1992 of the National Association of Farmers' Union, which includes local farmers' unions.

There was invisible and undeclared friction between urban and rural areas as well as between the manufacturing industry and the agricultural industry. A government official warned farmers of the possibly distorted distribution effects that could result from open market policy. While urban consumer groups will take advantage of an inflow of imported cheap agriculture products, farmers will lose the competitiveness of domestic agriculture goods on the domestic market. This is a result of the Uruguay Round agreement, which prohibits any governmental subsidy, grant, or aid to protect domestic industry in the long run.

Socio-economic conflicts were indirectly reflected in the outcome of the 1992 National Assembly election. Although there was no realignment of party support among the rural constituency until 1994, there was dramatic change

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<sup>13</sup> *Chosun Ilbo*. December 16, 1993.

<sup>14</sup> Self sufficient ratio of food supply in Korea had been continuously decreasing. It was over 80% during 1970s, 56% in 1980, 48.4% in 1985, 43.1% in 1990, 37.5% in 1991, and 34.3% in 1992, when Korean government agreed on Uruguay Round. Source: Korean Department of Agriculture and Forestry 1993.

in the demographic composition of the rural population and the industrial composition of agricultural product.<sup>15</sup>

This type of demographic change reflects how the distribution of societal power can affect outcomes of national foreign policies. In this particular case, urban industrial area won more electoral districts at the cost of rural districts. Therefore, major emphasis of national politics has been moving to the non-agricultural and industrial sections, which has led to a dramatic change of incumbent party policies toward rural farmers. This change means that relatively weak rural farmers, in terms of numbers and influence, have given up their policy competition against urban industrial labor groups, and a majority of young farmers have been voluntarily absorbed into industrial labor groups. This is an ongoing process in terms of Korean international economic policy decisions even if the farmers groups are gradually losing their ground<sup>16</sup>. As the Korean case shows, the industrial sectors are more likely to support internationalization as a cooperation policy while the agricultural sectors are more likely to oppose these same policies. Although it is hard to generalize across the world, Keohane and Milner (1996) present the same argument about the responses of American agricultural sectors toward the globalization process.

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<sup>15</sup> A group of experts expected that due to the Uruguay Round, the proportion of rural population decreased from 13.1% in 1995 to 4.8% in 2001 and the ratio of agricultural, forestry, and aquatic product decreased from 7.6% to 2.6% during the same period. *Chosun Ilbo*. December 16, 1993.

<sup>16</sup> The Korean Government signed the Korea-Chile Agricultural Free Trade Agreement in 2003 and the Congress is deliberating on it, despite massive demonstrations by Korean farmers. It is a part of long-term Korean economic trend of export driven economy, in which the Korean government tries to find a foreign market for Korean industrial goods at the cost of domestic agricultural industry. The Korean government is going to adopt the same strategy and the Korean farmers will resist against the ongoing multilateral free trade agreements such as WTO negotiations in Doha, Qatar and Cancun, Mexico.

## Domestic Economic Factors as Sources of Foreign Policy Behavior

In the previous section, I showed how domestic factors influence foreign policy at different levels of analysis. While the distribution of capability among social groups is at the nation-state level, domestic political and economic factors are at the sub-national level analyses. One of the main themes of this study is that interstate cooperation is a function of domestic factors and international conditions, which is supported by two-level game theory, diversionary theory, and internationalization.

The main idea of interaction between domestic factors and interstate behavior is supported mostly by two-level game theory. According to two-level game theory, a decision maker should consider domestic and international pressures simultaneously when deciding foreign policies. The distribution of power, preferences, and possible coalitions among domestic constituents are responsible for the outcome of foreign policies (Putnam 1988).

Internationalization theory also supports the dynamic linkage between domestic and interstate politics. Within the internationalization process, relative political agents become more sensitive to world market trends and shocks, where interstate economic policies are the outcome of domestic political dynamics and the effect of the international environment on the adjustment process among various actors.

On the other hand, diversionary theory explains various factors such as socio-economic and political conditions that might impact the militarized intervention into foreign conflict. Initially, diversionary use of force theory focuses on conflictual behavior. I think diversionary theory is also applicable

to the interstate cooperation arena. Despite inconsistent findings from the empirical analyses of diversionary theory, economic and political factors are still responsible for the outcome of foreign policies.

These hypotheses of linkage between domestic factors and foreign policy outcomes are theoretically based on two-level game theory and internationalization theory, which delineate the dynamic interaction between domestic and interstate behavior. The major variables for testing hypotheses were derived from diversionary theory, which considers strategic behavior of decision makers who face domestic policy failure and interstate conflicts at the same time. However, this paper is concentrated on the Level II game, domestic political conditions and institutional arrangements, instead of the Level I game related to the international bargaining process.

Keohane and Milner (1996) demonstrate that the linkage between the domestic and the international economy, with the globalization process as an independent variable, affects domestic politico-economic dynamics. Garrett and Lange (1996) trace the process of influence international conditions exert on policy change. First, a change in international economic conditions affects the preference and power distribution of domestic groups, which then changes the informal and formal institutions, which ultimately influence the policy outcome. The policy outcomes have feedback effects on the domestic institutions at both the informal and formal levels. In the process of influence, critical factors are domestic institutional arrangements such as regime type, state autonomy related to other social groups, and the size of major social groups like business and labor. Although Garrett and Lange (1996) focus on

political economic policy with respect to the globalization process, it is true that domestic factors can also affect the policy outcome. For instance, trade policy might be sensitive to domestic political dynamics. There is no reason to deny that the foreign policy decisions regarding interstate cooperation are the outcome of domestic political dynamics.

The political economy literature expands the scope of theoretical applicability, which is explained by Katzenstein (1978). While the Katzenstein's (1985) early theories were limited to small state behavior, Keohane and Milner (1996) enlarged their scope to include superpower behavior. The key idea of their monograph was that a superpower tries to adjust its domestic economic policy according to class coalitions, cooperation, harmony, stability among the social classes, and the political effectiveness of domestic political groups. In other words, various domestic groups affect the outcomes of even a hegemon's foreign policy to maximize their own interest. In the internationalized world, a decision maker can consider foreign policy a domestic policy tool and domestic policy a foreign policy tool. This is supported by two-level game theory.

Diversionary theory also buttresses the claim that domestic economic conditions feed into conflict intervention despite controversial empirical findings. The basic assumption of diversionary theory is that external conflict will increase the internal cohesion of an in-group only if the group already exists and considers the preservation of itself and other groups worthwhile.

In terms of links between domestic conditions and interstate behavior, diversionary theory has produced a wealth of empirical analyses, although its

findings with regard to the relationship between domestic conditions and conflict intervention are still debated. Diversionary theory suggests a possible correlation between domestic conditions and conflict involvement, and it presupposes that external conflict involvement tends to divert public attention away from domestic problems such as economic failure, to external enemies. This is an answer advanced by in-group and out-group hypotheses. Most of the early works of diversionary theory support the correlation between domestic policy failure and foreign conflict intervention (Coser 1956; Stein 1976; Wilkenfeld 1968; Hazelwood 1973; Ostrom and Job 1986; James and Oneal 1991; Leeds and Davis 1997). There are various factors that inspire the diversionary use of force, such as revolution and domestic turmoil (Wilkenfeld 1968); population fractionalization; ethnic fractionalization and domestic turmoil (Hazelwood 1973); electoral cycle (Stohl 1975; Ninic 1990); and Presidential approval rates (Ostrom and Job 1986; James and Oneal 1991; Morgan and Bicker 1992; DeRouen 1995).

On the other hand, later empirical studies found that there is no significant correlation between domestic policy failure and conflict involvement (Rummel 1963; Tanter 1966; Miller 1995; Meernik 1994; Leeds and Davis 1997). Meernik (1994) finds that international factors work better than domestic factors in explaining conflict involvement. The popular interpretation of strategic interaction is that the degree of the challenger's resolve is an important factor for military intervention (Fearon 1994; Bueno de Mesquita, Morrow, and Zornik 1997). When a target country considers the resolve of a challenging country, it will attempt to avoid a militarized dispute by acceding to

the demands of those more resolute. Leeds and Davis (1997) suggest that a target considers the domestic conditions of a challenger and responds strategically. In his formal modeling, Smith (1996) suggests that strategic interaction can cause a lack of consistent empirical evidence of the diversionary use of force. This strategic behavior interpretation means that a target country considers the challenger's domestic conditions and concedes to or compromises with the challenger's request, which is also a cooperative behavior. Once a target country concedes, it must take a cooperative action instead of conflictual one to allow the challenger to adjust and maximize national interest. So we can observe that domestic conditions can have something to do with cooperative behavior.

Due to the uncertainty of the consequences of military intervention, it is also possible that the decision maker engages in a cost-benefit calculation to weigh the domestic policy failure and diversionary use of force. Hazelwood (1973) makes this argument, positing that foreign conflict involvement is a function of domestic conflict. The decision maker considers the possible costs and benefits of diversionary use of force both in domestic and international contexts. In terms of domestic costs, impeachment would be the most devastating consequence from diversionary use of force. Second would likely be the political clout that could result from decreasing partisan support. On the other hand, the outcome of military intervention is more risky. Success could bring unexpected benefits from a high approval rate, and defeat could lead to the political disaster that is low approval (Fearon 1994).

This discussion about the economic conditions and their effect on support rate, which then influence foreign policy behavior, allows for my next two hypotheses:

*H4-1: an economic downturn in a given country will more likely lead to cooperative events toward any possible target countries.*

*H4-2: an economic downturn in a given country will more likely lead to conflictual events toward any possible target countries.*

Since these hypotheses regarding the effects of domestic factors are derived from the diversionary use of force theory and assume that cooperative and conflictual policies are separate policy domains, I must test the likelihood a state will engage in conflictual events when it faces economic hardship. This approach will have some merit. First, I will use sub-annually aggregated event data, which is not tried in the diversionary theory. Second, this approach, with the diversionary theory, will allow me to analyze the joint impact of cooperative events and conflict events on domestic policy failure. Since a decision maker can freely switch between two different policy tools in order to attain his own political goals, conflict intervention can be a part of the story.

#### Domestic Political Factors as Sources of Cooperative Behavior

Diversionary theory also shows that political factors might lead to cooperative events: domestic political stability could inspire a country's involvement in international conflict. A cost-benefit calculation proves

diversionary use of force riskier because there is the possibility of devastating results from a conflictual involvement. Cooperation action, without reliance on burdensome military intervention to gather public attention, costs close to nothing. Although defection by a cooperation partner might be politically problematic, the costs of this worst case scenario never outweigh the costs of military force, regardless of the outcome of conflictual behavior. Cooperative action is an inherently less expensive policy tool for diversion compared to conflict involvement. Rational actor theory assumes that a decision maker searches for maximization of benefits and minimization of costs in any given goal. As long as a foreign policy event might divert public attention from a policy failure, a decision maker almost always prefers cooperation over conflict. I will experiment with this theoretical concept by testing the following hypotheses:

*H5-1: An upcoming national election in a given country leads to more cooperative behavior.*

*H5-2: An upcoming national election in a given country leads to more conflictual behavior.*

Before discussing the diversionary use of cooperation policy, it is necessary to review the characteristics of conflict and cooperation events. First, cooperation events in general are more likely to occur under normal daily conditions rather than under ad hoc situations because cooperation

policy does not involve enormous political and economic costs relative to intervention in militarized conflict, which are the major dependent variables in diversionary theory. On the other hand, conflict behavior in this study, less serious and costly than militarized interstate disputes, are also normal daily behavior. With the exception of extreme cases, such as militarized interstate disputes or integration, conflict and cooperation are both normal daily state activities even if there is variance in terms of degree. A nation-state can take cooperative and conflictual action on a daily basis in order to maximize national interests as well as decision makers' personal interests.

Second, both conflictual and cooperative behaviors are policy tools that can be used to attain of national policy goals. This in mind, these two policy domains are not necessarily mutually exclusive. Instead, they are mutually reinforcing. In other words, a nation-state can employ conflictual as well as cooperative policies at the same time to deal with the same issue with different actors (Clausewitz 1942; Feron 1994).

In terms of frequency, cooperative events could occur on a daily basis, depending on the countries being examined. The diversionary use of armed force is not as prevalent as cooperation and conflict. In theory, military action refers to;

Physical action...taken by one or more components of the uniformed armed military services as part of a deliberate attempt by the national authorities to influence or be prepared to influence, specific behavior of

individuals in another nation without engaging in a continuing contest of violence (Blechman and Kaplan 1978 12).

Empirically, military action includes different levels of military engagement -- threatening of force, display of force, and use of force. Based on the Militarized Interstate Dispute (MID) data, the occurrence of any event mentioned above was counted as a military intervention (James 1988; Leeds and Davis 1996). Blechman and Kaplan (1978) include "major use of force," for any event involving a strategic nuclear unit, two or more aircraft carrier task groups, more than a battalion of ground forces, or one or more combat wings. The MID measurement of conflictual events concentrates so hard on extreme cases that it misses important policy decision-making, which actually intends to pursue personal interests and/or national interests with the use of conflictual policies.

Lian and Oneal (1993) suggest a supplementary method for measuring military activity as a dependent variable: the use of force with media coverage. They argue that media emphasis can better reflect the effect of diversionary use of force, as long as the use of force event purports to attract and divert public attention. Because a decision maker expects a maximum rally effect with minimum political cost, media coverage is a direct indicator of how the use of force can widely influence the general public. The same logic is applicable to the cooperative events since the method of cooperative event measurement relies mainly on major media coverage. Therefore, cooperative events employed by a decision maker for diversionary purpose can be

examined in the same way. Regardless of the nature of foreign affairs, both cooperation and conflict events with major media coverage is noteworthy enough to divert public attention from the current policy failures of the incumbent regime.

Many empirical analyses in diversionary theory include cooperative events such as summit meetings, treaty signings, presidential trips, and accomplishments in the space program as possible factors affecting presidential approval rates (Muller 1970; Kernell 1978; MacKuen 1983; Ostrom and Simon 1985; Brody and Shapiro 1989). The aforementioned cooperative events are obviously given the utmost priority by the mass media. A meeting at the summit level presupposes negotiated agreements on major issues at the working level between two states. The summit itself signifies an advance in the adjustment of mutual benefit for both concerned parties. Even if there is no substantial agreement on mutual benefit, which is normally missing in events such as an unofficial visit, the contact itself accompanies major media coverage. So, the data can reflect these events as major cooperative events.

Previous research needs to control for the effects from the cooperative events on approval rates. In terms of cost-benefit calculations, cooperative action is a more efficient policy tool for boosting approval rates than conflict involvement. Thus, it would seem to be a preferable means for a decision maker to divert public attention from domestic problems.

Empirical studies in diversionary theory have been limited in terms of generalization of the theory because it has specifically employed the

American case. Only a few of them enlarge their scope into several post-industrial sample countries (Dassel and Reinhardt 1999). Another weakness of diversionary work is that empirical studies produce inconsistent results. The major independent variables involved in the diversionary theory are also important factors for the explanation of diversionary use of cooperative events. These factors are electoral cycles, domestic economic downturn, and the approval rate of the top decision maker.

According to decision-making theory, especially the bureaucratic politics model (Allison and Zalikow, 1999) can provide important insight into cooperation policy decision. Bendor and Hamond (1998) argue that the bureaucratic politics model is too complex to consider all factors in a single model. It includes the bargaining process of multiple actors, such as related executive branches, congress, and domestic political conditions, which include upcoming elections and support rates. This is an appropriate critique. There is no analysis concerning the possible impact of electoral cycles and foreign policy outcomes for conflict within the previously cited literature. However, it offers the premise that domestic political evolution is a possible factor in the process of foreign policy decision-making.

Although decision-making theory initially targeted the explanation of the use of force instead of cooperative initiatives, it could also be used to explain cooperative behavior. There is no difference between cooperation and conflict in that both events are occurring on a daily basis and that both options aim to maximize the interests or benefits from the policy application with the assumption of a minimum degree of rationality.

*H6-1: Decreasing presidential approval rates will result in more cooperative events.*

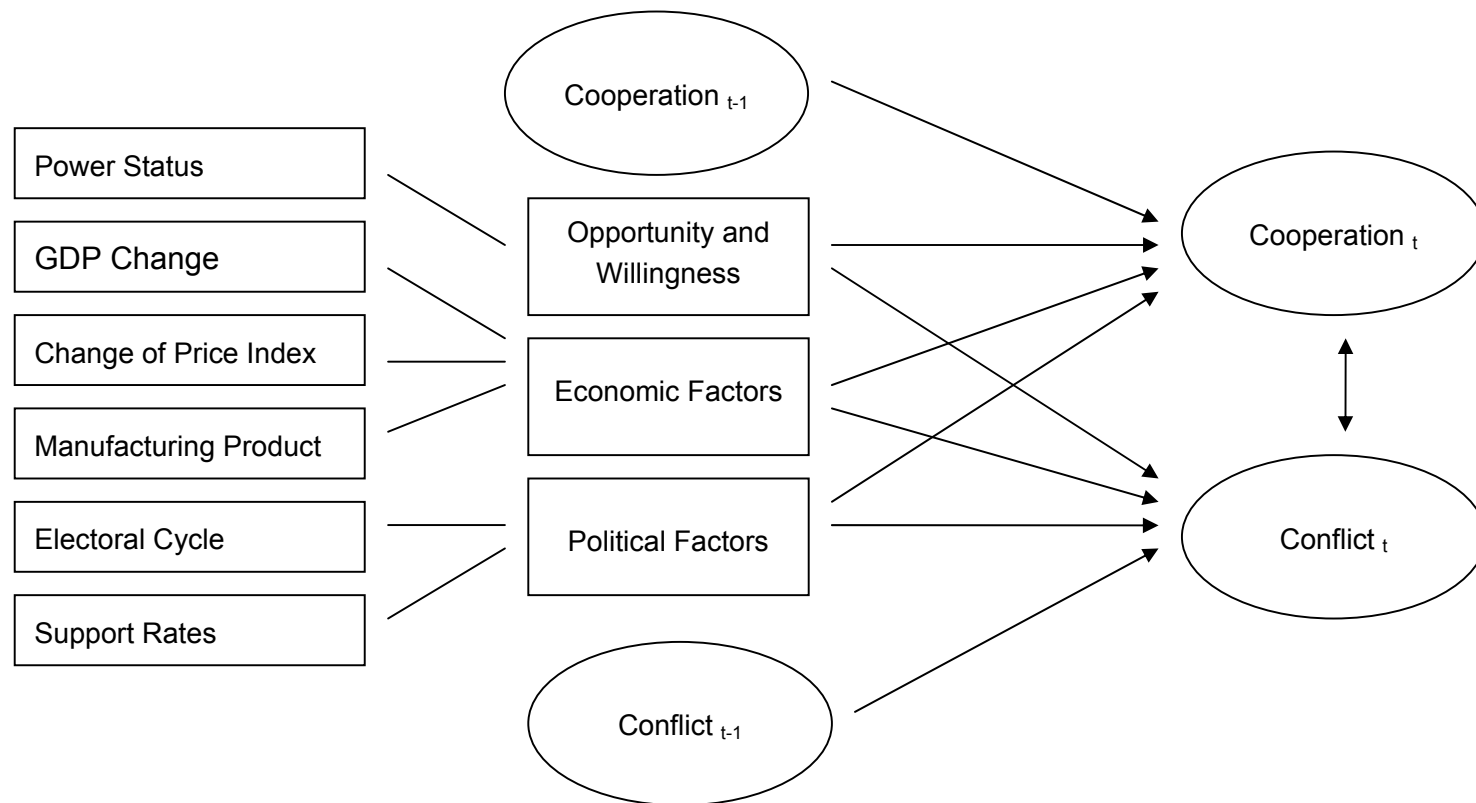
*H6-2: Decreasing presidential approval rates will result in more conflictual events.*

I mentioned three major factors that might affect interstate cooperative behavior: national capability status; domestic distribution of power; and domestic politico-economic conditions. The major theoretical argument is that interstate cooperation as a type of foreign policy is an outcome of domestic dynamics. National capability is the systemic determinant for the frequency of interstate cooperation. Under given structural limitations, decision makers in each country consider domestic conditions to decide foreign policies.

Diversionsary use of interstate cooperation is also a part of the theoretical explanation of cooperation. When a country experiences economic hardship, a decision maker might seriously consider cooperation with other nation-states in order to improve its own economy. However, the diversionsary action on the part of the decision maker is more likely to triumph when a country faces political and economic difficulties.

I described my theory and hypotheses based on diversionsary theory, two-level game theory, and state-in-society theory. As a summary, my theory could be illustrated with a figure.

Figure 3-1. Theoretical Framework of Cooperation and Conflict Events



The arrows refer to theoretical correlation and the solid lines means indicators laden on each factor.

