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System polarities and alliance politics

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SYSTEM POLARITIES AND ALLIANCE POLITICS

by

Sung Woo Kim

An Abstract

Of a thesis submitted in partial fulfillment
of the requirements for the Doctor of
Philosophy degree in Political Science
in the Graduate College of
The University of Iowa

December 2012

Thesis Supervisor: Associate Professor Kelly M. Kadera

ABSTRACT

The end of the Cold War in 1990 was followed by a shift from a bipolar to a unipolar world, profoundly transforming the nature of international alliance politics. Then, what are the systemic features of the unipolar system that have changed alliance relations in comparison to the previous bipolar and multipolar world? How can we explain the diverse reaction of the U.S. allies in different regions in response to the U.S. request for the modification of alliance functions and reshaping of the alliance burden sharing? How do we measure and interpret changes in the nature of alliance politics in a unipolar system? The goal of this project is to provide a systematic answer to these questions. Focusing on international system polarities and alliance burden sharing behavior, this dissertation builds a framework for understanding the dynamics of alliance politics. In particular, I argue that alliance burden sharing as an empirical indicator plays a critical role in explaining the changed nature of the unipolar alliance system. First, I examine how the two interrelated systemic factors – external threat and the distribution of power – influence alliance burden sharing with a system-level analysis by utilizing a quantitative method with state-year burden sharing data from 1885 to 2000. Second, I present case studies of South Korea and Japan's alliance burden sharing in the post-Cold War period. A central argument of the dissertation is that the role and function of alliance is determined by structural constraints of different international system polarities. Specifically, this project demonstrates that burden sharing is a key factor representing the impact of systemic properties of unipolarity on the behavioral changes in alliance politics.

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CERTIFICATE OF APPROVAL

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PH.D. THESIS

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This is to certify that the Ph.D. thesis of

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존경하는 부모님, 그리고 사랑하는 가족 (혜성, 희연, 도연)에게 바칩니다.

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The end of the Cold War in 1990 was followed by a shift from a bipolar to a unipolar world, profoundly transforming the nature of international alliance politics. Then, what are the systemic features of the unipolar system that have changed alliance relations in comparison to the previous bipolar and multipolar world? How can we explain the diverse reaction of the U.S. allies in different regions in response to the U.S. request for the modification of alliance functions and reshaping of the alliance burden sharing? How do we measure and interpret changes in the nature of alliance politics in a unipolar system? The goal of this project is to provide a systematic answer to these questions. Focusing on international system polarities and alliance burden sharing behavior, this dissertation builds a framework for understanding the dynamics of alliance politics. In particular, I argue that alliance burden sharing as an empirical indicator plays a critical role in explaining the changed nature of the unipolar alliance system. First, I examine how the two interrelated systemic factors – external threat and the distribution of power – influence alliance burden sharing with a system-level analysis by utilizing a quantitative method with state-year burden sharing data from 1885 to 2000. Second, I present case studies of South Korea and Japan's alliance burden sharing in the post-Cold War period. A central argument of the dissertation is that the role and function of alliance is determined by structural constraints of different international system polarities. Specifically, this project demonstrates that burden sharing is a key factor representing the impact of systemic properties of unipolarity on the behavioral changes in alliance politics.

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CHAPTER I

INTRODUCTION

The end of the Cold War in 1990 was followed by a shift from a bipolar to a unipolar world, profoundly transforming the nature of international alliance politics.[1] By definition, a unipolar system is an extraordinary imbalance of power dominated by a single superpower, the United States (Ikenberry, Mastanduno, and Wohlforth 2009).[2] Under unipolarity, greater power competitors, or their coalition, are unlikely to challenge the primacy of the leading state. Thus, for the unipole, the underlying motivation for alignment is not as strong as it is in a bipolar system. Nonetheless, most U.S. alliances, often regarded as a Cold War legacy, continue to operate. Furthermore, the U.S-centered alliance network has been augmented by the addition of new members after the collapse of the Soviet Union. Then, does a unipolar alliance system retain the basic functions of a bipolar or multipolar system, such as deterring a common threat and defeating it, if actualized? To answer this question, it is necessary to examine how the new unipolar security environment influences alliance politics and its behavioral characteristics.