The cooperation and conflict occurrence is a function of the other type of foreign policy, its own past value, opportunity and willingness in terms of capability status, and domestic political and economic factors. In detail, my theory expects that current cooperation is positively correlated with lagged cooperation and conflict levels. Major power status is also positively correlated with cooperation and conflict because major powers with willingness and opportunity can afford to utilize foreign policies for their own national interest. Economic conditions have negative impacts on cooperation level: as economy goes bad, decision makers are more likely to rely on cooperation events. Concerning political conditions, electoral cycles are expected to have a positive impact on the cooperation level since decision makers need to divert public attention and take advantage of international relations. Finally, support rates for decision makers have negative influence on cooperation because decision makers rely on cooperative policy when their support rates decrease.

## CHAPTER IV

### METHODOLOGY: VARIABLES, DATA AND CASE SELECTION

#### Introduction

This chapter will clarify methodological issues related to the empirical test of my hypotheses and provide a discussion of a new treatment of cooperation and conflict data: aggregated cooperation and conflict level. With an aggregated dependent variable, I analyze the relationship between conflict and cooperation events, and the impact of domestic factors. The relationship of conflict and cooperation will be tested with the Granger causality method, and the domestic factors affecting cooperation and conflict will be tested with time series analysis. These two analyses could be a major contribution of my research. First, concerning the relationship issue of mutual exclusiveness, reinforcing, or irrelevance between conflict and cooperation, this is the first trial to employ the logic and methodology of the Granger causality test although there are a few other types of empirical analyses. Second, examining the domestic factor with sub-annual time series analysis will also be a challenging examination.

The three dependent variables I will be using are aggregated quarterly measurements of cooperation, conflict, and “net-cooperation” levels (both cooperation and conflict tapped by a single measure). However, this research design sheds more lights on cooperative events than on conflictual ones. First, I will discuss the coding rules and level of analysis of the dependent variable. The independent variables I will include in my models consist of two sets of domestic factors: economic and political conditions. In addition, I will control

for the lagged endogenous variable, the other type of foreign policy events, and power status. I will then discuss the indicators for independent variables. Then, I will specifically address sample selection, the Most Similar System (MSS) design. The next issue I will discuss is the model, its specifications, different samples I will use, and the different dependent variables I will employ. Finally, I will identify and justify the statistical methods: Granger causality, Feasible Generalized Least Square (FGS), and Linear Time Series analysis.

### Dependent Variables

There are two major data sets for cooperation and conflict events: WEIS and COPDAB. Since I introduce those two data sets in my theory chapter, I will only briefly remind the reader of these two major event count data sets here. McClelland (1978) initially created a 22 category coding scheme for the WEIS event count. Later, Goldstein and Pevehouse (G&P 1997) developed 33 categories of conflict events and 28 categories of cooperative events from the WEIS measurement scheme. Although WEIS is designed as a categorical measurement, it is transformed into an ordinal measurement after weighting score of Goldstein (1992) is applied to each event, identifying the degree of cooperation and conflict evident in a particular act. Conflict events range from “requesting action,” as the least conflictual degree, to “military attack,” as the highest degree. Cooperative events range from “explaining” as the lowest level of cooperation and “extending military assistance” as the highest.<sup>1</sup> G&P (1997) includes seven different daily event

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<sup>1</sup> Details of WEIS and COPDAB scales are available in Appendix A and B.

count data sets regarding major conflict areas around the world: Bosnia and Kosovo, China, Cuba, Haiti, India, the Middle East, and Somalia.

In contrast, the COPDAB conflict/cooperation scale is an ordinal measurement of 5 different types of conflict and cooperation events from voluntary integration at one extreme and extensive war at the other. The COPDAB data set covers 135 nations, international organizations, and nongovernmental agencies from 1948 to 1978. It includes general foreign policy behavior of most of the countries around the world instead of selected conflict areas.

As I discussed before, the major problem of the existing data sets used in empirical analysis is that the majority of them merge cooperation and conflict under the concept of “net-cooperation,” weighed cooperation score minus weighed conflict score, which is not theoretically justified. It is out of methodological convenience because the concept of “net-cooperation” is not based on the tested mutual exclusiveness of cooperation and conflict.

Unlike Azar (1982), who uses COPDAB, and Goldstein who exclusively uses WEIS, I will generate different methods of treating data to provide a better frame of reference. I will test the nature of cooperation and conflict event by separating these two foreign policy events and running analyses with three variables: 1) cooperation, 2) conflict, and 3) “net-cooperation.”

The “net-cooperation” variable in my analysis is similar to previous measures and useful as a baseline to which other statistical outcomes can be compared. While the previous measurement of “net-cooperation” was at the dyadic level, my data are aggregated, considering states’ actions toward all

foreign policy partners. However, the logic of variable generation is the same as in Goldstein (1992): the sum of a weighed cooperation score minus the sum of the weighed conflict score in a given period of time for a country.

The unit of analysis and the dependent variable in this analysis are at the aggregated level whereas most previous empirical analyses relied on dyadic level. They employed a Richardsonian arms race model, testing it at the dyadic level of analysis. In contrast, this research design will employ as a dependent variable the aggregated cooperation level for each country that is analyzed.

A decision maker in a given country can employ cooperative and conflictual policies toward a whole variety of possible foreign policy partners. Although a country is more likely to take foreign policy actions toward partners that have diplomatic importance, the possibility of foreign policies addressing less important countries is still present when decision makers face domestic political and economic crises.

In other words, the foreign policies of relevant states do not have to occur in a reciprocal mode. The Richardson arms race model includes a defense term and a fatigue term at the dyadic level. The defense term refers to the opponents stock of weapon and the fatigue term refers to one's own stock of weapon together. These represent the economic and administrative burden of conducting as arms race.<sup>2</sup> These two factors are a different way of

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<sup>2</sup> Richardson includes a "grievance term" as a factor impacting the arms race. However, the "grievance term" is static and perennial rather than dynamic because it takes into account all other factors that might influence the arms race such as historical, institutional, cultural, and other sources (Intriligator and Brito, 1984).

expressing TFT, which considers one's own past level of cooperation and conflict and the opponent's current level of cooperation and conflict.

When a source country adopts a cooperative or conflictual policy toward a target country, the target country does not necessarily respond directly to the source country. In the case of foreign policy initiation driven by domestic conditions, the dyadic combination of source and target may not hold. A political leader facing domestic problems might select a politically relevant major partner for cooperation or a political rivalry for conflict. The possible cooperation and conflict candidates are not limited to traditional cooperation partners and rivalry countries, nor to any particular dyad.

To illustrate, let me offer an example that shows the non-reciprocal nature of foreign policy events. France tried to force the U.S. to change its domestic-cum-policy in 1971 with economic threat. President Nixon's announcement in August of 1971 changed U.S. economic policy, including the suspension of the dollar's convertibility to gold and the imposition of a 10 percent surcharge on imports; prompted international markets to abandon fixed exchange rates for Japanese currency (by which the value of one U.S. dollar was set at 360 yen); and shifted toward a system of floating exchange rates. De Gaulle, French President, succeeded in pushing the U. S. away from its Gold Exchange Standard and forcing the world onto a true dollar standard in the summer of 1971.

This example presents the multiple nature of the international action-reaction mechanism, although the actors were exclusively major economic powers. The United States corroborated the French request to change the

international political economic system. It seemed to be a dyadic relationship between the U. S. and France; however, the influence of the American economic policy change extended to the entire world; more so to the countries which export the most to the U. S.: Japan, France, and Germany.

Thus, in order to detect any possible correlation between domestic conditions and cooperative foreign policy, cooperation levels of a given country need to be aggregated with all possible dyads instead of with dyadic cooperation level. Through my focus on aggregated cooperation, and aggregated conflict separately, this analysis should expand our understanding of foreign policy more generally. I think it will be useful to look at aggregate conflict and cooperation toward all countries, as opposed to particular countries, when one is investigating the existence of domestic effects on foreign policy.

#### Cooperation and Conflict from WEIS and COPDAB

This study employs both WEIS and COPDAB as major data sources. However, COPDAB is used as a supplementary data set for construct validity and comparison with the WEIS outcome. There are several reasons to use WEIS as a main source of data; while WEIS is an ongoing project, COPDAB ended in 1978, and machine coding of WEIS is more reliable than human coding of COPDAB. Since I rely on WEIS as the major source of data, I develop coding rules for WEIS and then apply similar coding rules to COPDAB. In order to measure the aggregated cooperation levels in a given country as a dependent variable, this research utilizes data from Goldstein

and Pevehouse's (1997) WEIS and Azar's (1982) COPDAB data sets and weighting scales.

Two qualities that one should look for when finding a measure of foreign policy events are comprehensiveness and consistency.

Comprehensiveness is an important consideration when analyzing domestic effects on cooperation policy of a country toward the rest of the world:

Consistency of the data measurement is also an important criterion because the measurement has to exclude any possible overlapped counts of the same event, which might result from the use of multiple data sources. But, comprehensiveness and consistency of measurement can also be competitive and contradictory criteria because multiple data sources inevitably lead to overlapped counts of the same event. Therefore, I will use COPDAB and WEIS data in different, roughly parallel models, even though I am aware that some scholars argue that those two data sets are compatible and could be merged into one (Vincent 1983; Reuveny and Kang, 1996).

Goldstein and Pevehouse's (1997) event count data, as a single source, partly satisfy both the comprehensiveness and consistency concerns because it can cover various countries' foreign policy behaviors without overlapping. Therefore, this research design refrains from using other sources of the WEIS event count data, although they use the same coding rules and dictionary for events reported in major journals.

The event count data from Goldstein and Pevehouse (1997) covers the period from the first quarter of 1987 to the second quarter of 1997. Quarterly measurement of the cooperation level produces 44 observation points, which

is a time span long enough for a meaningful time series analysis. I constructed a STATA 6.0® “do-file” to code the data. The statistical package selects daily basis cooperation and conflict events for a given country, multiplies each event with Goldstein’s weighting scheme (1992), and finally, adds the weighting scores for each quarter. In the data generating process, I counted event occurrence along the source country and disregarded the target country.

The COPDAB data set includes domestic as well as international cooperation and conflict measurements. Domestic conflict and cooperation are excluded from analysis. The COPDAB data compilation produces 124 quarterly observations for each sample country; I employ it for the Granger causality test. However, my time series analyses employ 78 observations, from the third quarter of 1959 to the fourth quarter of 1978, for each sample country because of unavailability of economic data for earlier periods. After separating cooperation and conflict events, a daily degree of COPDAB cooperation and conflict is also aggregated into quarterly measurements. I count total numbers of event occurrence in COPDAB in order to control extreme cases of event occurrence because some major countries such as the United States and the United Kingdom have much more foreign policy engagement than other sample countries. When I checked the AC and PAC, there are no serious non-stationary problems in these major power cases.

Concerning the comparison between WEIS and COPDAB, there is little difference as far as the data treatment goes. Despite disparities in the temporal domain and coding scheme detail, COPDAB and WEIS have been

treated with similar coding rules in previous empirical analyses. Azar (1982) treats that the highest degree of cooperation event (category 1) is 92 times more cooperative than the lowest degree of cooperation event (category 8) on the cooperative end of the scale in COPDAB. On the other hand, Goldstein's (1992) weighting scale in WEIS is similar to Azar (1982): The highest degree of cooperation (code number 084) is 100 times more cooperative than the lowest degree of cooperation event (code number 020). The only difference between the COPDAB and WEIS weighting value is the size of numeric scale. The ratio between the equivalent cooperative events in COPDAB and WEIS is about the same. This weighting value is consistent on the conflict end of the scale, as well.

The weights assigned to scale points in COPDAB (Azar 1982) are about ten times bigger than those in WEIS (Goldstein and Pevehouse 1992).<sup>3</sup> So I divided the COPDAB weighting value by ten to make the two data sets

<sup>3</sup> Azar (1982) separates three different categories of foreign policy behaviors, conflict, neutral, and cooperative events, and assigns weighting scores for each scale point. The weighting scheme is as follows;

Scale Point of COPDAB	Weighting Value of COPDAB by Azar (1982)	Adjusted Weighting Value in this research design	
15	102	10.2	Conflict End
14	65	6.5	
13	50	5.0	
12	44	4.4	
11	29	2.9	
10	16	1.6	
9	6	.6	
8	1	.1	Neutral Point
7	6	.6	Cooperative End
6	10	1.0	
5	14	1.4	
4	27	2.7	
3	31	3.1	
2	47	4.7	
1	92	9.2	

commensurate. The rest of the data-generating process was the same as the process for the WEIS data, although COPDAB is an ordered measurement of event occurrence and WEIS is a categorical measurement of event occurrence. The neutral event in COPDAB has been regarded as the lowest degree of cooperation and not included as a conflict event since it means peace rather than conflict (Keohane 1984, 51-53). Similarly, I followed the original treatment of neutral event in WEIS as cooperation by giving them a weighting score of "0".

However, the data coding and weighting scales typically used by researchers are problematic because the scale seems to assume that cooperation and conflict exist on a single continuum. In order to avoid the difficulties associated with a single continuum that were outlined earlier, cooperation and conflict need to be separated and treated as different kinds of events. While Goldstein's (1991) concept of "net-cooperation" merges the cooperation score and the conflict score after multiplying them by the weighting value, I simply treated them separately, even if events were multiplied by a similar weighting score.

Although I used the weighting scale and the weighted cooperation and conflict scores reflect the different degrees of them, this does not necessarily mean a theoretical connection between cooperation and conflict. As long as conflict and cooperation are treated separately, application of weighting scale does not mean incompatibility between theoretical justification and methodological treatment. Among different categories of conflict and cooperation behavior, each behavior brings different degrees of commitment

in terms of foreign policy. For example, a “providing assistance” refers to a higher degree of cooperation than a “sending notes.” Additionally, a “sending armed force mobilization” refers to a more serious degree of conflict behavior than a “halting negotiation.” However, I want to clarify that there is no theoretical basis on which to justify a connection between cooperation and conflict events in a single-continuum weighting scheme like the Goldstein (1991) WEIS and the Azar (1982) COBDAB weighting scales.

The separated event count data for conflict and cooperation allow a researcher to reflect on different degrees of foreign policy commitment and to refuse the single continuum assumption between cooperation and conflict. Because of this, I can claim that my data relies on fewer assumptions than Goldstein and Pevehouse’s (1992) data treatment of “net-cooperation,” which is placed on a single continuum that the authors did not try to justify “net-cooperation” with a theoretical discussion. On top of that, my data coding adopts quarterly measurements in order to avoid any criticism of over-accumulation (Goldstein 1991).

### Independent Variables

#### Variables for Granger Causality Test

The independent variables in the Granger causality test are simple because the lagged endogenous variable and the other type of foreign policy variable (conflict or cooperation) are exponential. However, the time series model includes domestic political and economic factors as independent variables.

#### General Economic Conditions

There are three economic variables that will be included in the model to test hypothesis related and justified in the previous chapter: changes Gross Domestic Product (GDP), Consumer Price Index (CPI), and Manufacturing Product Index (MPI). The sub-annual measurements of these economic variables are only available in the online IMF data bank, International Financial Statistics (IFS)<sup>4</sup>.

I measured general economic conditions in terms of quarterly changes of GDP and CPI. These two indicators are comprehensive, so they represent the general economic conditions in a given country since they are strong predictors for election outcomes in advance industrialized countries (Herron 2000).

#### Distribution of Political Power among Economic Sectors

The MPI measures sector distribution of political power. I use this because domestic policies are an outcome of dynamics among social classes and economic sectors. I assume that there are three major industries in advanced countries; primary industry, manufacturing industry, and tertiary industry. I contrast primary industry and manufacturing industry. The weakness of a single indicator, such as MPI, is that the manufacturing product could not measure the relative size of other industries. Thus, use of the single indicator of manufacturing production will only indirectly measures the distribution of political power among the economic sectors. I assume that the rapid increase of the manufacturing sector leads to relative contraction of other industrial sectors even, if this is not necessarily true.

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<sup>4</sup> IFS data service is available at "<http://ifs.apdi.net/imf/logon.aspx>"

If manufacturing product decreases relative to the product of other sectors during periods of economic recession, and it increases with other industries during periods of economic boom, it is hard to say whether the relative strength of the manufacturing industry becomes weaker or stronger in terms of sectoral distribution of political power.

### Political Variables

Political dynamics consist of national level elections and approval rates for the top decision maker, which have been mentioned in the government politics model of foreign policy decision making theory (Allison and Zelikow 1999) as well as in diversionary theory. In the process of bargaining, negotiating, and competing for policy outcomes as political resultants, all relevant political participants in domestic politics are influenced by political environment.

### Election Variables

Both presidential elections and congressional or parliamentary elections are measured with a dichotomous variable. If there is a national-level election in a given quarter, I coded the election variable “1” for the last four quarters. Otherwise, I coded them “0”. In the American presidential system, the primary election starts almost one year earlier to the final presidential election. Even if there is a slight variance to this in other presidential systems, the effects are detectable in similar ways around the world.

Unlike the parliamentary system, the presidential system has two different types of national elections: congressional and presidential, which

hold elections on a regular basis. Thus, it is easy to separate the two different election variables according to presidential systems.

On the contrary, parliamentary systems are a little more complicated because they can have irregular congressional elections even if there is only one type of national-level presidential elections. However, this research design will treat the parliamentary elections like the presidential system as national-level elections. When an election occurs in a given parliamentary system, I coded the election variable as “1” for the last four quarters before the election quarter.

This treatment of the election variable is justifiable even in relation to the parliamentary system because the ruling party and cabinet members as well as opposition parties can expect an upcoming election after the general resignation of the cabinet. Although the political process in the parliamentary system is more sensitive and responsive to the general public and more vulnerable to the criticism of opposition parties, the politically relevant participants should be able to evaluate policy success and failure and to expect an upcoming election event. Therefore, an irregular national election, even in a parliamentary system, is also predictable within at least six months before the election day, and the symptoms of policy failure could be recognized about one year before. The source I used for electoral data is *The International Almanac of Electoral History* (Macke and Rose 1991), which records all major national elections in democratic countries around the world.

Although my hypothesis did not specifically discuss the impact of domestic institutional arrangements, which is mentioned in two-level game

theory, including an election variable allows the models to control the institutional arrangement of presidential systems and parliamentary systems. In the panel data set, all sample countries with parliamentary systems were coded with “0” for the presidential election variable while all countries with a presidential system got a “1” when there were presidential elections.

### Support Rates

Unfortunately data for support rates for the top decision maker are available only for those within the United States and the United Kingdom. The presidential support rate for the U. S. is available online in the “ICPSR” file *American National Election Studies Cumulative Data File: 1948-2000*. The survey report of presidential support rates has been gathered on a monthly basis. However, the frequency of the survey depends on political circumstances and electoral cycles because different organizations and institutions surveyed presidential approval rates. As a result, the actual reports of survey data are irregular. Therefore, I accumulated the survey results into a quarterly score and calculated the mean for a given quarter, regardless of the frequency of survey.

Using this method, I obtained support rates for the American president for all quarters except those in 1989. Since the support rates for the year of 1989 were missing, I extrapolated them based on reports from major journalistic sources. Despite observing minor discrepancies among different sources, I inferred that President Bush had the approval of about two-thirds of the American public, and I put the approval rates in an increasing trend due to the success of his economic and foreign policy with the Soviet Union.

According to another source of information<sup>5</sup>, the approval rate of the Vice President, George Bush, reached 71% in December 1989. Ironically, this was higher than Reagan's highest approval rating. Based on this information, I labeled the presidential approval rates of for the quarters of 1989 as 64, 66, 68, and 71 %, respectively. Support rates of the British Prime Minister are available at Harold Clarke's website<sup>6</sup>.

### Superpower Status

In my research, I also employ a dichotomous variable measuring power status. Although the Correlates of War (COW) data provide a measurement of capability, the COW measurement is incompatible with my research design. First of all, annual observations of COW do not match with quarterly measurements of the dependent variable. Secondly, the COW measurement of capability is highly correlated with the GDP measurement (Goertz and Diehl 1986; Meritt and Zinnes 1989), which is an independent variable in my model. In order to avoid a multicollinearity problem, I measured power status with a dichotomous variable. The major powers were coded with "1," and minor powers were coded with "0." The COPDAB covering 1948 to 1978 regards only two major powers, the United Kingdom and the United States. The WEIS data adds two more major powers: Germany and Japan.

My research design also controls for the lagged cooperation and conflict events. Since previous behavior is one of the most efficient predictors of current behavior, this research design also presents the previous

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<sup>5</sup> <http://nmc.northwestern.edu/vp/old/presidents/P28.html>

<sup>6</sup> Harold Clarke's Web Site provides supporting rates of British Prime Minister.  
<http://www.utdallas.edu/dept/socsci/hclarke/essex/BR79962.DAT>

cooperation level as an independent variable. The inclusion of conflict events as an independent variable can also explain the relationship between cooperation and conflict, which is a controversial issue in previous empirical analyses.

### Sample Selection

The sample selection is also important in the statistical analysis since my samples are not randomly selected. Concerning the lack of aggregated sub-annual data sets for domestic political and economic conditions, there is a justification for intentional sample selection in analyses. Although the lack of data availability for quarterly GDP, CPI, and MPI impedes the random sampling for my analyses, I overcome these limitations by using the comparative research method, Most Similar System (MSS) design. Most of the samples are industrialized democratic countries. Therefore, the sample cases are selected from the western democratic countries, which have better economic data records in general.

The theory of comparative research argues that comparative methods are important tools to organize logically testable hypotheses rather than to simply test a methodological technique. Although, comparative method does basically concern how to select sample cases in order to test the hypotheses with theoretical consistency. Based on the logic of the MSS design, I selected of the ten most similar industrialized democratic countries from WEIS: Australia, Austria, Canada, Germany, Italy, Japan, the Netherlands, Switzerland, the United Kingdom, and the United States. The COPDAB data set only includes six sample countries for the time series analyses due to the

limited availability of economic data for the earlier period covered by the data. The sample countries for COPDAB are as follows: Australia, Canada, Germany, Italy, Japan, United Kingdom and the United States.

As Przeworski and Teune (1970) argue, the MSS design begins with the selection of cases that are as similar as possible in terms of various dimensions in units. This approach means that MSS controls for similar systemic factors and allows for covariance between dependent and independent variables.

My sample countries share many common factors in terms of various dimensions. First, with the exception of Japan, all of the aforementioned industrialized democratic countries share cultural background in terms of critical historical epochs such as the influence of the Protestant Reformation, the Industrial Revolution, and the political liberalization as a process of democratization within a century. Due to their similar historical experiences, these sample countries have developed political and economic institutions that share common value systems and cultural backgrounds. Despite minor dissimilarities among these samples, all of them have democratic institutions and market economies. Their democratic institutions are controlled by public opinion and general elections, and decision makers answer to their constituencies periodically. The very nature of democracy is a prerequisite for my theoretical test because diversionary theory and two-level game theory, from which I draw several of my hypotheses, presuppose a democratic regime, where the ruling elite need to correspond to public opinion. Autocratic leaders

are less likely to adjust their foreign and domestic policies to meet public demand.

In terms of economic conditions, the market economy with a system of private property rights serves as a basis of the given sample countries, under which decision makers might be politically sensitive to domestic and international economic changes. Since competitive market economy combined with electoral democracy makes decision maker sensitive to public requests, a decision maker always needs to pay attention to both domestic and foreign policy outcomes. As a result, there might be a higher probability for decision makers to rely on foreign policy in order to take care of their domestic constituencies.

These sample countries are politically relevant partners, in one way or another, with respect to international relations. All of the sample countries share common diplomatic interests in at least security and economic issues. In terms of historical and cultural background, only Japan has not experienced the Protestant Reformation. However, Japan shares economic, political, and diplomatic common values with the other sample countries. Given these facts, my sample selection satisfies the requirement of the MSS design, and it is logically sound and consistent.

As Przeworski and Teune (1970) point out, the MSS design maximizes and controls for the similarities among samples, and it tries to find covariance between the dependent and independent variables. The MSS approach has been criticized for having an over-determined case selection. In other words, as long as any factors differentiate the selected samples and co-vary with the

dependent variable, these factors can be considered to explain the variance in the dependent variable. This could be a weakness of the MSS approach. On the contrary, though, as far as the sample case and variable selections are based on theory instead of methodological convenience, the MSS can produce a reliable case selection and logically sound outcomes.

Various dimensions of my sample countries are similar except in relation to dependent and independent variables. The cooperation and conflict levels, dependent variables, vary along the sample countries. Domestic political and economic conditions, independent variables, vary as well. Therefore, these domestic factors could be possible candidates for variance in cooperative events. So, according to the logic of MSS is concerned, the selection of variable and sample cases in my research could be characterized as simply covariance-seeking. However, it is a viable test method for this research because each variable is theoretical justified.

### Model Specification

#### Granger Causality Model

Based on these variables and selected samples, the Granger causality model can be specified as follows:

$$CP_t = a_1 CO_{t-1} + a_2 CO_{t-2} + a_3 CO_{t-3} + a_4 CO_{t-4} + b_1 CP_{t-1} + b_2 CP_{t-2} + b_3 CP_{t-3} + b_4 CP_{t-4} + \varepsilon_t$$

$$CO_t = c_1 CP_{t-1} + c_2 CP_{t-2} + c_3 CP_{t-3} + c_4 CP_{t-4} + d_1 CO_{t-1} + d_2 CO_{t-2} + d_3 CO_{t-3} + d_4 CO_{t-4} + \varepsilon_t$$

Here, CP and CO denote cooperation and conflict, respectively. With Granger causality, variable X is said to “Granger cause” another variable Y when Y can better be predicted from the past values of X and Y together than from the past value of Y alone. The model includes the past values of two variables, cooperation and conflict. In the Granger causality test, the null hypothesis is that the coefficient of the lagged variable is zero. If the model rejects the null, there is Granger causality between conflict and cooperation. Once the model rejects the null with statistical significance, the coefficients need to be negative in order to have mutual exclusivity between cooperation and conflict.

#### Pooled Cross-Sectional Time Series

For the purpose of generalizability, I will adopt the pooled cross-sectional time series (PCT hereafter) models, which use three different dependent variables of cooperation, conflict, and “net-cooperation”. The model can be specified as the following:

$$\begin{aligned} \text{COOPERATION}_t = & a + b_1 \text{ COOPERATION}_{t-1} + b_2 \text{ CONFLICT}_t + b_3 \\ & \text{SUPERPOWER}_t + b_4 \text{ GDP}_t + b_5 \text{ PRICE INDEX}_t + b_6 \text{ MAF PROD}_t + b_7 \\ & \text{CONGRESSIONAL ELECTION}_t + b_8 \text{ PRESIDENTIAL ELECTION}_t + \varepsilon_t \end{aligned}$$

The PCT model cannot include top decision makers’ support rates due to data unavailability, as I mentioned before. The support rates are only available for the U. S. and Great Britain. Where COOPERATION and

CONFLICT refer to the level of cooperation and conflict events in a given country, respectively, GDP refers to the gross domestic product, PRICE INDEX means consumers' price index, and MAF PROD denotes the product of the manufacturing industry. CONGRESSIONAL ELECTION and PRESIDENTIAL ELECTION represent congressional and presidential elections, respectively, under the presidential system.

It is also interesting to analyze the relationship between cooperation and conflict. In order to understand the relationship between conflict events and domestic factors, this model specification will employ conflict events as dependent variable. This might be a type of empirical test for diversionary theory even if it uses the general conflict level instead of the actual use of military force as a dependent variable:

$$\begin{aligned} \text{CONFLICT}_t = & a + b_1 \text{CONFLICT}_{t-1} + b_2 \text{COOPERATION}_t + b_3 \\ & \text{SUPERPOWER}_t + b_4 \text{GDP}_t + b_5 \text{PRICE INDEX}_t + b_6 \text{CONGRESSIONAL} \\ & \text{ELECTION}_t + b_7 \text{PRESIDENTIAL ELECTION}_t + \varepsilon_t \end{aligned}$$

To compare the statistical results between cooperation and “net-cooperation” as dependent variables, I also specified the “net-cooperation” model, in which only the lagged endogenous variable is employed, excluding both conflict and cooperation from the model:

$$\begin{aligned} \text{NETCOOPERATION}_t = & a + b_1 \text{NETCOOPERATION}_{t-1} + b_2 \text{SUPERPOWER}_t \\ & + b_3 \text{GDP}_t + b_4 \text{PRICE INDEX}_t + b_5 \text{CONGRESSIONAL ELECTION}_t + b_6 \\ & \text{PRESIDENTIAL ELECTION}_t + \varepsilon_t \end{aligned}$$

### The Anglo-American Model

As discussed in the theory chapter, presidential approval rate is a good exponential variable, though it is only available for the United States and Great Britain with a frequency of monthly or quarterly observations. Therefore, the model of the American and British cases analyzes top leaders' approval rates separately.

$$\begin{aligned} \text{COOPERATION}_t = & a + b_1 \text{COOPERATION}_{t-1} + b_2 \text{CONFLICT}_t + b_3 \text{GDP}_t + \\ & b_4 \text{PRICE INDEX}_t + b_5 \text{SUPPORT RATE}_t + b_6 \text{CONGRESSIONAL} \\ & \text{ELECTION}_t + b_7 \text{PRESIDENTIAL ELECTION}_t + \varepsilon_t \end{aligned}$$

All variables are the same with the pooled cross-sectional analysis, with the following exception: the inclusion of the POPULARITY variable and the exclusion of the SUPERPOWER variable. The American and British analysis also tests the conflict model and “net-cooperation” model with the same logic that is specified in the PTS models. Therefore, I omit the other model specifications.

### Individual Case Analysis

Individual case analysis purports to catch any idiosyncratic relations between domestic factors and foreign policy behavior in each sample country.

Specific characteristics in a country might distort the statistical outcome of panel data analysis. Therefore, I need to detect any specific statistical exceptions, if any.

For individual case analysis, the dependent variables are the same as those in the panel data analysis. Concerning independent variables, analyses of parliamentary systems excluded the congressional election variable. All of my case analyses exclude superpower status. Other than that, the model for each individual country employs lagged endogenous variables, other type of foreign policy behavior, and economics and political variable that are the same as the panel data analyses.

## Methodology

### Stationarity of Series

In time series analysis, stationarity is the most important starting point since it is impossible to specify a linear model to describe the behavior of the time series with a non-stationary series. All of these economic variables seemed to be non-stationary since their scatter plots represent an upward trend. Ljung-Box Q test for white noise test tells that economic variables are non-stationary. The autocorrelation function (AC) and partial autocorrelation function (PAC) showed symptoms of non-stationarity; the high peak on first lag gradually diminished in AC, a which is typical example of the first order autoregressive process AR(1).<sup>7</sup> These series have been differenced in order to

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<sup>7</sup> Green (1993) argues that the first difference of non-stationary series such as the GNP deflator with a strong trend also exhibits non-stationarity. The second difference shows fairly substantial negative autocorrelation, but it behaves as one would expect a stationary series to behave. However, further differentiation would not reduce the autocorrelation function, contrary to intuitive expectation. Therefore, this research uses the first difference of economic

transform non-stationary series to stationary and to specify a linear model to describe the behavior of each series. After the first order differencing, these series of economic variables turned out to be stationary.

### Granger Causality Test

The first two hypotheses concern the nature of cooperation and conflict events. Unlike Goldstein's (1991) work, my research design presupposes that cooperation and conflict are totally separated policy tools. In order to test the intrinsic nature of the two different policy events, my research design employs the Granger causality test. If the presence of something automatically means the absence of another thing, there is strong negative correlation (such as the relationship between conservative preferences and liberal preferences). If they are in a single continuum, the Granger causality test will get statistically significant, negative coefficients. The presence of negative coefficients from Granger causality between conflict and cooperation events is supporting evidence for the concept of a single conflict/cooperation scale ("net-cooperation"). Otherwise, a positive coefficient, or a failure to reject the null hypothesis in the Granger causality test, leads to the conclusion that conflict and cooperation are independent policy tools.

The Granger causality test will also use the aggregated cooperation and conflict level for a country in a given period of time. I will perform Granger causality test with ten sample countries for both COPDAB and WEIS. The temporal domain of COPDAB covers 124 quarters from the first quarter of 1948 to the fourth quarter of 1978. WEIS covers 42 quarters from the first

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variables. After the first difference of economic series, most of the ACF across the cases are within margin.

quarter of 1987 to the second quarter of 1997. I use the Win-RATS 4.3® statistical package for the Granger causality test. First, the Granger causality test of the panel data analyses provides a general picture of Granger causality between cooperation and conflict events. After using Granger causality analysis with the panel data, I will also perform the individual case analysis in order to check any possible outlier cases. Since there are huge differences between major and minor powers in terms of total scores and frequencies of cooperation and conflict events, I expect systemic differences between major and minor powers as far as the Granger causality concerns.

In order to detect possible Granger causality between cooperation and conflict events, the statistical test does not have to use the dyadic level measurement of cooperation and conflict because cooperation and conflict is not limited within a given dyad as I discussed above. This research design separates cooperative events from conflict events and, in effect, builds two different sets of data instead of using “net-cooperation” as a combined indicator of relationships, which I argue is a strength of my analysis. Mine is a new approach for examination of the relationships between two major foreign policy behaviors. As I explained before, the logic is simple. If there are series of negative and statistically significant coefficients that fail to reject the null hypothesis of the Granger causality test, the rest of the statistical analysis needs to employ “net-cooperation” as a dependent variable. Otherwise, the statistical analysis treats cooperation and conflict separately.

Feasible Generalized Least Squares (FGLS)

The major part of my analyses is the domestic influences on foreign policy outcomes in terms of conflict and cooperation events. In order to test the impact of domestic conditions, this research design will employ Pooled Cross-Sectional Time Series (PTS) analysis. First of all, I will rely on a bivariate analysis for each independent variable in order to suggest possible candidates for independent variables in more sophisticated multivariate models. After that, I will observe each sample case by using the time series analysis. Since this research design intends to find the generalizable statement of domestic factors affecting cooperation events, the multivariate model with the Pooled Cross-Sectional Time Series analysis is an appropriate approach despite various statistical problems with time series analysis.

Poe and Tate (1994) summarized the strength and weakness of the PCT method. While the PCT research design enables researchers to test theories over both space and time simultaneously and to thus examine the interaction between two dimensions, it also suffers from statistical difficulties such as autocorrelation and heteroscedasticity, which appear when a researcher employs ordinary least square on the panel data<sup>8</sup>. Therefore, the panel data analysis needs to be considered.

Heteroscedasticity arises in cross-sectional data when the scale of the dependent variable and the explanatory power of the model tend to vary across observations. In addition, autocorrelation is usually found in time series data. Economic time series often display a memory where variation is not

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<sup>8</sup> As a remedy for heteroscedasticity, Poe and Tate (1994) employ White's (1980) robust-standard errors technique instead of FGLS. The robust-standard error technique provides for a consistent or robust estimate of the standard error by estimating a parameter covariance matrix that is consistent in the presence of heteroscedasticity.

independent from one period to the next (Green 1993, 358). Therefore, heteroscedasticity and autocorrelation present inevitable difficulties with PCT. Specifically, the presence of heteroscedasticity may lead to unbiased, but inefficient, estimates. The presence of autocorrelation underestimates the standard errors; thus, it exaggerates statistical significance<sup>9</sup>.

Beck and Katz (1995) point out the inherent limitations of FGLS. A major problem in FGLS is consistent underestimation of standard errors. Thus, it leads to extremely optimistic estimates of statistical significance. In other words, FGLS might not fix the heteroscedasticity, which is common when a researcher applies the OLS technique on panel data. Therefore, Beck and Katz (1995) endorse the White technique since this method provides a consistent and robust estimate of the standard error by estimating a parameter covariance matrix that is consistent in the presence of heteroscedasticity<sup>10</sup>.

However, Green (1993) argues that in most familiar settings, the Feasible Generalized Least Square (FGLS) estimator, based on a consistent estimator, has the same asymptotic properties as the GLS estimator, although conditions have to be verified on a case-by-case basis. According to Green (1994) and Beck and Katz (1995), the major hindrance of FGLS seems to be related to sample size. The asymptotic efficiency of FGLS estimators may not carry over to small samples because of the variability introduced by the

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<sup>9</sup> Homoscedasticity is when the disturbance variance is constant across observation;  $Var(\mathcal{E}_i) = \sigma^2$ . When this assumption is violated, heteroscedasticity appears.

Autoregression appears when the assumption of  $E[e_t e_{t-m}] = 0$  is violated.

<sup>10</sup> Poe and Tate (1994) employ the White method with the lagged endogenous variable to control heteroscedasticity.

estimated residual autocorrelation matrix (Green 1933). Beck and Katz (1995) also recommend that if sample sizes are large enough, a researcher needs to contemplate a complicated FGLS estimation strategy. Based on these two arguments by prominent scholars, I conclude that the applicability of FGLS is a matter of number of observations.

Since my conflict and cooperation data have enough temporal domain with 43 observations in WEIS and 77 observations in COPDAB (even after wasting the first observation), I have decided that FGLS is an appropriate statistical method for PTS analysis of cooperation and conflict. The FGLS allows estimation in the presence of AR(1) autocorrelation and within panels and cross-sectional correlation and/or heteroscedasticity across panels. FGLS is basically a method of GLS practiced in a statistical package. In STATA 6.0®, FGLS simply adds additional option statements at the end of a GLS time series (XTGLS); “*panel(heteroscedastic)*,” controlling for heteroscedasticity and “*corr(ar1)*,” controlling for the first order autocorrelation.

#### Time Series for Individual Case Analyses

In a methodological sense, the residual in time series analyses has to be non-autoregressive. In other words, the residuals are supposed to be randomly distributed. The Durbin-Watson test is a test for autoregression, but it is not an appropriate test for my models because they include the lagged dependent variable on the right hand side of the functions.

Therefore, I checked the autoregression by saving the residual after applying the OLS regression analysis. Since there are no serious symptoms of autocorrelation, I employ linear time series analyses for each sample case

by including a lagged dependent variable in the model along with the other independent variables in order to control the effects of autocorrelation.

Therefore, I will use FGLS with the PTS data to control autocorrelation and heteroscedasticity, which seems common in PTS, and I will use linear time series analysis for individual case analyses.

## CHAPTER V

### EMPIRICAL ANALYSES AND DISCUSSION

#### The Conceptual Framework of Cooperation and Conflict

##### Introduction

In this section, I intend to clarify a theoretical and empirical consideration about the relationship between conflict and cooperation. Although there is general agreement that conflict and cooperation are intermixed in foreign policy behavior (Park and Ward 1979; Mansbach and Vasquez 1981; Ward 1982; Vasquez and Mansbach 1984; Goldstein 1992), there is no scientific description of the exact relationships between them. Despite various discussions and empirical tests of the relationship between conflict and cooperation, the issue is still controversial and infrequently researched with rigorous empirical tests. There are two opposite arguments: conflict and cooperation are mutually exclusive (Boulding, 1963; Russett 1967; Kegley 1973; Robertson, 1978; Lebovic 1985; Platter and Mayer 1998) and conflict and cooperation seem to be separated, but are only indirectly related on any given issue (Rummel, 1972; Park and Ward 1979; Mansbach and Vasquez 1981; Ward 1982; Vasquez and Mansbach 1984; Regan 1997). These controversies are based on the statistically significant and positive coefficient between them (Russett 1967; Park and Ward, 1979). Despite the inconclusiveness of these conceptual issues, a majority of current empirical researchers assume, either implicitly or explicitly, that cooperation and conflict are mutually exclusive in their nature (Majeski and Jones 1981; Cusac and Ward 1981; Goldstein and Freeman 1991; Goldstein 1992; Goldstein and

Pevehouse 1997). My research design does not make this assumption and instead starts with an empirical examination of the relationship.

The phenomenon of interest in this analysis is the accumulated quarterly cooperation and conflict level. I argue that the accumulated level of cooperation and conflict evident in the foreign policy activities of a particular actor toward all other actors is the most appropriate conceptualization of these two phenomena. This conceptualization better reflects the reality of international relations, which are not necessarily dyadic in nature. Although Goldstein and Freeman (1991) argue that mixed reciprocity is present in the foreign policy actions among three superpowers, nation-states' activities are not limited to one or two other countries, (i.e. the United States, the Soviet Union, and China). Since a nation-state can often freely select the target country, in reaction to innumerable stimuli in the international environmental and domestic realms, it can respond to many countries around world either to ask cooperation behavior from possible cooperation partners or to produce conflict behavior to adversaries. Therefore, I employ the concept of multiple-reciprocity that can better reflect the reality of the international system.

As an example of multiple-reciprocity, consider how the Soviet threat to the United States might have led the U. S. either to directly respond to the Soviet Union with greater conflict to engage in *détente* behavior toward China in order to diminish the possibility of a communist alliance (cooperation), or alternatively, to request a stronger alliance support from NATO members (also cooperation). It would have certainly been reasonable for the U.S. to have utilized all of the above foreign policy initiatives at the same time. It

might have also taken actions to strengthen support in the Third World, to balance the possibility of Soviet expansion in that sphere. Analysts who study conflict and cooperation on a dyadic level would omit these various reaction possibilities from a target country toward relevant third parties. As more multiplicity is considered, the comprehensive understanding of conflict and cooperation is possible. Therefore, open-end reciprocity is better to use when explaining foreign policy behavior for a given country. With the accumulated level of cooperation and conflict, I can test the true nature of cooperation and conflict.