In particular, current debates on alliance burden sharing demonstrate that a new international system is shaping alliance politics very differently from that of the bipolar

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[1] See Ikenberry, John, Michael Mastanduno, and William C. Wohlforth. 2009. Unipolarity, State Behavior, and Systemic Consequences. *World Politics*, Vol. 61: 1-27; Jervis, Robert. 2009. Unipolarity. *World Politics,* Vol. 61: 155-187; Walt, Stephen M. 2009. Alliances in a Unipolar World.*World Politics*, Vol. 61: 86-120.

[2] The definition of a unipolar power is widely debated however, the U.S. is generally considered as the unipolar power. The U.S. is the world's largest economy (roughly 60 percent larger than the number two power, China), the most powerful military whose annual expenditure surpasses those of the rest of the world, and a country that can project its massive military power to anywhere and keep it there for an indefinite period (see Wohlforth 2009).

system. First, the end of the Cold War confrontation decreased traditional military dimensions of alliance functions and converted the scope of burden sharing to multidimensional contributions for other international public goods – financing North Atlantic Treaty Organization (NATO) enlargement, economically aiding developing countries, and supporting multinational peacekeeping operations (Chalrmers 2002). However, broadening the burden sharing debate tends to intensify intra-alliance tensions, particularly due to the difficulties in measuring a fair distribution of burden. Second, the disappearance of the political fault lines of the Cold War allowed researchers to focus more on ad-hoc based coalitions and other non-institutional alliances (Bennett, Lepgold, and Unger 1994). For example, Donald Rumsfeld, the former Secretary of Defense, emphasized ad-hoc "coalitions of the willing" in the post-Cold War alliance by stating that "[T]he mission determines the coalition" (quoted in Walt 2009, 95). Also, a strategic shift of the U.S. alliance policy from a "threat-based" to a "capabilities-based" alliance implies that the burden sharing structure will be determined not only by the allies' ability to pay but also by their willingness to participate in military operations.

Indeed, burden sharing appears to be a central issue determining the wax and wane of the unipolar alliance system. In contrast to neo-realism's hasty prediction that NATO would be dismantled in the absence of the Soviet threat (Layne 1993; Mearsheimer 1990; 1994; and Waltz 1993; 2000), the expansion of NATO made room for the alternative theoretical argument that NATO would persist and last longer by modifying its functions and burden sharing facility as an international institution (Hellmann and Wolf 1993; McCalla 1996). Constructivists contend that the continuation of the NATO alliance system results from a 'collective security identity' of the Western

democracies formulated in the extraordinary cultural-context of the Cold War. The security community would expand beyond the Western hemisphere in accordance with the growth of democratic society (Kadera, Crescenzi and Shannon 2003; Katzenstein 1996; Risse 1996). However, the U.S. decision to unilaterally wage a war against terrorism after the incidence of 9/ 11 provoked NATO's resistance to share the burden, implying that NATO might no longer maintain the Atlantic order, in a condition that Ikenberry (2008) calls "the end of the West." Recently, in his farewell address in Brussels, Robert Gates (2011), the former U.S. Defense Secretary delivered a blunt warning to NATO allies that "there is the real possibility of a dim, if not dismal future for the transatlantic alliance, unless NATO member states undertake a firm commitment to increase defense spending and make a bigger commitment to NATO operations."[3]

In the Asia-Pacific region, the traditional U.S. bilateral allies (e.g., Japan, South Korea, and Australia) play a more active role in supporting the U.S. alliance policies through renewing their strategic relationship with the U.S. and contributing more material and financial support. Japan, once severely criticized as a representative bandwagoner during the Cold War, is now acknowledged as a pivotal alliance partner of the U.S. and a regional security provider. In the post-Cold War era, Japan has substantially increased its commitment to the US-Japan alliance by actively participating in military technology exchange and in the U.S. plan on the Theater Missile Defense (TMD), and providing Host Nation Support (HNS)[4] to the U.S. forces stationed in Japan (Green and Cronin