In order for one to treat two different events in a single continuum, one has to select mutually exclusive occurrences, which means that the presence of one thing automatically means the absence of the other thing. Below I test for this using the Granger causality test between conflict and cooperation. I test for effects at lags up to and including four quarters. As I discussed before, only if the coefficients of lagged exogenous variables are negative, test outcomes support the hypothesis that conflict and cooperation should be treated in a single conceptual continuum. Otherwise, if the coefficients of lagged exogenous variables are either consistently positive or inconsistent along the different lags, the concepts of conflict and cooperation should be treated as conceptually separate phenomena.

#### Granger Causality of Panel Data Analysis

The panel data analysis with ten sample countries presents the nature of these two seemingly opposite events<sup>1</sup>. As Table 1 shows, I tested both directions of causal arrows with two different data sets, WEIS and COPDAB. Generally speaking, all models satisfy the standard of statistical significance, which is smaller than a probability level of .05. There are certain causal relationships between conflict and cooperation, as other prominent scholars argue (Kegley 1973; Ward 1982). However, the relationship lacks consistency in terms of causal direction. The result from Ward (1982) suggests that conflict and cooperation are substantially intermixed in national foreign policy behavior, but they appear not to have a consistent relationship like the TFT theory argues.

There are similar empirical analyses that use a dyadic measurement of conflict and cooperation in Ward (1982). Despite the difference in terms of the dependent variable and the observation frequency,<sup>2</sup> the memory term of the other type of foreign policy behavior in Ward (1982) is a substitutable variable in my model specification. Ward (1982) finds that the memory term of different behaviors in the mix-begets-mix model has an insignificant effect along the rivalry and ally dyads with quarterly measurement, and he concludes that conflict and cooperation appear to have no consistent relationship, where memory and reaction terms of conflict and cooperation are regressed on one type of foreign policy behavior. Therefore, conflict and cooperation are better

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<sup>1</sup> Freeman (1983) defines Granger causality as follows; a variable X is said to “Granger cause” another variable Y, if Y can better be predicted from the past values of X and Y together than the past value of Y alone.

<sup>2</sup> Ward (1982) analyzes mixed model of conflict and cooperation with an annual observation of events at the dyadic level of analysis.

explained with the application of the “single behavior model” to their own past values than the “merged model” including past values of both behaviors.

In terms of lagged endogenous variables, quarterly measurement is more reasonable than annual measurement because human memory gradually degrades and cannot clearly remember what happened more than one year before. Ward (1982) also tests quarterly and annual measurements of cooperation and conflict. The analysis with the quarterly aggregation achieves a better statistical outcome than that with annual aggregation. Based on these findings of sub-annual aggregation analyses (Ward 1982, Goldstein 1991), I will take the position that only first and second lags have theoretically meaningful effects in terms of Granger causality. Even if I mention the third and fourth lags in the statistical outcomes, my theoretical emphasis is on the first and second lags.

In the test of COPDAB data, cooperation Granger causes conflict, yielding a statistically significant and negative coefficient on the first lag. The second lag in the same test achieves a positive coefficient with the same level of statistical significance. In the test employing the WEIS data, conflict Granger causes cooperation, yielding negative coefficients along all lags. This seems to be evidence supportive of the assumption that there is a single continuum of conflict/cooperation (“net-cooperation”). On the contrary, only the coefficient of the second lag is statistically significant. While these two statistical outcomes are somewhat supportive for the concept of “net-cooperation,” the other two outcomes seem to indicate just the opposite.

Table 4-1 Granger Causality Tests for Panel Data

Causal Directions	WEIS		COPDAB	
Conflict → Cooperation	COOP{1}	.8474 <sup>††</sup> (.0643)	COOP{1}	.2905 <sup>††</sup> (.0306)
	COOP{2}	.3440 <sup>††</sup> (.0768)	COOP{2}	.2131 <sup>††</sup> (.0315)
	COOP{3}	-.2811 <sup>††</sup> (.0842)	COOP{3}	.1421 <sup>††</sup> (.0314)
	COOP{4}	.2264 <sup>†</sup> (.0737)	COOP{4}	.1507 <sup>††</sup> (.0295)
	CONF{1}	-.0217 (.0297)	CONF{1}	.0893 <sup>†</sup> (.0346)
	CONF{2}	-.0767 <sup>†</sup> (.0260)	CONF{2}	.0131 (.0442)
	CONF{3}	-.0310 (.0264)	CONF{3}	.1802 <sup>††</sup> (.0441)
	CONF{4}	-.0324 (.0260)	CONF{4}	-.0560 (.0356)
Null Hypothesis: The followings are Zero	F(4,371) = 2.58 With Sig. Level .03666		F(4,1191) = 19.95 With Sig. Level .00000	
Cooperation → Conflict	CONF{1}	-.2367 <sup>††</sup> (.0658)	CONF{1}	.8282 <sup>††</sup> (.0303)
	CONF{2}	-.2434 <sup>††</sup> (.0575)	CONF{2}	-.2065 <sup>††</sup> (.0387)
	CONF{3}	.0341 (.0585)	CONF{3}	.1902 <sup>††</sup> (.0386)
	CONF{4}	.0174 (.0574)	CONF{4}	.0442 (.0312)
	COOP{1}	1.4213 <sup>††</sup> (.1424)	COOP{1}	-.0690 <sup>†</sup> (.0268)
	COOP{2}	1.5903 <sup>††</sup> (.1700)	COOP{2}	.0705 <sup>†</sup> (.0276)
	COOP{3}	-1.2007 <sup>††</sup> (.1863)	COOP{3}	-.0099 (.0275)
	COOP{4}	-0.1719 (.1631)	COOP{4}	.0417* (.0258)
Null Hypothesis: The followings are Zero	F(4,371) = 86.64 With Sig. Level .00000		F(4,1191) = 3.68 With Sig. Level .00543	
Note: COOP = Cooperation, CONF = Conflict / Standard Error in parentheses				
††p < 0.001      †p < 0.01				
**p < 0.05      *p < 0.1				

The test of WEIS in which cooperation Granger causes conflict achieves a positive coefficient at a statistical significance level of .001 on the first two lags. The third lag yields a negative and statistically significant coefficient. The test using COPDAB data has consistently positive coefficients along all lags except the fourth lag.

To summarize the result of these panel data analyses, the statistical outcomes are mixed at best. In the WEIS data analyses, more conflict seems to lead to less cooperation and more cooperation seems to lead more conflict. In the COPDAB data analyses, however, more conflict seems to lead to more

cooperation and more cooperation seems to result in less conflict. In other words, the inconsistent statistical outcome between conflict and cooperative could not be viewed as supportive evidence for the concept of “net-cooperation”. Although each of the four different models achieves some level of statistical significance, the directions of the coefficients are inconsistent and in some instances counter to our expectation. For instance, more conflict behavior leads to less cooperative behavior, but not vice versa: more cooperation results in more conflict. This will become clearer with an exploration of examples found in real world events.

When a country engages in conflict behavior, the same country can also rely on reciprocated conflict or cooperation as a secondary response. Although French opposition to American military action against Iraq in 2003 could be regarded as conflict behavior, France concurrently initiated cooperative gestures to the U. S. in order to prevent any retaliatory trade policies and to protect its own economic interest. As in this example, a conflict policy is not necessarily followed by a reciprocal conflict policy, nor does it exclude any possibility of cooperation, even at the dyadic level. When the analytic level is extended to multiple-dyadic levels, a conflict policy towards a target country is less likely to ensue after one conflict by the same source country. Even further, there is an increasing chance of cooperative policy toward other related countries. Using the same example of French opposition to American military action, France sought policies of cooperation with Germany and Russia. More specifically, France, Germany, and Russia coordinated their responses in order to prevent any possible retaliatory policy

towards them from the U. S. At the same time, they collaborated in order to reinforce their policy tools in an effort to deter American military action against Iraq.

The combination of cooperation and conflict seems to appear on collective negotiation tables such as in WTO agreements. If the member countries are always separated into pro and con groups on a given issue, a country can utilize cooperation policy with other countries in a similar group of consistent interests with cooperation policy and concurrently engage in conflict policies such as verbal warning, verbal threat, refusal, and/or opposition towards a country in a different group. This type of policy combination can be changed to reflect concerns over different issues. The United States opposed South Korean resistance to an agricultural issue in a WTO agreement but asked support for and offered proposals regarding manufacturing issues during the same WTO negotiation process. Reality in international relations suggests that a source country who initiates conflict relies interchangeably on cooperation and conflict with a target country.

Statistically and theoretically, more conflict does not necessarily mean less cooperation. This type of inconsistent outcome is attributable to the nature of international relations. Accordingly, the Granger causality tests of cooperation and conflict lead me to conclude that conflict and cooperation events are certainly not always mutually exclusive in essence, as the conceptualizations and measures utilized by previous analysts have assumed (Kegley 1973; Lebovic 1985; Goldstein and Freeman 1990; Goldstein 1991; 1992; Goldstein and Pevehouse 1997). This finding is consistent with Ward

(1982), in which the mix-begets-mix model provides statistically insignificant coefficients across different country dyads. The Granger causality test also yields inconsistent and insignificant results with the panel data, which is a supportive finding for the argument of separation of the two different events (Rummel, 1972; Park and Ward 1979; Mansbach and Vasquez 1981; Ward 1982; Vasquez and Mansbach 1984) in different statistical approaches.

Due to the inconsistent outcomes from panel data analyses, I next analyze the individual cases to find if there are patterns that we might miss when we aggregate all countries, as in the previous analysis.

After the Granger causality test for each case, I exclude several sample countries from the table since the cases of Australia, Germany, Italy, Japan, and Switzerland fail to reject the null hypothesis of Granger causality test.<sup>3</sup> The test statistics tell us that there is very weak or no Granger causality whatsoever, in the listed countries. The only explanation of weak statistical outcomes I can determine is the relative size of state capability and willingness in given countries, although Germany and Japan have been major economic powers since mid 1980s. According to the COW capability measures, Australia, Italy, and Switzerland are ranked at a relatively low capability status<sup>4</sup>. These low-capability small countries lack “opportunity” to rely on foreign policy. On the other hand, Japan and Germany have been increasing their capabilities since World War II and have become significant

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<sup>3</sup> The null hypothesis is specified in Table 1 and 2 of Granger causality tests:  $H_0$  = Coefficients are equal to zero.

<sup>4</sup> The COW CINC scores in 1980 are as follows: the U. S. gets .13, Japan .05, Germany .037, the U. K. .02, Italy .019, Canada .01, Australia .007, the Netherlands .006, Austria .002, and Switzerland .001.

Table 4-2 Granger Causality Tests for Individual Sample Cases

Directions	Variables	U.S.		U.K.		AUSTRIA		CANADA		NETHERLANDS	
		WEIS	COPDAB	WEIS	COPDAB	WEIS	COPDAB	WEIS	COPDAB	WEIS	COPDAB
Conflict → Cooperation	COOP{1}	.69** (.23)	.19* (.1)	-.04 (.22)	.17* (.1)	.2 (.19)	.03 (.09)	.2 (.18)	.09 (.1)	.13 (.18)	.21** (.09)
	COOP{2}	.23 (.26)	.13 (.1)	-.15 (.2)	.12 (.1)	-.02 (.18)	-.01 (.09)	-.2 (.18)	.16 (.1)	-.06 (.17)	.17* (.1)
	COOP{3}	-.43 (.3)	.05 (.1)	-.19 (.14)	-.1 (.1)	.07 (.18)	.07 (.09)	.15 (.19)	.01 (.11)	-.24 (.17)	.08 (.1)
	COOP{4}	-.01 (.28)	.003 (.09)	.08 (.13)	-.003 (.1)	-.04 (.24)	.1 (.09)	-.36** (.16)	-.01 (.11)	-.05 (.16)	.04 (.09)
	CONF{1}	-.01 (.09)	-.003 (.08)	.23 <sup>†</sup> (.07)	.29** (.11)	.30 (.34)	-.83 (.58)	.52 <sup>†</sup> (.19)	-.38 (.56)	.66** (.33)	.74* (.41)
	CONF{2}	-.02 (.08)	.01 (.1)	.35 <sup>†</sup> (.08)	.02 (.13)	.07 (.26)	1.04* (.59)	.03 (.21)	.70 (.54)	.16 (.34)	-.1 (.42)
	CONF{3}	.03 (.09)	.2** (.1)	.05 (.1)	-.01 (.13)	-.1 (.24)	-.38 (.59)	.2 (.21)	.56 (.54)	-.08 (.34)	-.47 (.42)
	CONF{4}	.02 (.08)	.005 (.08)	.1 (.09)	.01 (.11)	-.07 (.26)	-.1 (.55)	-.05 (.21)	1.44 <sup>†</sup> (.54)	.43 (.32)	-.1 (.41)
Null Hypothesis: The followings are Zero		F(4,29)= .07 Sig..98	F(4,111)= 3.92 Sig..005	F(4,29)= 7.97 Sig. .001	F(4,111)= 2.32 Sig. .06	F(4,29)= .3 4 Sig. .84	F(4,111)= 1.08 Sig. .36	F(4,29)= 2.41 Sig. .07	F(4,111)= 2.95 Sig. .02	F(4,29)= 1.46 Sig. .23	F(4,111)= 1.26 Sig. .02
Cooperation→ Conflict	CONF{1}	-.27 (.23)	.8 <sup>††</sup> (.1)	.34 (.23)	.66 <sup>††</sup> (.09)	-.04 (.19)	.49 <sup>††</sup> (.09)	.13 (.2)	.006 (.09)	-.13 (.17)	.26 (.09)
	CONF{2}	-.21 (.21)	-.26** (.12)	.04 (.24)	-.22** (.11)	-.008 (.15)	-.32 <sup>††</sup> (.09)	-.02 (.22)	.1 (.09)	-.24 (.18)	-.04 <sup>†</sup> (.09)
	CONF{3}	.12 (.21)	.22* (.12)	-.15 (.31)	.1 (.11)	-.28** (.14)	.32 <sup>††</sup> (.09)	-.32 (.22)	.06 (.09)	-.21 (.18)	-.01 (.09)
	CONF{4}	.11 (.20)	.12 (.1)	.02 (.29)	.04 (.09)	-.07 (.14)	.001 (.08)	.007 (.22)	-.01 (.09)	.23 (.17)	-.08 (.09)
	COOP{1}	1.24** (.54)	-.31 <sup>†</sup> (.12)	.47 (.69)	-.01 (.08)	.01 (.11)	.02* (.01)	.23 (.19)	.01 (.01)	.35 <sup>††</sup> (.09)	-.009 (.02)
	COOP{2}	1.72 <sup>†</sup> (.61)	.02 (.12)	.14 (.62)	.08 (.08)	.1 (.1)	-.01 (.01)	.06 (.19)	.02 (.01)	.09 (.09)	-.001 (.02)
	COOP{3}	-1.49** (.7)	-.15 (.12)	-.63 (.44)	-.11 (.08)	.51 <sup>††</sup> (.1)	.05 <sup>††</sup> (.01)	.04 (.19)	.05* (.01)	-.02 (.09)	.04** (.02)
	COOP{4}	-.59 (.66)	-.09 (.11)	.09 (.40)	.09 (.08)	-.09 (.13)	-.01 (.01)	.21 (.17)	.01 (.01)	-.007 (.08)	-.02 (.02)
Null Hypothesis: The followings are Zero		F(4,29)= 6.64 Sig..0006	F(4,111)= 3.60 Sig..008	F(4,29)= .6 0 Sig. .66	F(4,111)= .78 Sig. .53	F(4,29)= 7.37 Sig..000	F(4,111)= 4.72 Sig. .001	F(4,29)= .7 0 Sig. .59	F(4,111)= 3.09 Sig. .01	F(4,29)= 3.68 Sig. .01	F(4,111)= 1.24 Sig. .02

Note: COOP = Cooperation, CONF = Conflict

††p &lt; 0.001    †p &lt; 0.01

\*\*p &lt; 0.05    \*p &lt; 0.1

powers since the 1980s. However, their historical membership amongst the Axis powers during the World War II has precluded them from active participation in foreign policy maneuvering. This interpretation of historical memory characterizes Germany and Japan as lacking or systematically limited in their “willingness” to rely on foreign policy even relative to Italy, once a fellow member of the Axis powers.

In general, the cases presented in Table 2 indicate that a majority of the cases do not support the concept of “net-cooperation” because there is no consistent trend of negative coefficients even if there are several negative and statistically significant coefficients. The general results of the Granger causality test are similar to those of the lagged endogenous variable and the other type of policy behavior from the panel data analysis. As far as test statistics are concerned, the American case achieves results weakly supportive of the concept of “net-cooperation.” Test of whether conflict Granger causes cooperation does not achieve statistically significant coefficients in the WEIS or in COBDAB data sets.

Testing whether cooperation Granger causes conflict with COPDAB is somewhat supportive for the concept of “net-cooperation” since it gets statistically significant negative coefficients, but only on its first lag. On the other hand, the American case with the WEIS data set indicates that cooperation Granger causes conflict because it gets statistically significant positive coefficients in the first and second lags following the statistically significant negative coefficients in the model’s third and fourth lags. Other

than that, all of the statistically significant coefficients are mixed and no consistent patterns between conflict and cooperation are apparent.

The outcomes from the British case analyses are just as good as the American cases analyses. In the case of Great Britain, conflict Granger causing cooperation yields consistent positive coefficients in both COPDAB and WEIS while none of the test results are statistically significant in testing whether cooperation Granger causes conflict. This means there are no Granger causal relationships between cooperation and conflict.

Other cases such as Austria, Canada, and the Netherlands also do not yield any positive results supportive of the concept of “net-cooperation.” The Granger causality tests of these cases achieve statistical significance only on the positive coefficient on their first lag. Among first lags of these minor sample countries, testing conflict Granger causing cooperation with COPDAB of Austria and the Netherlands achieves negative coefficients but is statistically insignificant. Although I suspected that any individual outlier case might possibly overwhelm other minor cases and distort the statistical outcome, there is no structural distortion. Instead, the individual case analysis also confirms that there is consistency between the results from the panel data analyses and those of the case analyses; conflict and cooperation are positively correlated or irrelevant. In terms of theoretical findings, it seems that there tends to be either a positive correlation or no clear relationship between cooperation and conflict, as opposed to previous researchers’ assumption of mutual exclusivity.

Before offering any further theoretical explanations of these findings, I want to clarify the characteristics of cooperative and conflict events measurement of COPDAB and WEIS. Cooperation and conflict, at the empirical level, are characterized more accurately as daily routine responses among nation-states rather than extreme cases of conflict and cooperation events such as integration on one extreme and militarized interstate conflict on the other<sup>5</sup>.

Once a country engaged in cooperative behavior in order to maximize national interest at time  $t$ , the same country was more likely to go through conflict behavior at time  $t+1$  because cooperative behavior involves more of an adjustment process than conflict process does, which, as I presented in the example of Sino-American copyright issues, is mostly related to verbal conflict. Once the U. S. and China agreed on the copyright issue, there was a certain degree of understanding and cooperation on both sides. However, the U. S. could now find Chinese intentionally delinquent in domestic policy execution of the copyright agreement. The U. S. might then initiate a conflict event such as complaint, retaliation, and/or protest with Chinese government.

The inverse could also work. When a country takes conflictual actions toward any possible target countries at time  $t$ , the same country often tries to improve the conflictual relationship at time  $t+1$ . In the continuum of foreign policy process to the same target country, American complaints about Chinese violations of copyright law are less likely to evolve into a higher degree of conflict. Instead, conflict by the U. S. is more likely to be followed by

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<sup>5</sup> More details of cooperation and conflict are presented in Appendix 1.

the improvement of Sino-American trade relationships, which is based on mutual agreement by the concerned parties at time  $t-n$  ( $n \geq 1$ ).

I think that it results from the nature of conflict behavior in COPDAB and WEIS. The conflict in these data sets tends more frequently to be routine verbal expression of hostility such as refusing to allow; charge; criticize; making complaints from WEIS and verbal hostility; hostile-diplomatic-economic actions from COPDAB scale. These conflict behaviors are types of policy tools that induce cooperative policy from a target country, instead escalating to higher degree of conflict. As long as a source country succeeds in inducing cooperative behavior from a target country with these minor conflict behaviors, there is no reason to expect a chain of conflict behavior to unfold across later period of time. From the previous example of Sino-American copyright policy, once the U. S. recognizes China's compliance to American complaints of copyright violation, the U. S. would not persist in conflictual behaviors, such as further complaint or criticism of China for violations that have been terminated.

These findings reflect the cognitive value system about cooperation and conflict by decision makers as well as by the international community and general public: cooperation is a desirable policy option for international relations even if it involves an unnecessary but inevitable conflictual relationship, and conflict is undesirable and supposed to be used as a secondary method of cooperation. Although Boulding's (1963) theory apparently views conflict and cooperation to be mutually exclusive, his theoretical works can be quoted to support these relationships between

cooperation and conflict. Boulding (1963) illustrates possible responses toward an initial threat that may be labeled submission, defiance, counter-threat, and the integrative response. Submission is the adjustment of behavior by the threatened. Although the payoffs between the threatener and the threatened are likely to be a zero-sum situation, there is no consequential conflict response. If the threatened submits to the threatener, the submission will be coded as a cooperative behavior.

In the case of defiance, the threatened might refuse or deny the initial threat mainly because the threatened thinks that the threat is not worth carrying out. Then, the situation might return to the status quo ante. Under this circumstance, the initial threat is more likely to be followed by some sort of minor conflict behavior such as denying or refusal. It could be coded a conflict or neutrality but not a serious conflict, such as militarized conflict.

In the case of counter-threat, there is a spiral escalation of conflict by both the threatener and the threatened sides. Once the threatened responds with a counter-threat, the conflictual relationship escalates to higher degrees of conflict. Therefore, the outcome of a counter-threat is a negative-sum situation: where a gain of one side equals exactly a loss of the other side. In terms of empirical data building, a counter-threat is definitely coded using two conflicts in a row.

Integrative response is the last possible type of answer to an initial threat. It may be hard to analyze because it involves many different forms. However, an integrative response means that both threatener and the threatened try to establish a community between themselves through

cooperative efforts and try to produce common values and interests (Boulding 1963, 430). Obviously, then, an initial threat and counter-threat could be followed by a mutual effort toward cooperative behavior by both the threatener and the threatened.

The counter threat option among four types of answers directly leads to conflict relations. In addition, the integrative response is combined with any one of the first three responses (Boulding 1963). Submission can occur when the threatener is eventually merged into a larger culture and the threat will disappear as was the case when slavery was abolished in the United States partly as a result of international pressure and cultural change. Defiance can also be mixed with an integrative system as an example of nonviolent resistance. The example of a counter-threat within an integrative response is rare because a counter-threat is innately disintegrative. However, once a counter-threat occurs, integrative response is possible. For example, this might be the case in a case of a carefully controlled counter-threat like a labor union threatening to strike. In international relations, an example would be a disarmament negotiation and subsequent collective negotiation. When the negotiation process faces a stalemate, one actor or a few actors can provide counter-threats in order to achieve an initial goal such as disarmament agreement.

As I briefly mentioned before, this reaction originates in the cognitive value system shared by human beings. Ultimate victory of an integrative system over a threat system is assured by the fact that more good than harm can be done through cooperative policy. While doing harm has a limit of total

destruction (or zero good), doing good has no definite upper limit (Boulding 1963 432). This could be a theoretical support for the positive coefficients that suggest conflict leads to cooperation.

The positive coefficient for 'cooperation leading to conflict' in my empirical result is not justified simply by Boulding's (1963) theory of integrative response. According to the theoretical framework by Boulding (1963), a cooperative suggestion is followed by a cooperative response; no matter the mode of behavior, all of the responses – submission, defiance, counter-offer, and integrative response – could lead to cooperative events. This theoretical explanation is inconsistent with my empirical results. A plausible explanation for this empirical result is related to the temporal domain and human nature. First of all, the observation frequency in this analysis is a quarterly measurement of cooperation level. Three months is long enough to get a response from a target country to a cooperative suggestion even if it refuses any cooperative responses. A second and more important explanation is related to human nature. Once both sides make sure that the other side agrees on cooperative behavior, both sides try to maximize their own utility, where egoistic motivation induces minor conflicts. From this point of view, human nature, in a negative sense, is a major aspect of the 'cooperation leading to conflict' mechanism. This is partly an appropriate phenomenon where the realist explanation of cooperation works; cooperation partners pay more attention to relative gains rather than absolute gains. When an actor faces cooperative events, the actor turns toward a utility

maximization behavior instead of risk avoidance. Foreseeable benefits from a cooperative event lead the participants to compete for higher relative benefits.

On the other hand, conflict leading to cooperation is also possible.

When an actor faces even minor costs or risks as in a verbal conflict or threat, the actor typically prefers risk-avoiding behavior to risk-accepting behavior most of the time. Because of these two behavior patterns, a higher current cooperation level may lead to a higher conflict level and vice versa.

#### Granger Causality of the Lagged Endogenous Variable

Regardless of the presence of a positive coefficient between conflict and cooperation, countries' current cooperation and conflict levels are more likely self-driven by their own past levels of cooperation and conflict behavior rather than their effect on each other. The first row of Table 1 refers to Granger causality test of how past values of cooperation levels influence the current levels of cooperation. The coefficients of cooperation at various lags are positive and statistically significant in two different data sets. This means that more cooperation at time  $t-n$  leads to more cooperation at time  $t$ .

On the other hand, the second row of Table 1 describes how past conflict levels influence current conflict levels. Generally speaking, the past conflict levels are negatively correlated with the current conflict levels, although there are inconsistent relationships across different data sets. As the second row of Table 1 presents, the coefficients of conflict with the WEIS data set are negative with statistical significance level of .001, while the COPDAB data set yields a negative and statistically significant coefficient only at the second lag.

It is hard to provide a detailed explanation of the different Granger causal directions between cooperation and conflict, in the various cases analyzed, and it is outside of the scope of this analysis to do so. However, the statistical outcome indicates that cooperative relationships have reinforcing effects and conflict relationships have weakening effect across time. Once a country is cooperative toward the world, it continues to be cooperative. Unless a source country faces total deception and a sucker's payoff from its cooperative partner, the country will try to maintain or improve its previous cooperative level because it serves to benefit from this type of behavior.

Conversely, once a country employs conflict behavior, it tends to return to cooperative behavior because conflict behavior is a less stable policy option for both domestic and international politics. While cooperative policy is followed by another cooperative policy, conflict policy is generally employed as an ad hoc policy alternative in order to show the resoluteness of a source country in a given issue. This finding is supportive of Mansbach and Vasquez (1981), who criticize the realist assumption that the nature of international relations seems to be conflict-oriented rather than cooperative. At the same time, it also supports Boulding's (1963) integrative response theory.

Conflict relationships do have weakening effects. Once a country relies on conflict behavior toward a target country, it is hard for it to continue similar conflict behavior next time, no matter what the outcome of past conflict has been. If the conflict behavior results in the realization of a national goal, there is no reason for conflict to continue. In the case of failure with conflict behavior, a country faces two options: conflict escalation and cooperative behavior.

Although it is a burdensome situation for a country to decide whether it should employ conflictual or cooperative behavior when facing a failure of conflict behavior, escalation of conflict is a rare choice because of the inefficiency of cost-benefit consideration. When the first conflictual policy could not attain its political goal, there is no guarantee to achieve the same goal with escalation of that policy.

The combination of these findings, positive coefficients for cooperative behavior and negative coefficients for conflict behavior, means that Tit-for-Tat is a working paradigm that explains interstate cooperation under an anarchic system of international relations: cooperation, here, is the most efficient and stable strategy to maximize national interests (Axelrod 1980). However, the purpose of my dissertation is not to evince the efficiency of TFT but to describe and analyze under what circumstances a country sways between cooperation and conflict behavior.

However, based on these considerations, it is clear that cooperation and conflict do not appear to be in an orthogonal mode. Rather, those seemingly opposite types of foreign policy behavior are basically independent policy domains under which a decision maker can maximize his/her own national interest. This means that a foreign policy behavior is better explained by the same type of behavior as Ward (1982) finds in his dyadic analyses. Therefore, I argue that two different foreign policy tools are employed independently of and interchangeably with each other.

Other interesting findings in Table 2 from individual case analyses demonstrate some opposite trends between the models with WEIS and

COPDAB data. While there are a few negative coefficients in the WEIS data analyses, COPDAB data yield several negative coefficients with statistical significance regardless of the significance level of each coefficient. This is attributable to the different measurement scheme and different temporal domain. First of all, COPDAB and WEIS have their own biases. While WEIS relies only on the New York Times, COPDAB utilizes multiple sources of information. Owing to the difference of information sources, Vincent (1983, 163) argues that COPDAB tends to under-represent major powers and European and Asian states, while WEIS tends to under-represent Middle Eastern, African and Latin American states. However, the test statistics show no consistent logical connection between under-representation and statistical significance. Despite WEIS's better representation of major power behavior, the test outcome is not as good as that of COPDAB.

The next issue is related to the different temporal domain. While COPDAB covers a major period of the Cold War, 1948 to 1978, WEIS mostly covers the period after the Cold War, 1987 to 1997, in my research design.<sup>6</sup> During the Cold War period, cooperation and conflict might have been a mutually exclusive because the entire world had experienced the unprecedented tension between the East and the West camps. Therefore, the behavioral pattern of a country might have been static along ideological lines. The typical international behavior during the Cold War is well represented by the Cold War mindset: my enemy's enemy is my friend, and my enemy's friend is my enemy. If it was an actual standard of international behavior

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<sup>6</sup> The temporal domain of WEIS (McClelland 1971) ranges from 1966 to the present.

during the Cold War, the negative coefficient of the COPDAB data analyses is a reasonable outcome. Therefore, the concept of “net-cooperation” is supported by the Cold War era. On the other hand, the outcome from WEIS (1987-1997) brings opposite results in the form of positive coefficients. According to the results, more cooperation leads to more conflict, and vice versa.

The main purpose of my Granger causality analysis is the clarification of the conceptual typology. Regardless of their argument, prominent authors in this area agree on the importance of clear conceptualization (Kegley 1973; Mansbach and Vasquez 1981; Vasquez and Mansbach 1984). Although Kegley (1973) emphasizes the importance of typology in foreign policy behavior, his results show that the foreign policy behaviors are arranged along the circumplex structure of hostility and friendship on one side and activity and passivity on the other side. Vasquez and Mansbach (1984) contend that conceptual ambiguity causes an intractable problem in the study of interstate cooperation. More specifically, they argue that it is an inappropriate approach when the cooperation-conflict is treated as if it were in a single continuum. By separating cooperation and conflict, one can avoid the possibility of this critique of methodological uncertainty. However, Vasquez and Mansbach (1984) seem to organize the concept of foreign policy in a continuum after dissecting the nature of interstate cooperation into three major dimensions of national foreign policy: agreement-disagreement, positive-negative, and friendship-hostility. This is the case where the conceptual definition is not realized in the empirical level.

This problem is more serious in Goldstein and Pevehouse (1990), Goldstein (1992), and Goldstein and Freeman (1997), where the authors use the concept of “net-cooperation” as a major dependent variable. While Goldstein (1992) argues that the strength of the WEIS measurement is categorical measurement, which explicitly denies the possibility of reducing data to one dimension of conflict and cooperation, applying weighting scale with the concept of “net-cooperation” makes it an ordinal measurement.

However, the statistical outcomes from both panel data analyses and case analyses support the opposite of the single-continuum argument. The concepts of conflict and cooperation are separate rather than merged; in terms of the statistical results, they are irrelevant to one another at best and they covary positively at worst. In other words, when a country engages in any type of foreign policy, either cooperation or conflict, the same country simultaneously relies on the other type of foreign policy behavior. This is the mutually reinforcing nature of cooperation and conflict.

Based on the outcomes of panel data and individual case analyses, I conclude that there are no consistent statistical findings that support the concept of “net-cooperation.” Although “net-cooperation” can remove data noise (Goldstein and Freeman 1990), it is neither theoretically based nor empirically tested. Rather, it is used simply for methodological convenience. My argument for separating conflict and cooperation is based on the results of the Granger causality test, which are logically solid and methodologically appropriate. The Granger causality test, which directly addresses the nature of conflict and cooperation, could be a new way of testing their relationship.

The findings from the Granger causality test show that cooperation and conflict are more likely to be independent or positively correlated. After I present these findings, establishing conflict and cooperation as two separate foreign policy phenomena in the readers' mind, the bulk of my empirical analyses will treat them as conceptually independent policy events. My conclusion supports the previous argument that cooperation would be the most common form of international interaction (Ward 1982; Axelrod, 1984; Keohane 1984).

## Time Series Analysis of Domestic Factor Effects

### Introduction

I theorized that the interstate cooperation level of a country is a function of the country's domestic conditions and its past value of cooperation and conflict. More importantly, domestic conditions are determining factors for foreign policy based on two-level game theory, diversionary theory, and foreign policy decision-making theory. This is a challenge to a prominent argument in the study of interstate cooperation because the TFT with Richardson's arms race model, the currently dominant paradigm, emphasizes the importance of reciprocity and thus disregards the importance of domestic changes.

For my theory, cross-sectional time series analyses, focusing on the domestic impacts to foreign policy, provide a more sophisticated and accurate picture of cooperative and conflictual behavior. The panel data analyses also allow me to test the concept of "net-cooperation" with similar independent variables along the different models. In an extension of the Granger causality

test, the Pooled Cross-Sectional Time Series (PTS) analyses grant me the ability to compare the appropriateness of different dependent variable in terms of statistical standards. The panel data analyses of cooperative events control for conflict and the lagged level of cooperation. In addition, the conflict model also controls for the cooperation and the lagged dependent variable.

#### Effects of the Other Type of Event: Cooperation vs. Conflict

Before discussing the impact of domestic variables, it is worth reiterating the Granger causality test of cooperative and conflictual events because the model for PTS analysis also includes the lagged endogenous variable and the other type of foreign policy behavior on the right hand side of the equation. Because each model uses different dependent variables (i. g. cooperation and conflict), they allow me to compare the consistency of PTS and the Granger causality test.

The test statistics generally demonstrate that cooperation and conflict are in a mode of statistically significant and positive correlation, which is consistent with the Granger causality test. This means that the current level of conflict is better explained by the current cooperation level, and vice versa. This outcome is also consistent throughout all of the models run with two different data sets, which confirms that cooperation and conflict are not mutually exclusive.

In general, the WEIS data set yields better outcomes than COPDAB in terms of statistical significance. There is no clear explanation for the difference between the two major cooperation event data sets, but these differences must be attributable to the different coding schemes and different

Table 4-3 Panel Data Analyses with FGLS

Dependent Variables	COOPERATION		CONFLICT		NET-COOPERATION	
Independent Variables	WEIS	COPDAB	WEIS	COPDAB	WEIS	COPDAB
Conflict	.258†† (.015)	.219†† (.029)	-	-	-	-
Cooperation	-	-	1.71†† (.07)	.176†† (.032)	-	-
Conflict t-1	-	-	-.294†† (.035)	.714†† (.03)	-	-
Cooperation t-1	.582†† (.024)	.678†† (.031)	-	-	-	-
Net-cooperation t-1	-	-	-	-	-.295** (.04)	.765 †† (.03)
Presidential Election	35.194* (18.633)	-6.8 (10.18)	-83.44* (62.42)	22.96 ** (10.22)	1.69 (63.78)	-29.61 ** (10.77)
Congressional Election	25.397† (9.481)	-2.42 (4.07)	-60.23** (30.8)	3.17 (4.1)	41.53 (32.19)	-3.02 (4.46)
Capability Status	25.778† (9.481)	19.35†† (5.08)	-49.27* (37.36)	2.12 (5.28)	-52.93* (34.11)	10.10 * (4.33)
Consumer Price Index d	.876 (7.641)	6.36 (8.31)	-.779 (18.69)	-5.25 (7.86)	1.746 (20.24)	8.09 (9.25)
Manuf. Production d	-.087 (1.071)	-2.13 (1.55)	-.26 (2.11)	1.17 (1.43)	.514 (2.33)	.855 (1.74)
GDP d	-1.522 (3.697)	3.06 (7.92)	7.6 (11.4)	-2.94 (7.27)	-8.9 (12.2)	2.59 (8.84)
Constant	-4.183 (7.619)	12.55 (3.5)	3.69 (27.3)	-6.42* (3.57)	-2.58 (27.8)	8.52† (3.72)
	Wald chi2 = 4541.1 Prob > chi2 = .0000	Wald chi2 = 1827.9 Prob > chi2 = .0000	Wald chi2 = 690.3 Pror > chi2 = .0000	Wald chi2 = 1449.7 Prob > chi2 = .0000	Wald chi2 = 43.2 Prob > chi2 = .0000	Wald chi2 = 723.04 Prob > chi2 = .0000

Note: t-1 refers to lagged, and d refers to differenced

††p &lt; 0.001    †p &lt; 0.01

\*\*p &lt; 0.05    \*p &lt; 0.1

temporal domains used. Although it is argued that there is empirical compatibility between WEIS and COPDAB (Vincent 1983; Reuveny and Kang 1996) that make it possible to splice these two different data sets, I am skeptical. The statistical outcome from Vincent (1983) and Reuveny and Kang (1996) are not strong enough to indicate that these two data sets are compatible enough to be merged into one.

Vincent (1983) tests the compatibility between WEIS and COPDAB. The correlation coefficient varies along time. The correlations between the two data sets are non-recognizable in the years of 1971, 1972, and 1975 (Vincent 1983, 163-164). Reuveny and Kang (1996) only test six traditional rivalry dyads, and the correlations between COPDAB and WEIS range from .99 to -.047. The sum of the cooperation score gets pretty low correlation coefficients across dyads.<sup>7</sup> On top of that, the outcomes of COPDAB analyses are not as good as those that use WEIS, since COPDAB tends to under-represent major powers and European and Asian states (Vincent 1983, 163).

Differing from the results of previous research, my statistical outcomes show that more cooperation concurrently leads to more conflict – one of major findings of my empirical analysis. Despite observing minor discrepancies between the two different data sets in these panel analyses, the findings support my argument that cooperation and conflict are separate policy tools that a decision maker can choose freely to alternate and that sometimes both

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<sup>7</sup> In terms of the correlation coefficient, the Honduras- El Salvador dyad gets -.047, the U.K and Argentina dyad gets .07, and the Egypt-Libya dyad gets .3. These are the lowest cases. The Pakistan-India dyad, the highest case, gets .83. These outcomes are not strong enough to splice two different data sets, no matter what the authors' argument say (Reuveny and Kang 1996, 298).

are used at the same time in order to maximize the national interest. Thus, I conclude that conflict and cooperation are symbiotic rather than mutually exclusive in nature.

#### Effect of the Lagged Endogenous Variable

The effect of memory on foreign policy behavior is the next issue. The lagged dependent variable, past value of foreign policy behavior, is the single most important independent variable across all models. Except for the WEIS data with conflict as the dependent variable, all lagged dependent variables are statistically significant and positively correlated with the dependent variables across different models.

I would argue that past conflict levels are positively related to current cooperation level and past cooperation levels are also positively correlated to current cooperation level, with the exception of the WEIS data analysis of conflict behavior, which included a lagged endogenous variable. This outcome signifies a trend in policy behavior; once a state is cooperative, that state is more likely to be cooperative in the future. At the same time, any conflict enacted by a state at time  $t$  is going to be followed by more cooperation in the near future, other factors held equal and to avoid any possible conflict in the near future. This finding supports the statement that international relations are not as conflict-oriented as realists assume. Instead, international relations are more likely to be cooperative. Generally speaking, advanced democratic countries tend not to rely on risky conflict policy.

The WEIS data analysis with conflict as a dependent variable yields a negative and statistically significant coefficient for the cooperation variable

while the COPDAB data analysis with conflict as a dependent variable gets a positive coefficient for the cooperation variable. This interesting finding could be a result of the different temporal domains covered by COPDAB and WEIS. My argument is that these different outcomes are attributable to the Cold War effect. Once the Cold War effect is introduced, this finding is consistent with other outcomes.

During the Cold War era, alliance patterns were stable and static. Thus, cooperative and conflictual relationships can be traced along ideological lines drawn between the communist and capitalist blocs. On the other hand, there are no ideological blocs during the post-Cold War era. Because of this, international relationships have become dynamic with nation-states' behaviors driven by national interest rather than ideology.

The lagged endogenous variable of conflict level with the COPDAB data yields a positive coefficient, where the conflict level is a dependent variable. Since COPDAB covers from 1960 to 1978, this outcome reflects static foreign policy behavior during the Cold War era. During the Cold War era, conflictual relationships were reinforced by the two different ideological blocs. On the other hand, with the WEIS data which covers the period right after the Cold War era, the lagged dependent variable yields a negative coefficient, which means that a nation-state tries to be less conflictual once it has engaged in conflict policy during a previous period, other factors being equal. States seem not to have usually relied on conflict options for two consecutive periods during the post Cold War era, while it was a lot more

probable that states were continuously relying on conflict option during the Cold War era.

This explanation is consistent with the assumptions of alliance patterns in balance of power theory and power preponderance theory (Lemke and Kugler 1998). According to the systemic theory of conflict, it is an appropriate description to say that the alliance patterns are more flexible under the balance of power system than the power preponderance system. Since alliance behavior during the Cold War era was more bound to the ideological bloc, it was more inflexible as power transition theory assumes. In contrast, the post-Cold War era exhibits more flexible alliance patterns free from the same degree of ideological bondage. Therefore, conflict behavior with the lagged conflict variable yields a positive coefficient with the COPDAB data for the Cold War era and a negative coefficient with the WEIS data for the post-Cold War era.