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[3] http://www.voanews.com/english/news/Gates-Tells-NATO-Members-They--Must-Pay-Fair-Share----123608674.html

[4] According to 2004 *Statistical Compendium on Allied Contribution to the Common Defense*, bilateral cost sharing is divided into two categories: whether the costs are borne by the host nation

1999). In fiscal year 2003, Japan is the second largest country in terms of defense spending and contribution to foreign assistance. Japan is also the number one contributor to multinational peace support operations (U.S. DOD 2005).

Since 1991, the Republic of Korea (ROK), being one of the security beneficiaries of the U.S. during the bipolar system, increased its contribution to the common defense in terms of both military and financial costs. As a result, the ROK is regarded as a "vital" U.S ally in the Asia-Pacific region (NSS 1995). The ROK has actively participated in the U.S.-led overseas operations in Iraq, Afghanistan, the Gulf of Aden, Lebanon, and U.N. peacekeeping and humanitarian assistance operations. Although the wartime operational control (OPCON) will be transferred from the U.S-South Korea Combined Forces Command (CFC) to South Korea's Joint Chiefs of Staff (JCS) in 2015, President Lee Myung-bak and President Obama during a joint press conference, in June 2010, emphasized that the U.S.-ROK alliance is the lynchpin of security not only for the two countries but for the Pacific region in general (Hearing of General Walter L. before the Senate Armed Services Committee 2011).

How can we explain such diverse reactions of the U.S. allies to the modification of alliance functions and reshaping of the burden sharing structure? In this research, I provide a systematic answer to this question. Despite a large volume of studies in alliance politics, the link between different structures of the international system and the behavioral change of alliance politics still leaves much to be investigated. What are the

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on-budget (direct cost sharing); or as imputed values of forgone revenues (indirect cost sharing). Direct cost sharing includes costs borne by host nations in support (HNS) of stationed U.S. forces for rents on privately owned land and facilities, labor, utilities, and vicinity improvements. Indirect cost sharing includes forgone rents and revenues, including rents on government-owned land and facilities occupied or used by U.S. forces at no or reduced cost to the United States, and tax concessions or customs duties waived by the host nation (U.S. DOD 2005, p. A-3).

systemic features of the unipolar system that have changed in comparison to the previous bipolar and multipolar world? How can we explain the different paths that the U.S. allies are taking in response to the U.S. supremacy and changed security environment? In short, how do we measure and interpret such a change in the nature of alliance politics in a unipolar system?

This project aims to explain the characteristics of unipolar alliance politics by focusing on alliance burden sharing behavior. Since the concept of alliance burden sharing was introduced by Olson and Zeckhauser (1966), many studies have examined the nature of economic incentives that alliances produce, based on assumptions of rational and self-interested behavior (Olson and Zeckhauser 1966; Russett 1970; Starr 1974; Oneal and Elrod 1989; Sandler 1977; Oppenheimer 1979; Sandler and Forbes 1980; Reisinger 1984; Thies 1987; Conybeare 1992; 1994). For those economic theory practitioners, alliance burden sharing is an important variable to empirically test the functionality of alliance to achieve the collective (or private) interests of member states. From the standpoint of a public good model that highlights the nature of security provided by an alliance to be a collective good (Olson and Zeckhauser 1966), a disproportionate burden sharing behavior by larger allies evidences the suboptimality of the provision of a public good and the subsequent free-riding tendency of minor allies that are predicted attributes of alliance.