Among the three models with different dependent variables, cooperation, conflict, and “net-cooperation,” the model which sought to explain “net-cooperation” is worse than the others in terms of the goodness of model fit, which leads me to once again conclude again that the concept of “net-cooperation” is not accurate. Instead, it is used to remove data noise for methodological convenience (Goertz and Regan 1997). Based on this finding, coupled with those from the earlier Granger causality tests, I conclude with some confidence that empirical analyses would do better if they were to treat cooperation and conflict separately.

Power Status as a Condition of Willingness and Opportunity

The capability status of an individual state is positively correlated with frequencies of foreign policy involvement across different data sets and models, an outcome supportive of the hypothesis. Major states are more likely to engage in both cooperation and conflict behavior, with the exception of the states observed with the WEIS data analysis with conflict behavior as a dependent variable, in which the superpower status yields a negative and statistically significant coefficient. In general, superpower status is positively correlated with foreign policy engagement.

In a general assessment of previous empirical analyses, Platter and Mayer (1989) also argue that major states dominate the initiation of international interaction, although there is not proof of a structural tendency for major states' behaviors in their result. However, when Platter and Mayer (1989) "decompose" foreign policy behavior into initiators and receivers, the defined differences between major and minor states disappear at the dyadic level of analysis. My analyses are also consistent with Platter and Mayer (1989), who analyze only COPDAB data at the dyadic level. As Table 3 shows, the capability status variable achieves a statistically insignificant coefficient in the conflict model with COPDAB data. However, the same independent variable yields a statistically significant coefficient in the cooperation model with both the WEIS and COPDAB data sets. Based on these findings, I conclude that capability status matters in foreign policy engagement. Major countries tend to rely on more cooperation and on less conflict.

The concept of willingness provides a more theoretically based explanation for this foreign policy trend of superpowers (Most and Starr, 1989).

Willingness refers to the desire to choose among alternatives and accept the costs and benefits accompanying these alternatives. Willingness is bound by an objective opportunity term, at least empirically. In reality, an actor decides on policy options after considering the objective capability conditions. Major countries with democratic regimes are more likely to consider cooperative policies in order to maximize their utility according to a cost-benefit calculation, even if both cooperation and conflict are available options for them. On behalf of cost-benefit efficiency, the cooperation behavior of major countries is reinforced by opportunity and willingness together. The political leaders try to utilize their opportunity for the willingness of better political causes, thus efficient policy options.

This opportunity and willingness explanation is consistent with Leeds' (1999) accountability and flexibility theory. Once a major state tries to cooperate with other countries in order to achieve its national interest, there is no serious objection by the general public to its decision maker. This is because democratic regimes are characterized by more accountability and less flexibility (Leeds 1999), which ultimately facilitate cooperation. Once a decision maker decides on a cooperative foreign policy, domestic groups try to adjust cooperation policy, and finally, policy adjustment decides beneficiaries of the cooperation foreign policy. As soon as this adjustment process settles down, social groups will promote accountability and discourage flexibility because policy stability is critical for their interest.

On the other hand, as Table 3 shows, conflict behavior related to capability status is unclear. While capability status variable with the WEIS

data yields a statistically significant negative coefficient, the same variable with COPDAB achieves a statistically insignificant coefficient. Therefore, I argue that capability status is less correlated with conflict behavior than it is to cooperation behavior. If a major country achieves its national interest mainly through cooperation policy, as the test results of cooperation model show, it is less likely for the same country to switch to a conflict policy on the same occasion. In terms of the consideration of willingness and opportunity, major countries have the opportunity but lack the willingness to engage in conflict behavior. In some sense, lack of willingness to use conflict behavior offsets the high opportunity to employ conflict policy.

#### Domestic Economic Conditions

Since domestic economic conditions are one of the determining factors of foreign policy as well as domestic policy trends, diversionary use of force theory and most election studies employ economic conditions as an independent variable in order to explain policy behaviors. However, the test outcomes in my model show that the economic variables achieve the weakest results of all variables included. All of my economic variables are found to be statistically insignificant. This is in contrast to many of the most well-known empirical tests of diversionary theory, which report statistically significant effects for economic variables such as price index, unemployment rate, and a stock market index (Meernik 1994; DeRouen 1995).

According to diversionary theory, domestic economic downturns are supposed to have a positive impact on conflict behavior. The outcomes of my models show that deterioration of economic conditions does not lead to either

cooperative or conflictual policies undertaken for diversionary purposes.

Statistically speaking, consumer price index and GDP as indicators of the general economic condition have nothing to do with foreign policy behavior as they are operationalized in this study.

This finding signifies that cooperation in addition to conflict policy, as routine policy choices, are not strong enough to divert public attention away from economic hardship. While economic downturn is a long-term trend, routine cooperation and conflict events cannot last long enough to attract public attention. In terms of cost-benefit calculation, conflictual policy normally involves a higher cost than cooperative policy, *ceteris paribus*, even if conflictual policy does not necessarily mean military activity in my data analysis. Political leaders are less likely to rely on conflictual policies to handle domestic economic hardships in order to improve GDP and inflation rates change.

However, the main issue of interest in these analyses is the relationship between cooperation and economic conditions. Due to the cost efficiency of cooperation policy in diverting public attention, we might expect that cooperation correlates positively with economic hardship, even if conflictual policies do not. However, my empirical tests show no statistically significant relationship between cooperation and economic conditions.

Therefore, I conclude that the diversionary use of cooperative events as well as conflict events seem not to occur in industrialized democratic countries, such a finding corroborated by Lian and Oneal (1993) and Leeds and Davis

(1997), scholars who are also skeptical of the connection between foreign conflict activity and domestic political/economic conditions.

Among individual case analyses, only CPI in the Japanese case with COPDAB data achieves results consistent with the hypothesis. In other words, Japanese decision makers apparently used cooperation events for a diversionary purpose as far as consumer price index is concerned. On the other hand, GDP in German case with the WEIS data yields an outcome that is counter to my expectation. When the economy goes well in terms of GDP, German decision makers engage in more cooperative events. One can interpret this finding as showing that as the German economy tries to recover from economic hardship with interstate cooperation instead of relying on diversionary use cooperative policy.

Among other cases, the American case is arguably the most important. It can be considered as a base line, since a majority of diversionary theory analyzes the U.S. case only. Analysis of that shows that GDP changes correlate with foreign policy behavior in that case other factors being equal. As Table 5 shows, the U.S. engages in more cooperation when its economy does badly and more conflict when the economy does well, which counters the traditional view of diversionary theory. However, this supports my hypothesis (H4-1). Although the U.S. case analysis is important for diversionary use of foreign policy theory, it is hard to generalize with the confirmatory results from a single case: the statistically significant correlation coefficient between economic downturn and cooperation engagement for a diversionary purpose. When I consider that most of the empirical analyses of

diversionary theory use specifically American cases, I am skeptical of the legitimacy of my findings; is observation of one case enough to solidify the diversionary use of force theory? I would argue that the U. S. case is indeed noteworthy because only hegemonic powers, unlike minor powers, can utilize foreign policy to take care of domestic and international politics.

When political leaders in the U. S. observe economic failure, they rely on cooperative events instead of conflictual policies to divert public attention because cooperation policy involves fewer political costs than conflict policy, regardless of the success or the failure of foreign policy initiation. When the outcomes of foreign policy are considered, conflict policy is a much less preferable option for political leaders who undergo a domestic economic failure. When a conflict involvement results in defeat or recession, a political leader must accept the political burden in addition to the economic hardship, which also threatens re-electability of the political leaders. Therefore, an American political leader is less likely to rely on conflict policy when economic conditions are poor. When economic conditions are positive, an American political leader is more likely to engage in conflict behavior. This might be interpreted as political leaders taking advantage of domestic conditions when they need to engage in conflict behavior for strategic purposes.

Despite differences in detail for each sample case, I conclude that economic conditions have little impact on foreign policy outcomes in terms of generalizability. Despite the fact that the finding does not appear to be generalizable, the diversionary use of cooperation events is still a justifiable interpretation of the American case.

### Distribution of Political Power among Social Sectors

The panel data analysis shows that manufacturing production, as a measure of power distribution among social classes, also does not affect foreign policy decision-making. Although this hypothesis is also supported by two-level game theory (Putnam 1988), political economy theory (Gourevitch 1978; Katzenstein 1985; Keohane and Milner 1996), and party ideology theory (Garrett and Lange, 1986), the outcome means that “state in society” theory seems not to affect the general trend of foreign policy in the sample states. In other words, changes in size of the manufacturing industry as a substitute for a class composition measurement in the sample countries do not have a significant short-term effect on foreign policy. This is because changes in social class distribution take more than a quarter to affect foreign policy outcomes. My opinion is that since the general public has less information on international relations than on domestic politics (Holsti 1996), changes in the distribution of industrial composition among sectors takes more than a quarter to be reflected in foreign policy outcomes. The impact of economic variables on foreign policy choice varies along the countries in the sample as my analyses of individual cases show. Therefore, the MPI variable needs to be reviewed on a case-by-case basis.

The American case analysis produces interesting figures. In the WEIS analysis, an increase in manufacturing products correlates with fewer incidents of conflict events, with statistical significance, other factors being equal. According to Wittkopf (1994), business elites and labor groups are more likely to be internationalists who oppose interstate conflict and support

dovish foreign policy. In other words, the presence of more internationalists leads to fewer conflict occurrences in the U. S. Although the cooperation model is not statistically significant, the direction of the coefficient is consistent with Hypothesis 3. These effects are reflected in the “net-cooperation” model of the U. S. case, where MPI is statistically significant and positively correlated with “net-cooperation.”

In the British case, the manufacturing production variable yields results opposite to the U. S. case, with statistical significance; when the industry sector gets bigger, Great Britain engages in less cooperation. I think this effect is attributable to the characteristics of the British economy during the last century. The British economy during the 1980s and 1990s was less internationalized, British labor groups were politically well organized, and manufacturing sectors were conservative or isolationist. Therefore, the strength of manufacturing was inversely correlated with the use of cooperation in foreign policy. Generally speaking, isolationists regard cooperation as less advantageous for their own economic interests in the domestic market. This is consistent with “state in society” theory, which argues that labor groups in less internationalized states with political strength might oppose internationalized liberal policy with other states.

Based on these findings, I also conclude that class power distribution fails to obtain any generalizable result in the panel data analysis. However, it brings theoretically meaningful findings in the American and British cases, which support the “state in society” theory.

#### Domestic Political Conditions

Domestic political conditions are also determinant variables in foreign policy decision making theory and two-level game theory, as well as diversionary theory. In the panel data analysis, domestic political conditions are mostly significant variables in both cooperation and conflict models, even though there are minor discrepancies between the COPDAB and WEIS data sets. These findings support my theory of diversionary use of cooperation policy. At the very general level, the foreign policy decision making theory of the government politics model emphasizes the importance of domestic political dynamics such as coming elections (Allison and Zelikow 1999). When facing threats from other actors, a country or a decision maker has to respond in various ways. A decision maker can respond to a threat with counter-threats, concessions, or reticence. Allison and Zelikow (1999) argue that the variance of policy outcomes is a function of domestic politics, such as electoral cycles and economic conditions, in each country's government politics model. Ultimately, these domestic conditions affect the willingness of policy choice.

At a more specific level, diversionary theory might delineate specific relationships between political factors and foreign policy choice. An earlier empirical analysis of diversionary theory purported to demonstrate the direct correlations between domestic conditions and presidential willingness to use military force. However, recent empirical analyses yield complicated relationships between them. For example, some argue that decision makers will be more likely to use force when domestic conditions are good (Ostrom and Job, 1986). Others point out the possibility of strategic behavior

concerning diversionary use of force theory. The decision makers in a target country refrain from conflictual action when the domestic conditions of the source country are vulnerable. They do this because they recognize the possibility that decision makers in a source country can take advantage of conflictual action to divert public attention from domestic economic failure to interstate conflict intervention (Meernik 1994; Leeds and Davis 1997). Ostrom and Job (1986) found that presidents were more likely to use force when their overall support rates were high, when presidential approval rates declined over time, when the misery index rose, and when election periods were approaching. The outcomes from the WEIS data analyses support those findings on the complicated nature of diversionary use of force.

According to the results from the WEIS analyses, while both congressional and presidential election cycles are positively correlated with cooperative events, the same election variables are negatively correlated with conflict events. On the other hand, COPDAB analyses show, in a different time period, that none of the electoral cycles are statistically significant when the focus is on cooperation events only. Only the presidential election variable is positively correlated with COPDAB conflict events. To summarize, the COPDAB analyses show that electoral cycles have nothing to do with cooperation events while at the same time showing that electoral cycles lead to more conflict events. On the other hand, the WEIS analyses show that electoral cycles lead to more cooperation and less conflictual events, which is consistent with my hypotheses. These outcomes show somewhat opposite results between the two data sets with COPDAB yielding statistically weak

outcomes. Therefore, I will focus on the WEIS data analyses to discuss the impact of electoral cycle on foreign policy behavior.

My analysis supports the diversionary theory as discussed by Lian and Oneal (1993), who argue that decision makers rely on cooperation and conflict events with media coverage in order to divert public attention from their domestic policy failures. As elections approach, decision makers in democratic countries are more likely to rely on cooperative events instead of expensive conflict events in terms of political costs. As I already mentioned in the theory chapter, cooperative events such as summit meetings, treaty signings, and official trips are events that possibly affect presidential support rates (Muller 1970; Kernell 1978; MacKuen 1983; Ostrom and Simon 1985; and Broday and Shapiro 1989) and ultimately reelectability. Since a decision maker can take advantage of cooperative events, he does not have to utilize conflict events in order to raise his support rates and chance of reelection either in parliamentary or in presidential systems. Although COPDAB and WEIS do not trace down the outcome of meeting and visiting, the events themselves can attract media coverage, thereby diverting public attention from domestic affairs.

At the same time, decision makers intentionally try to avoid conflict events when facing presidential, congressional, and parliamentary elections regardless of institutional types such as presidential or parliamentary systems. When a decision maker uses diversionary conflict policy, it could involve militarized action in order to draw public attention away from domestic politics.

Thus, conflict events for a diversionary purpose are almost always more expensive policy options than cooperative events for the same goal.

In terms of rational choice, decision makers should prefer to rely on less expensive policy tools in order to achieve the same policy goals. As long as success in the coming election is a primary goal that inspires decision makers to divert public attention from domestic policy failures, cooperation events are preferable to conflict events, unless the conflict events are easily justifiable, due to circumstantial maturity of conflict initiation and/or intervention and guaranteed easy success and/or victory.

A diversionary use of conflict participation involves costs incomparable to verbal and minor conflict behavior or to cooperation behavior, even if conflict policy at the initial stage does not plan to expand militarized interstate disputes. Because minor verbal conflict may involve more political costs than cooperative policy for a given policy purpose, it is hard to find consistent results from various empirical analyses of diversionary theory using militarized interstate intervention as a dependent variable. This explanation consistently supports the positive significant coefficients of election variables with cooperative events and the negative significant coefficients of the same variable with conflict events from Table 3.

In order to distinguish the effect of the diversionary use of foreign policy, the cases of the United States and the United Kingdom are more helpful than those of minor countries because the latter do not have opportunity and thereby do lack willingness to use interstate conflict intervention as an appropriate foreign policy tool.

Table 4-4 Panel Data analyses for the American and British Cases

Dependent Variables	COOPERATION	CONFLICT	NET-COOPERATION
Independent Variables			
Conflict	.257†† (.032)	-	-
Cooperation	-	1.67†† (.159)	-
Conflict t-1	-	-.151** (.08)	-
Cooperation t-1	.492†† (.065)	-	-
Net-cooperation t-1	-	-	-.106 (.106)
Presidential Election	-18.75 (67.26)	27.0 (168.07)	-89.74 (183.33)
Congressional Election	111.44** (51.2)	-239.66** (130.02)	196.28 (141.71)
Support Rate	2.012 (1.734)	.328 (4.293)	-9.599† (3.793)
Consumer Price Index d	29.57 (36.52)	-88.4 (91.78)	73.68 (100.73)
Manufacturing Production d	20.23 (25.2)	-150.78† (61.0)	153.91** (66.96)
GDP d	-52.83 (52.74)	135.54 (131.57)	-15.28 (139.5)
Constant	-27.57 (77.65)	-17.84 (195.31)	126.82 (212.13)
	R <sup>2</sup> = .87 Wald chi2(8) = 472.63 Prob > chi2 = .0000	R <sup>2</sup> = .72 Wald chi2(8)=184.9 Prob > chi2 = .0000	R <sup>2</sup> = .15 Wald chi2(8) = 13.14 Prob > chi2 = .0068

Note: t-1 refers to lagged, and d refers to differenced  
††p < 0.001    †p < 0.01  
\*\*p < 0.05    \*p < 0.1

### The Anglo-American Model

Support rates are analyzed with American and British cases because of data availability. As Table 4 shows, there is no statistically significant correlation between decision makers' support rates and foreign policy behaviors with either cooperation or conflict. This can be interpreted two different ways. First, the measurement of foreign policy behavior covers not only top decision makers but also other major actors within a given country, who are not controlled by the top decision makers. Second, decision makers

do not pay much attention to support rates when they engage in routine foreign policy decision making. Ad hoc actions, such as militarized intervention, are more extraordinary, so they demand that the decision maker pay special attention to his/her support rates. The foreign policies coded in the event data sets are routine events, not ad hoc events. Because of this, my data analysis does not provide a significant coefficient for the support rate variable.

Interestingly, there is no obvious difference between separated models and the “net-cooperation” model with the British and American cases in terms of general statistical outcomes. In the conflict model, economic variables are statistically insignificant except MPI, which shows that having bigger manufacturing industries leads to less conflict involvement. This is also confirmatory of my expectation related to state-in-society theory. Congressional or parliamentary elections are positively correlated with cooperation events and negatively correlated with conflict behavior, with statistical significance. This finding is consistent with PTS analysis of ten sample countries.

Concerning the relationship between conflict and cooperation, conflict leads to more cooperation, and cooperation results in more conflict. Obviously, this finding does not support the concept of “net-cooperation.” Some might argue that separated models get better results in terms of a measure of goodness of model fit, R square, owing to more independent variables such

as the lagged dependent variable and the other type of foreign policy behavior. However, the difference of R square outweighs the number of variables.<sup>8</sup>

The “net-cooperation” model of the American and British cases seems as good as the separated model. While separated models of conflict and cooperation achieve significance only on congressional elections in the cooperation model and on congressional election and manufacturing product in the conflict model (except for the lagged endogenous variable and the other type of foreign policy behavior as independent variables), the “net-cooperation” model achieves significance on support rates and manufacturing product index variables.

More importantly, the support rates variable in the “net-cooperation” model yield a statistically significant and negative coefficient. This can be interpreted as meaning that decision makers in the United States and the United Kingdom more likely engaging in “net-cooperation” when their support rates are low, which is sustaining evidence for the argument that countries employ the diversionary use of cooperative events. This is consistent with the hypothesis, which is driven by the diversionary theory and which I claimed was a missing part of the diversionary theory. A decision maker utilizes “net-cooperation” events rather than conflict events in order to divert public attention and raise his support rates.

In the “net-cooperation” model, MPI is positively correlated with “net-cooperation” activities. On the other hand, the conflict model shows that the higher manufacturing product levels are correlated with less conflict events.

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<sup>8</sup> In terms of the goodness of model fit, while cooperation model and conflict model yield  $R^2$  of .87 and .72, respectively, net-cooperation model only achieves .15.

This finding is supportive of “state in society” theory, in which the power distribution among social classes are thought to affect the foreign, as well as the domestic policy outcomes. Manufacturing workers and business elites are internationalists relative to those in the primary industry (Gourevitch 1978; Haggard 1990; Geoffrey and Lange 1996). If it is assumed that there are two types of goods, trade-oriented and non-trade oriented, manufacturing and industrial goods are more likely to be trade-oriented goods. An industry producing trade-oriented goods can take advantage of more cooperation and less conflict. Therefore, the strength of manufacturing is significantly and negatively correlated with the level of conflict in foreign policies. The degree of labor force organization could be an important factor because organized workers’ groups can better impact the policy outcome in a given country (Geoffrey and Lange 1996, 57-58).

#### Individual Case Analyses

Generally speaking, major countries reveal better statistical outcomes than do minor countries from individual case analysis, a finding that is also confirmed by Pooled Cross-Sectional Time Series analysis. Among the individual case analyses, the minor powers are Australia and Canada, whose R squares range from .37 to .01 even when including lagged endogenous variables and the other type of foreign policy behaviors as independent variables. The coefficients for these two minor countries are statistically insignificant.

The interesting point in the individual case analyses is the impact of the sectoral distribution of political power. From the outset I expected there might

be different types of political coalitions in different countries as “state- in- society” theory argues (Katzenstein 1992; Rueschemeyer Stephen and Stephen 1992). If the strength of the organized labor force is a determining factor, I expected that the manufacturing product of the United Kingdom and Germany would reveal statistically significant and positive correlation coefficients in the cooperation model and/or negative coefficients in the conflict model, because labor groups are better organized in Germany and the United Kingdom than in any other sample countries. However, the results are just the opposite of my expectation. The United States and the Japanese cases have significant coefficients for the manufacturing product variable in an expected direction. Based on this, I summarize that the manufacturing product reflects not only the strength of the labor force but also that of the business elite. The policy is more likely to be influenced by the strength of the business elite than labor in these cases. In the United States, there are weak labor organization and strong business elite relative to other sample countries. In terms of labor-business relationships, the Japanese example is different from the American case, because Japanese labors can benefit from relatively stable job security. However, the political strength of business outweighs that of the labor force in Japan.

This variance among sample cases is also attributable to the behavior within a country of different actors within a country such as decision makers, bureaucracies, and business elite. According to Mansbach and Vasquez (1981), the overall degree of conflict and cooperation dramatically changed once the aggregate scores were broken down along different domestic actors

Table 4-5 Time Series Analyses for Individual Sample Cases

Case	The United States						The United Kingdom					
Data	WEIS			COPDAB			WEIS			COPDAB		
I. V. \ D. V.	COOP	CONF	NETCOOP	COOP	CONF	NETCOOP	COOP	CONF	NETCOOP	COOP	CONF	NETCOOP
Conflict	.27†† (.04)	-	-	.18† (.06)	-	-	.21† (.07)	-	-	.49 (.24)	-	-
Cooperation	-	2.03†† (.25)	-	-	2.99† (.12)	-	-	.83** (.37)	-	-	.09 (.05)	-
Conflict <sub>t-1</sub>	-	-.2* (.11)	-	-	.71†† (.07)	-	-	.04 (.19)	-	-	.16 (.07)	-
Coop. <sub>t-1</sub>	.35† (.1)	-	-	.19* (.1)	-	-	.31** (.13)	-	-	.21 (.11)	-	-
Net-coop. <sub>t-1</sub>	-	-	-.15 (.15)	-	-	.68†† (.07)	-	-	.09 (.19)	-	-	.01 (.11)
Presidential Election	-145.6* (105.6)	259.1 (267.3)	-41.9 (313.7)	-46.5* (24.6)	12.15 (28.75)	-34.6 (31.2)	-	-	-	-	-	-
Congressional Election	145.6* (98.3)	-222.4 (249.1)	20.2 (293.1)	13.7 (20.3)	15.44 (23.2)	4.11 (25.6)	5.6 (26.2)	-72.3 (56.4)	64.1 (58.4)	-4.9 (8.82)	3.53 (3.94)	-7.82 (9.0)
Consumer Price Index <sub>d</sub>	381.8** (171.5)	-	1039.5** (512.1)	25.7 (74.3)	-40.9 (84.8)	30.1 (94.1)	-17.1 (13.05)	-26.6 (30.6)	23.9 (26.9)	28.4 (23.3)	-20.4 (10.3)	45.3* (23.8)
Manuf. Production <sub>d</sub>	24.5 (50.4)	(432.5)	271.9* (144.1)	7.55 (8.61)	14.4* (9.7)	-8.1 (10.5)	-19.5* (13.02)	-32.6 (28.2)	24.1 (25.7)	.79 (2.73)	-2.43 (1.1)	1.22 (2.75)
GDP <sub>d</sub>	-448.1* (290.5)	(122.1)	-1110.7* (820.8)	-28.5 (69.4)	38.2 (79.1)	-18.5 (87.4)	.07 (19.4)	45.7 (42.4)	-46.7 (40.2)	-29.3 (24.3)	12.2 (10.6)	-46.3* (25.3)
Supporting rate	-1.167 (4.6)	(697.1)	-13.0 (13.9)	-1.12 (.97)	1.21 (1.03)	-.6 (1.11)	.96 (.97)	.35 (2.04)	-.001 (1.86)	-	-	-
Constant	289.6 (263.9)	(11.7)	204.1 (740.7)	229.1† (74.06)	-115.7 (80.2)	69.9 (75.1)	33.4 (33.3)	42.07 (70.9)	-31.3 (66.7)	64.6 (14.3)	18.8 (5.72)	69.8†† (10.8)
R <sup>2</sup>	.765	.744	.304	.24	.63	.53	.617	.478	.394	.14	.24	.05
Adjust R <sup>2</sup>	.706	.68	.156	.16	.60	.49	.53	.361	.168	.08	.19	-.002

Note: t-1 refers to lagged, and d refers to differenced

††p &lt; 0.001      †p &lt; 0.01

\*\*p &lt; 0.05      \*p &lt; 0.1

Case	Australia						Canada					
Data	WEIS			COPDAB			WEIS			COPDAB		
I. V. \ D. V.	COOP	CONF	NETCOOP	COOP	CONF	NETCOOP	COOP	CONF	NETCOOP	COOP	CONF	NETCOOP
Conflict	.452† (.133)	-	-	.863 (.68)	-	-	.465† (.173)	-	-	.264 (.584)	-	-
Cooperation	-	.593†† (.162)	-	-	.023 (.019)	-	-	.436† (.151)	-	-	.006 (.021)	-
Conflict <sub>t-1</sub>	-	.06 (.155)	-	-	.3† (.111)	-	-	-.077 (.182)	-	-	-.069 (.114)	-
Coop. <sub>t-1</sub>	-.177 (.146)	-	-	.13 (.12)	-	-	.234 (.153)	-	-	-.149 (.124)	-	-
Net-coop. <sub>t-1</sub>	-	-	.119 (.174)	-	-	.007 (.12)	-	-	-.188 (.173)	-	-	-.106 (.125)
Congressional	-6.8*	2.58	-4.91	4.89	1.55*	4.63	-3.59	-3.78	-5.55	-16.6†	-16.6	16.64††
Election	(3.97)	(4.65)	(4.61)	(5.34)	(.88)	(5.1)	(10.68)	(9.48)	(11.73)	(4.67)	(4.67)	(4.72)
Consumer	.329	.984	-1.44	1.45	-.528	1.35	.586	4.26	2.77	-1.29	6.45*	-6.75
Price Index <sub>d</sub>	(3.27)	(3.55)	(3.82)	(11.63)	(1.93)	(11.6)	(10.49)	(9.24)	(11.44)	(13.6)	(2.52)	(13.27)
Manuf.	.58	-1.24	1.22	-.185	.331	-.237	-3.63	-2.27	-.965	2.79	.316	2.58
Production <sub>d</sub>	(1.4)	(1.55)	(1.67)	(2.26)	(.377)	(2.22)	(4.08)	(3.98)	(4.54)	(2.88)	(.551)	(2.89)
GDP <sub>d</sub>	-.235 (.844)	-.783 (.948)	.463 (.993)	-15.97 (41.45)	5.47 (6.85)	-16.49 (40.9)	.919 (11.87)	-14.44 (10.57)	6.49 (12.49)	28.38* (10.99)	-1.66 (2.17)	29.04† (11.02)
Constant	11.43† (4.49)	6.64 (5.57)	-.031 (3.72)	18.77†† (4.87)	.879 (.822)	18.66†† (4.67)	11.69 (11.15)	22.78 (10.0)**	-.381 (9.63)	26.05†† (5.08)	2.8† (.97)	22.74†† (4.68)
R <sup>2</sup>	.37	.34	.05	.04	.23	.01	.35	.31	.05	.30	.13	.27
Adjust R <sup>2</sup>	.27	.22	-.08	-.03	.16	-.05	.34	.19	-.07	.25	.07	.22

Note: t-1 refers to lagged, and d refers to differenced

††p < 0.001    †p < 0.01

\*\*p < 0.05    \*p < 0.1

Case	Germany						Japan					
Data	WEIS			COPDAB			WEIS			COPDAB		
I. V. \ D. V.	COOP	CONF	NETCOOP	COOP	CONF	NETCOOP	COOP	CONF	NETCOOP	COOP	CONF	NETCOOP
Conflict	.896†† (.155)	-	-	.02 (.528)	-	-	1.07†† (.206)	-	-	1.56†† (.37)	-	-
Cooperation	-	.537†† (.094)	-	-	-	-	-	.387†† (.076)	-	-	.125†† (.027)	-
Conflict <sub>t-1</sub>	-	.154* (.094)	-	-	.00009 (.027)	-	-	-.066 (.128)	-	-	.029 (.106)	-
Coop. <sub>t-1</sub>	-.091 (.088)	-	-	.21* (.127)	(.12)	-	.338† (.128)	-	-	.133 (.104)	-	-
Net-coop. <sub>t-1</sub>	-	-	-.085 (.147)	-	-	.156 (.129)	-	-	.462† (.187)	-	-	.145 (.109)
Congressional Election	-10.48 (11.65)	9.47 (8.88)	-11.73 (11.75)	-.686 (10.24)	3.82* (2.31)	-4.49 (10.25)	.742 (18.76)	-.484 (11.54)	.431 (18.94)	-.151 (4.26)	.038 (1.19)	-1.24 (4.3)
Consumer	4.28 (8.65)	-	6.17 (8.13)	22.51 (15.31)	(2.31)	20.36 (15.59)	1.52 (12.56)	-6.14 (7.9)	4.07 (12.44)	7.92** (3.29)	-1.01 (.88)	8.15** (3.31)
Price Index <sub>d</sub>	-.083 (3.06)	(6.28)	.731 (3.02)	2.59 (3.87)	(3.53)	1.96 (3.91)	-5.9 (4.9)	6.25** (3.01)	-3.67 (4.76)	4.72** (1.95)	-.725 (.555)	4.60** (1.98)
Production <sub>d</sub>	37.37†† (9.17)	(2.37)	32.74†† (7.85)	-7.03 (11.83)	(.87)	-5.81 (12.1)	-15.31 (18.86)	14.98 (11.12)	-19.1 (19.43)	.581* (.41)	-.009 (.117)	.584 (.412)
Constant	-8.85 (9.61)	(8.33)	-14.71* (8.39)	64.82 (13.41)	(2.64)	61.26 (11.8)††	13.18 (13.15)	5.61 (8.04)	21.67** (11.17)	18.22†† (4.88)	2.74** (1.35)	22.72 (4.37)††
R <sup>2</sup>	.77	.72	.35	.07	.10	.05	.55	.51	.18	.35	.22	.19
Adjust R <sup>2</sup>	.74	.67	.26	0.0019	.02	-.01	.47	.42	.06	.30	.16	.14

Note: t-1 refers to lagged, and d refers to differenced

††p < 0.001    †p < 0.01

\*\*p < 0.05    \*p < 0.1

and issues. In order to understand this in more specific detail, I had to break down different types of issues and analyze the sectoral responses to different foreign policies, instead of analyzing responses to general impact on foreign policy because a given source country adopts dual policies toward a same target country along different policy issue as the French example of Iraq war shows: conflict on war participation and cooperation on trade with the United States.

These findings combined buttress the diversionary theory as argued by Lian and Oneal (1993). If diversion of public attention from domestic policy failure is a primary goal for a decision maker, who is rational in terms of cost-benefit calculation, conflict, even in minor activities such as verbal threats, is a more expensive policy option than cooperation. As long as the mass media covers major cooperative events and diverts public attention from domestic policy failure, and a democratic leader is a risk-avoider rather than risk-taker, cooperative events are more efficient policy choices.

The next issue is the economic impact in individual cases. As Table 5 shows, economic factors are statistically insignificant across all cases except the United States, once other relevant factors are controlled. Consumer Price Index (CPI) in the cooperation model with WEIS yields a positive coefficient that is statistical significant, and GDP achieves a negative coefficient with statistical significance in the same model. At the same time, CPI and GDP in the conflict model get exactly opposite statistical outcomes with the same level of statistical significance. These outcomes are consistent with diversionary use of cooperation policy: when the economy in the U. S. goes

bad, the decision makers in the U. S. are more likely to rely on cooperation policy and less likely to rely on conflict policy. As the majority of empirical analyses for diversionary use of force theory analyze the single case of the United States (Stohl 1975; Page and Shapiro 1983; Ostrom and Marra 1986; Meernik 1994; Meernik and Waterman 1996), the diversionary use of foreign policy seems to be a phenomenon of the superpower. However, the outcomes of the U. S. case are supportive of my hypothesis: diversionary use of cooperation policy by a rational actor. Since conflict policy is a more expensive policy choice than cooperation for the same political goal, the decision makers in the United States adopt more cooperation policy and less conflict policy during economic recession.

The last issue is the impact of electoral cycles on foreign policy in democratic regimes. While congressional or parliamentary elections affect foreign policy behavior, presidential elections do not. Congressional elections are associated with more cooperative foreign policy events. On the other hand, presidential elections are less likely to result in cooperative events and more likely to involve conflict events, although both are statistically insignificant. This cross-effect of the two different types of elections in American and British politics is attributable to the nature of the two different institutions. As the Commander-in-Chief, the President's resoluteness toward external threats makes his incumbent candidacy – or if the president is in his second term, the succeeding candidacy from his own party – stronger. This ultimately improves the possibility of an electoral victory in a presidential election.

On the other hand, Congress as an institution is supposed to check the presidential initiative in foreign conflict intervention. But as far as constitutional authorization goes, presidents have acted unilaterally in foreign affairs matters that Congress might undoubtedly have regulated in terms of conflict involvement throughout American history (Henkin 1996, 86).

Due to these characteristics of government institutions, the two different elections show opposite test results. This explanation is also supported by the other test shown in Table 5 for the U.S. case analyses. While congressional elections are negatively related to conflict events, presidential elections are positively related to the same type of events.

The general economic condition with GDP is statistically significant with a negative coefficient, which means economic recession leads to more cooperative events. It would require more research to develop a more sophisticated theory of foreign policy behavior with respect to this domestic political dynamic.

Finally, presidential approval rates are positively correlated with cooperative events, which is the opposite of my expectation that poor policy performance would lead to more cooperative events in order to divert public attention from presidential policy failure. Instead, presidents employ cooperative policies with adequate policy resources because presidents need general public support for policy initiation or mobilization. Garrett and Lange (1996) argue that the internationalization process through interstate cooperation inevitably results in domestic policy change, which ultimately redistributes socioeconomic values among the various classes and industrial

sectors. The changes in socioeconomic redistribution policy inevitably reorganize (decide) winner and loser groups if the policy change is originated within interstate cooperation. Then a decision-maker has to run the risk of decreasing political support from the possible losers groups who are suffering from interstate cooperation. In order to initiate interstate cooperation, a decision maker has to anticipate any possible loss of political resources in domestic politics. Thus, a decision maker is more likely to initiate cooperative policies when he or she enjoys higher approval rates as a critical political resource.

Although the outcomes of PTS and individual case analyses are partially confirmatory of my hypotheses concerning domestic political and economic dynamics, I believe these outcomes provide a starting point for future in-depth investigation of the relationship between domestic factors and foreign policy behavior.

## CHAPTER VI

### CONCLUSION

This study has tried to answer two major questions concerning cooperation. First, what is the nature of the embedded relationship between cooperative and conflictual foreign policy activities? Are they mutually exclusive, reinforcing, or irrelevant to one another? And second, which domestic factors, if any, are impacting foreign policy behavior? Although Tit-For-Tat at the dyadic level of analysis could be the single most important strategy, domestic conditions are also important determinants of cooperation policies, as various other international relations theories have specified. The theory pertaining to the diversionary use of force provides the theoretical basis for my argument, but further contributions to my theoretical paradigm are made by two-level game theory and foreign policy decision-making theory.

These two research questions could be critical for the study of interstate cooperation. Although the conflict-cooperation relationship issue has been analyzed empirically, there had been no clear answers as to the nature of this relationship. In order to approach the study of cooperation and the development of theory on this phenomenon from a stronger base, it was helpful to elucidate the concept of cooperation and conflict with respect to the concept of “peace,” which has been developed by peace studies scholars. I found that to date the analysis of peace studies has poorly been integrated with the study of cooperation and conflict by empirically oriented research. Therefore, in this study I clarified the relationship among the most important concepts in international relations studies of conflict, peace, and cooperation,

and proceeded to conduct empirical analyses based on my conceptualization of those terms.

In this dissertation, I examined domestic factors' influence on cooperative and conflictual foreign policy outcomes. TFT theory, which was the predominant way of looking at these phenomena prior to this study, has considered the current behavior of a country's counterpart as the most important external determinant of foreign policy at the dyadic level and a countries' own past levels of conflict and/or cooperation as the most important domestic factor. However, here I found that this sort of memory term is an insufficient to reflect the complicated domestic dynamics affecting foreign policy outcomes. I found that the addition of various indicators for domestic political and economic conditions was a necessary step that served to extend the understanding of cooperation and conflict behavior in a democratic regime. My results generally supported my assertion that such domestic factors do have important impacts on the use of cooperation, and conflict in countries' foreign policy behavior.

### The Nature of Cooperation and Conflict

The relationship of cooperation and conflict must be a methodological matter since I purport to find empirical justification of the existing treatment of event count data. Therefore, I would like to discuss the methodological development of my dissertation. Concerning the relationship between cooperation and conflict, previous empirical analyses have employed diverse methodologies such as correlation, factor analysis, and so on (Tanter 1966; Kegley 1973). My analysis uses Granger causality of time series. As far as I

know, the Granger causality test has never been employed before and is a new way to test the nature of cooperation and conflict.

Related to the level of analysis, I measured the dependent variables (cooperation and conflict) at an aggregated level, accounting for each actor's foreign policy activities toward all other national actors in the international system. This is different from previous studies that have employed measures of cooperation and conflict at a dyadic level of analysis. The aggregated measurements better capture those concepts because they can consider all possible activities along time in a given country. If countries do indeed use foreign policies in reaction to domestic pressures, in all probability governments can pick and choose the targets of their activities. Focusing on the relationship with a single actor may lead one to miss the impacts of domestic factors. The aggregated measurements are thus less likely to omit possible policy enacted in reaction to domestic concerns.

To state the results of my Granger causality test in the most general terms, they demonstrated that cooperation and conflict exist in a mutually reinforcing mode. In other words, increasing one type of policy leads to increasing another type of policy: cooperation leads to conflict, and conflict lead to cooperation. Thus, it is consistent with the thought of Keohane (1984, 53-54), who argues as follows:

Cooperation does not imply an absence of conflict. On the contrary, it is typically mixed with conflict and reflects partially successful efforts to overcome conflict, real or potential. Cooperation takes place only in

situations in which actors perceive that their policies are actually or potentially in conflict not where there is harmony. Cooperation should not be viewed as the absence of conflict, but rather as a reaction to conflict or potential conflict. Without the specter of conflict, there is no need to cooperate.

Keohane (1984) emphasized the relationship in one direction -- from conflict to cooperation. I would add, however, the reverse direction as well -- that cooperation efforts from each partner will generate conflict or at least the possibility of conflict. Even if partners in cooperation agree on coordination or collaboration in order to either prevent a worst outcome or create a better payoff for both sides, these cooperation processes still involve conflict events along with cooperation activities. Therefore, I conclude that cooperation and conflict are in a spiral or in a mutually reinforcing mode, which can often result in conflict or cooperation "spirals." Thus, the separation of cooperation and conflict in empirical analysis is more theoretically justifiable than the merging them into the concept of "net-cooperation," as has been done by the vast majority of previous analysts (Goldstein 1991; Goertz and Regan 1997; Goldstein 1995; Goldstein and Freeman 1991; Goldstein and Pevehouse 1997).

With the finding of non-mutual exclusiveness between conflict and cooperation in mind, I also suggest a future research question: why do countries switch from cooperation to conflict at the dyadic level, and vice versa? The effectiveness of TFT demonstrated by Axelrod (1980) was an

important contribution in the study of interstate cooperation, since it illustrates how cooperation is possible in an anarchical system. However, Axelrod's argument is based on the assumption of a static payoff system: once the payoff system is set, it would last at least for a while. However, the payoff system might change at any time even in reaction to only minor developments in international relations. Due to the variability of the payoff system in real politics, future study needs to focus on action-reaction along different issue domains at the dyadic level because this is where the payoff system is sensitive.

#### Domestic Influences on Foreign Policy Outcomes

The second issue is the impact of domestic factors on foreign policy in general, and cooperation in particular. Explicating these relationships, I think, is a major contribution of my dissertation. Despite some variance in the outcomes of my statistical tests, I am justified in arguing that each of these foreign policy behaviors is a function of a country's other type of foreign policy behavior, its own past value, and domestic factors.

As I pointed out before, most of previous empirical analyses have emphasized reciprocal action-reaction factors. By doing this, they have disregarded domestic factors. My analysis, on the other hand, employs aggregated cooperation and conflict as dependent variables and includes domestic factors as independent variables. To analyze the domestic factors, I used Pooled Cross-Section Time Series (PTS) analysis with 10 democratic countries as my samples from World Event Interaction Survey (WEIS) and Conflict and Peace Data Bank (COPDAB). For the purpose of generalization,

PTS analysis with a large N is generally better than a multiple dyadic analysis with a limited number of international actors. In order to detect foreign policy responsiveness, appropriate candidates for analysis are democratic regimes because autocratic and despotic leaders are less responsive to policy demands made by the public. Therefore, the discussion about the relationship between domestic conditions and foreign policy outcome is best applied to democratic regimes, which are more sensitive to public opinion. Therefore I included only a set of democratic countries in my analyses.

While economic conditions are statistically insignificant, political variables and national capability status are statistically significant. With the exception of the endogenous variable, capability status is the single most important independent variable. This proves that major powers are more likely to rely on foreign policy behaviors to maximize national interests. This result indicates that foreign policy decisions are a function of willingness and opportunity (Most and Starr 1989). When a political leader in a minor country faces domestic and international problems, it is less a viable option for her to rely on either cooperation or conflict policies because her country has relatively little opportunity due to lack of resources. Thus the leader has a lack of willingness as well.

Among political variables, the public support of the top decision maker is not statistically significant. However, the electoral cycles of democratic sample countries are statistically significant to foreign policy outcomes. When I disaggregate sample countries, in order to do country-by-country analyses, the case of the United States yields the most significant statistical results.

Most of the political and economic conditions in the United States are statistically significant in a way that supports diversionary theory: when the economy goes bad and the politically critical moment approaches, the country is more likely to rely on cooperative policies. However, the specific influence of domestic factors varies along the sample countries. I think that the relationship between domestic conditions and foreign policy is influenced by embedded specificity within any given country.

Despite some inconsistent and insignificant statistical results, most of my findings are theoretically supplementary to diversionary theory. I would argue that the diversionary use of conflict theory might leave a loophole in terms of theoretical explanation. If the rational actor assumption holds – maximization of utility with minimization of cost – decision makers in democratic regimes would prefer cooperation to conflict for the purpose of creating a diversion. Previous empirical analyses of diversionary theory have not controlled for the possibility that countries use cooperative events for diversionary purposes; therefore, their statistical outcomes might be contradictory with each other. Instead, my empirical analysis for the United States case shows that the decision makers use more cooperative events during hard times: economic recession and electoral cycles.

#### Suggestions for Future Studies

My dissertation is not the final word on the study of cooperation and the effects of domestic factors on cooperative foreign policies. Rather, it is a starting point for a different approach to the study of cooperation and conflict. Since I tried to explain the nature of cooperation and conflict relations on an

aggregated level of analysis, and I successfully observed the relationships between foreign policy behavior and domestic factors, I would like to make some policy suggestions as well as recommend several points for further study.

First, the aggregate level of analysis is as important as a supplement to the dyadic level of analysis because a source country can choose various possible target countries in foreign policy behavior. Although the dyadic level of analysis might take into account accurate source-target connections, it cannot reflect the multiplicity of the action-reaction mechanism that is occurring at any given time. On the contrary, even if the aggregate level of analysis took into account all of the multiple combinations of the action-reaction mechanism, it might still omit accurate source-target connections. There must be a tradeoff between accurate source-target connections and the combinations of the multiple action-reaction mechanism. However, it is not simply an issue of two major components of cooperation and conflict measurement along different level of analyses. Rather, it is a matter of theoretical appropriateness to test my hypotheses: I have tried cooperation with an aggregate level of analysis in order to test the theoretical connection between foreign policy behavior and domestic factors. I found, and I argue, that the aggregate level of analysis has advantage of being able to consider domestic factors, which is a contribution of my analysis. If domestic factors are as important as systemic factors, I would suggest that more empirical studies with an aggregate level of analysis are desirable for further study of cooperation and conflict behavior.

Second, cooperation and conflict are not mutually exclusive; rather, they are independent policy domains for decision makers. Therefore, I would boldly contend that the concept of “net-cooperation” is an inappropriate treatment of cooperation and conflict data. My statistical analysis also clarifies the conceptual relationship among cooperation, conflict, and peace. While “peace” is undoubtedly the concept opposite to conflict, cooperation and conflict do not necessarily contrast conceptually. At the same time, peace does not necessarily mean cooperation. According to Keohane (1984), peace means harmony, in which all participants do not need any relationships. Based on this conceptual clarification, I would argue that future empirical analyses need to separate cooperation from conflict.

In terms of policy suggestions, foreign policy choice is a matter of domestic conditions in conjunctions with the international action-reaction mechanism. An abrupt change of foreign policy in a given country is better explained by domestic conditions than by the action-reaction or TFT arguments only. As my criticism of Goldstein’s argument of exclusion of relevant independent variables suggests, the inclusion of relevant independent variables, supported by theories, usually provides better statistical outcomes in the form of unbiased and efficient coefficient estimates. Although a mechanical comparison of R square is inappropriate, as a standard of goodness of model fit, my model with domestic factors achieves a better R square than those with a TFT model. In terms of theory, my hypotheses are supported by two-level game theory, in which Putnam (1988) argues that policy decision-making in the domestic level game is a function of

competing domestic socio-political groups maximizing their interest. In other words, it is impossible to consider foreign policy decision-making without referring to various dimensions of domestic conditions such as socio-political and economic dynamics.

The importance of domestic factors also means that a political leader can freely switch to cooperation over conflict at any time to maximize his or her national interest. This is the reason we can easily observe conflict action-reaction between traditionally friendly allies and cooperation action-reaction between traditionally rivalry countries. This finding could be a partial explanation of the controversial outcome from previous empirical analyses related to diversionary theory, which deals with the relationship between conflict involvement and domestic hardships. As long as a cooperative foreign policy event can divert public attention, a decision maker is more likely to rely on this option, a cooperative events, which is less expensive than conflictual event. In other words, a decision maker tries to utilize all policy tools for his political status, and foreign policy decision-making is a useful one of these tools.

Third, there is a tremendous variance of the way in which domestic politics impact foreign policy behavior in sample countries. Although I admit nomothetic generalization is normally the first priority in scientific inquiries, and aim toward such generalizations, in this dissertation, I also emphasize the importance of idiosyncratic specificity, and investigate the possibility of domain specific relationship in particular countries. Some interesting results occurred in these analyses. For example, I found that the size of the

manufacturing industries in the U. S. and the U. K. has an opposite impact on cooperation behavior. I interpret this effect as being attributable to the differences in the relative strength of business and labor groups in these two countries. Due to complicated domestic political structures, the same attribute of domestic politics and economics sometimes exhibits an opposite effect on foreign policy behavior. As a starting point for explicit tests of this argument, empirical research needs to select two major countries at dyadic level and analyze specific characteristics of each in order to further examine this tendency.

Fourth, more careful attention should be given to the data generation process in future studies of conflict and cooperation in foreign policies. The future study of cooperation necessitates more, and better data sources for generating event count data. Although my analysis utilized the existing data sets (COPDAB and WEIS), I recognize that previous event count data is subject to the bias of the perspectives of the news source, which is in one specific country of residence. I conclude that multiple news sources do not exactly reflect the diplomatic importance of any given country. For example, The *New York Times* or *Reuters* news agency cannot capture the details of foreign policy behavior for small countries because even these major news sources cannot cover all countries around world.

As long as media coverage is prone to the bias of subjective perspectives (Lian and Oneal 1993), a researcher needs to analyze the diplomatic emphasis from a given sample country instead of that which is reported by The *New York Times* or *Reuters*. As a first step in this direction, I

suggest that event count data should be built with local news sources as Gerner, Schrodtt, and Francisco (1994) did with two specialized regional sources: the foreign policy chronologies in the *Journal of Palestine Studies* and the German language biweekly publication *Informationen*. While Gerner, Schrodtt, and Francisco (1994) employed the *Reuters* news report as a major source and referenced two regional news sources, my event count data will utilize major Korean news sources. Owing to the reliability of the machine coding scheme, event count data with multiple regional sources will enrich our understanding of international political interaction (Gerner, Schrodtt, and Francisco 1994). Currently, Korean news sources are available in a computerized text format, as they have been since early 1980s. Similar coding rules from WEIS or from the Kansas Event Data System (KEDS) will allow me to build an event count data on behalf of Korean perspectives. Once I finish building a new data set based on Korean news sources, it might also allow me to check the 'construct validity' of the existing event count data sets. I compare the general trend of existing major data set (WEIS), cooperation measurement of the same sample countries, to the event count data with Korean sources. Then, I regress one on the other data set with the same sample countries during the same temporal domain and compare the correlation coefficients. As they approach 1.0, the existing data sets can be said to have 'construct validity' (Vincent 1983; Gerner, Schrodtt, and Francisco 1994; Reuveny and Kang 1996).

Fifth, the COPDAB and WEIS data sets have contributed to the cooperation study by providing a standardized coding scheme. Unfortunately,

although they include information about source, target, and type of behavior, they miss the importance of issue domains. As Mansbach and Vasquez (1981) suggest, the issue domain in cooperation and conflict is vital because a country can have behavioral patterns that differ substantially depending on the issue domains. As I presented in a few examples, the same source country can apply cooperation and conflict policies along different issues to the same target country. During the second Gulf War, France adopted a conflictual behavior toward the U. S. in terms of its military relationship, but cooperative behavior toward the same target country on the issue of trade. Therefore, disregarding the specificity of issue domains presents an ambiguous picture of a foreign policy behavior for a given source country. Based on this reasoning, I will differentiate issue domains of cooperation and conflict behavior in the data generation stage for my further empirical analyses. Doing so may serve to bring more detail and a more accurate explanation for foreign policy behavior, not only for the dyadic level of analysis but also for the aggregated level of analysis.

Finally, previous empirical analyses concerning cooperation and conflict behavior assumed that the payoff system is static instead of dynamic. According to the scientific standards, assumptions should not be subject to empirical tests. However, a science needs to release assumptions that deviate greatly from the reality. In terms of the Lakatosian definition of science, a model with fewer assumption, better explanations, and precise predictions will satisfy the scientific standard. The accurate prediction of a formal theory relies on an appropriate specification of the payoff system for each participant.

In every case where a formal theory has failed to specify the payoff system, it has also failed to predict the decision outcome. This is logically consistent because as soon as the payoff system changes, the prediction of decision outcomes will result in a totally different selection node in the extended form of game. Applying backward deduction, if traditional allies change their behavior from cooperation to conflict, at least verbally, there must be an important change of the payoff system in at least one given issue. Therefore, I would suggest that the change of the payoff system should be subject to empirical research. It is impossible to track down all changes of all payoff systems across time, but the selection of several critical moments of policy change can allow us to understand when and how the payoff system changes. In addition, I assume that domestic political dynamics are important factors affecting the payoff system; thus, they ultimately influence policy outcomes. Therefore, I argue that considering domestic factors is critical to understanding the dynamics of interstate cooperation.

APPENDIX A  
COPDAB SCALE OF FOREIGN POLICY BEHAVIOR

COPDAB SCALE  
Scale Code Description

- 1 VOLUNTARY UNIFICATION INTO ONE NATION: Merging one nation with legally binding government.
- 2 MAJOR STRATEGIC ALLIANCE: Fighting a war jointly; establishing joint military command or alliance; conduction joint military maneuvers; establishing an economic common market; joining or organizing international alliances.
- 3 MILITARY, ECONOMIC OR STRATEGIC SUPPORT: Selling nuclear power plants or materials or other advanced strategic technology; supplying military technical or advisory assistance; intervening with military support at request of government; training military personnel; initiating or concluding agreements on disarmament or military matters.
- 4 NON-MILITARY ECONOMIC, TECHNOLOGICAL OR INDUSTRIAL EXCHANGE: Making loans or grants for economic development; provision of favorable trade concessions.' sale of major non-strategic technology; establishing common communication or transportation systems; provision of non-military advice or assistance.
- 5 CULTURAL AND SCIENTIFIC AGREEMENT OR EXCHANGE: Extension of recognition to government; establishing diplomatic relations; cultural or academic exchanges; offering economic or military aid.
- 6 OFFICIAL VERBAL SUPPORT OF GOALS, VALUES AND REGIME: Official support of policy elevation of level of diplomatic mission; affirmations of friendship or support; restoring broken diplomatic or other relations; other favorable verbal gestures.
- 7 MILD VERBAL SUPPORT OR EXCHANGES OF MINOR OFFICIALS: Meetings of high officials, discussions oil problems of mutual interest; issuance of joint communiques; visits by lower officials; appointment of ambassadors; statement or explanation of policy; request for policy support.
- 8 NEUTRAL OR NON-SIGNIFICANTS ACTS: Rhetorical policy statements; indifference or no comment statements, compensation for nationalized enterprises or private property.
- 9 MILD VERBAL HOSTILITY/DISCORD: Low key objections to policy or behavior; expressing discontent through a third party, objection to explanation of policy; request for change in policy; denial of accusations.
- 10 STRONG VERBAL HOSTILITY: Strong condemnation of actions of policies threats of retaliation for acts; denunciation of leaders, system or ideology; strong propaganda attacks; postponement of head of state visits or blocking or veto action in withdrawal from meetings or summits; international bodies.
- 11 HOSTILE DIPLOMATIC-ECONOMIC ACTIONS. Troops mobilizations; granting sanctuary to opposition; hindrance of movement by closing borders; refusing visas; recall or expulsion of ambassadors; imposition of embargoes; economic sanctions or other activity designed to impose economic loss; termination of major agreements; expulsion or arrest of nationals or press organization of demonstrations against target.

12 POLITICAL-MILITARY HOSTILE ACTIONS: Inciting of riots and/or rebellions by providing training; financial support and sanctuary to terrorists or guerilla activities on a limited basis; termination of diplomatic relations; nationalizing companies without compensation; attacking diplomats or embassies; kidnapping or torturing foreign citizens or prisoners of war.

13 SMALL SCALE MILITARY ACTS: Limited air, sea, or border skirmishes; border police acts; annexation of occupied territory; Imposition of blockades; assassination of leaders of target country; major material support of subversive activities.

14 LIMITED WAR ACTS: Intermittent shelling or clashes; sporadic bombing of military and/or industrial areas; small scale interception or shelling of ships; mining of territorial waters.

15 FULL SCALE WAR: Full scale air, naval, or land battles, including the use of nuclear weapons or chemical and biological warfare; major bombing of military and civilian targets; occupation or invasion of territory.

APPENDIX B  
WEIS CATEGORIES OF FOREIGN POLICY BEHAVIOR

## WEIS SCALE OF FOREIGN POLICY BEHAVIOR

### 01 Yield

011: Surrender, yield or order, submit to arrest, etc. This category requires explicit statement of surrender, or yield to a command or an order, or of submission to arrest

012: Yield position, retreat; evacuate. This category involves actual physical movement. 013 Admit wrongdoing; retract statement

### 02 comment

021: Explicit decline to comment. This category is reserved for an expressed "decline to comment" statement by an official spokesperson. This category does not include a "failure to comment."

022: Comment on situation -- pessimistic. This category is used only when the actor explicitly expresses the feeling that the situation is adverse or foreboding

023: Comment on situation-neutral

024: Comment on situation-optimistic. This category is used only when the actor explicitly expresses the feeling that the situation is favorable

025: Explain policy or future position. This category is used when governments express their goals, hopes, policies, or future plans to others.

### 03 Consult

031: Meet with at neutral site, or send note. This category is used for meetings at an unspecified or neutral site, or between a resident ambassador and the host country. This category applies, in addition, when notes are sent between nations but their content is unknown.

032: Visit; to go.

033: Receive visit; host.

### 04 Approve

041: Praise, hall, applaud, and condole. This category includes the--- "politeness" events such as expressions of gratitude condolences, and ceremonial salutations.

042: Endorse other's policy or position; give verbal support.

### 05 Promise

051: Promise own policy support.

052: Promise material support. This category specifies men and/or resource aid forthcoming

053: Promise other future support action.

054: Assure; reassure. This category is used for expressions or reiterations of earlier pledges.

### 06 Grant

061: Express regret; apologize

062: Give state invitation.

063: Grant asylum. This category includes both the announcement of a policy and reported cases of granting of refuge to nationals of other countries.

064: Grant privilege, diplomatic recognition; DE FACTO relations, etc.

065: Suspend negative sanctions; truce.

066: Release and/or return persons or property.

#### 07 Reward

071: Extend economic aid (as gift and/or loan)

072: Extend military assistance. This category includes both men and material, in addition, joint military training exercises are coded in this category.

073: Give other assistance.

#### 08 Agree

081: Make substantive agreement.

082: Agree to future action or procedure; Agree to meet to negotiate. This category includes the acceptance of invitations from other states.

#### 09 Request

091: Ask for information.

092: Ask for policy assistance.

093: Ask for material assistance.

094: Request action; call for. This category includes bids from United Nations membership and requests for asylum.

095: Entreat; plead; appeal to; help me. This category applies to requests made from a distinctly suppliant position, the actor nation pleading for aid or support.

#### 10 Propose

101: Offer proposal.

102: Urge or suggest action or policy.

#### 11 Reject

111: Turn down proposal; reject protest, demand, threat, etc.

112: Refuse; oppose; refuse to allow.

#### 12 Accuse

121: Charge; criticize; blame; disapprove

122: Denounce; denigrate; abuse. This category often applies when derogatory adjectives embellish the accusation.

#### 13 Protest

131: Make complaint (not formal)

132: Make formal complaint or protest. Protests are assumed to be formal unless otherwise stated.

#### 14 Deny

141: Deny an accusation

142: Deny an attributed policy, action role or position.

#### 15 Demand

150: Issue order or command; insist; demand compliance; etc.

#### 16 Warn

160: Give Warning. Occasionally the words "demand" or "threaten" are used in news items which should be coded as warnings.

#### 17 Threaten

171: Treat without specific negative sanctions.

172: Treat with specific non-military negative sanctions.

173: Threat with force specified.

174: Ultimatum, threat with negative sanctions and time limit specified.

#### 18 Demonstrate

181: Non-military demonstration; to walk out on. This category applies to activities such as marching, picketing, stoning, etc., when they are performed by citizens of one nation against another nation. The category also includes occasions when representatives to international meetings walk out in protest.

182: Armed force mobilization. Exercise and/or display routine ceremonial displays such as weapons parades and "fly bys" are not included in this category.

#### 19 Reduce relations (as negative sanctions)

191: Cancel or postpone planned event.

192: Reduce routine international activity; recall officials; etc. Events coded in this category must be connected with some on-going international problem, thus the usual rotations of foreign service officers or normal changes in foreign aid are not regarded as "reduction of relations." Embargoes, bans, and smaller activities do fall within this category.

193: Reduce or halt aid.

194: Halt negotiations.

195: Break diplomatic relations.

#### 20 Expel

201: Order personnel out of country. This category includes the expulsion of foreign individuals and the declaration of individuals as PERSONA NON GRATA

202: Expel organization or group.

#### 21 Seize

211: Seize position or possessions. The category may also be used when a nation militarily takes or occupies another's territory.

212: Detain or arrest Person(s).

#### 22 Force

211: Non-injury obstructive act. When actual physical destruction is reported, demonstrations are coded in this category.

222: Non-military injury-destruction. This category also includes acts riot committed by organized military forces such as terrorist bombings.

223: Military engagement. Notice that this category may often be "double-coded" because when two nations battle, each is an actor and each is a target of force.

APPENDIX C  
GOLDSTEIN WEIGHTING SCHEME

COOPERATION		CONFLICT	
WEIS Categories	Goldstein Weighting Scheme	WEIS Categories	Goldstein Weighting Scheme
010	1.0	021	0.1
011	0.6	022	0.4
012	0.6	023	0.2
013	2.0	027	2.0
014	3.0	063	1.1
015	5.0	094	0.1
020	0.0	096	0.3
024	0.4	097	0.3
025	0.0	102	0.1
026	1.0	110	4.0
030	1.0	111	4.0
031	1.0	112	4.0
032	1.9	113	5.0
033	2.8	114	2.0
034	1.0	120	2.0
040	3.5	121	2.2
041	3.4	122	3.4
042	3.6	123	1.0
043	3.8	130	1.9
050	4.0	131	1.9
051	4.5	132	2.4
052	5.2	133	1.0
053	4.5	140	1.0
054	2.8	141	0.9
055	4.5	142	1.1
060	2.0	150	4.9
061	1.8	151	4.0
062	2.5	152	5.0
064	5.4	160	3.0
065	2.9	161	3.0
066	1.9	162	3.0
067	3.5	170	6.0
070	7.0	171	4.4
071	7.4	172	5.8
072	8.3	173	7.0
073	6.5	174	6.9
080	6.0	180	6.0
081	6.5	181	5.2
082	3.0	182	7.6
083	6.0	190	4.0
084	10.0	191	2.2
090	3.0	192	4.1
091	0.1	193	5.6
092	3.4	194	3.8
093	3.4	195	7.0
095	1.2	196	6.0
100	0.5	197	5.0
101	1.5	198	4.0
		200	5.0
		201	5.0
		202	4.9
		203	5.0
		210	5.0
		211	9.2
		212	4.4
		213	9.0
		214	5.0
		220	9.0
		221	8.3
		222	8.7
		223	10.0
		224	7.0
		225	9.0
		226	8.0

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