Alternative economic models of alliance have paid attention to the infeasibility of the propositions assumed by a public good model in the reality of alliance politics. For example, Sandler and his colleagues (Sandler 1977; Sandler and Forbes 1980; Murdoch and Sandler 1982) argue that an alliance is not necessarily a pure public good but a

hybrid of a pure public and a pure private good. That is, the economic incentive of alliance is sensitive to changes in the perceived threat (i.e., common vs. individual), allied defense strategies (i.e., deterrence vs. defense), and technological development of the weaponry system (i.e., precision-guided missile). Thus, an ally's burden sharing behavior depends on the combination of its private and public goal of an alliance, and a free-riding tendency is not applicable in all alliances. John A. C. Conybeare (1992; 1994) addresses a portfolio benefit structure of alliances with which an ally can diversify its risk and return in the hope of producing greater return and lower risk. In other words, under the condition that the function of alliance is an aggregation of capabilities and its choice of coalition is flexible, the efficiency of alliance is determined by an investor's optimality of portfolio in which smaller resources invested in an alliance in comparison to its benefits received might be an evidence of the portfolio superiority rather than the suboptimality of a collective good. Although those models provide important implications about the economic incentive of an alliance related to its burden sharing behavior, a system-level analysis of burden sharing behavior and the dynamics of alliance politics has been rare.

From the perspectives of structural alliance theories, international system structure plays a dominant role in determining the behavioral characteristics of international politics, including alliance behavior (Waltz 1979; Walt 1987; Snyder 1991; 1997; Mearsheimer 2001). Although neo-realist theory presents a parsimonious explanation of the logic of alliance formation such as the balance of power, or the balance of threat, it has not paid much attention to changes in the relationships among members within an alliance and its dismissal. In an anarchical world, the nature of alliance is a temporal coalition of like-minded allies in pursuit of their survival by maintaining power

(or threat) balance with adversaries. Thus, burden sharing behavior is not critical to accounting for the maintenance of alliances. By definition, the logic of alliance in a multipolar world relies on the flexibility of alliance choices and a prevailing concern about mutual defection among allied states. Although the existence of multiple buck-catchers creates a strong incentive to pass the buck (Mearsheimer 2001), the concept of burden sharing is not applicable to account for allies' defense spending behavior.

Bipolarity is characterized by the power distribution of the two ideologically polarized superpowers that are willing to extend their security guarantees to others in need. Also, alliance choice is determined by the systemic structure, in which the two superpowers have no motivation to ally with each other and to allow their allies to realign (Waltz 1979; Snyder 1990). Under the condition that two leaders try to provide more security to their minor power allies, there exist the economic incentives of minor allies for riding free since their contribution makes little difference. Moreover, alliance burden sharing is not critical to determine the fate of the alliance because the bipolar alliance system is maintained by the two system leaders' own capabilities and security interests but not by the efficiency of alliance.

The system structure of unipolarity is characterized by the absence of structural threat and the extraordinary imbalance of power distribution (Jung 2012a; Wolforth 1999; Ikenberry et al. 2009; Walt 2009). First, the absence of structural threat does not mean a threat-free world. Rather, it refers the fact that various sources of local, or regional, threat presumed to undermine structural system stability and managed by the bipolar alliance system during the Cold War period should be redefined in terms of specific security contexts that each ally copes with (Wolforth 1999). Second, the reshaped power structure

of unipolarity has increased the unipole's freedom of action to a great extent while intensifying the fear of abandonment among its minor power allies (Walt 2009). Because counterbalancing the unipole is improbable, allied defense backing by the unipole is the most assured security tool for its allies' national defense. In short, a structural shift to unipolarity and the continuation of the bipolar alliance system brought about the need to restructure alliance politics.

I argue that alliance burden sharing as an empirical indicator plays a critical role in explaining the changed nature of the unipolar alliance system. First, the value and the necessity of an alliance depend on the unipole's strategic interest. As Jentelson (2010) argues, a primary purpose of the unipolar alliance system aims to preclude the emergence of any potential future competitor in the absence of structural threat. Also, only the unipole has enough capabilities to make a decision based on its own interest and to force its allies to adjust their defense posture in accordance with the shifts of its own alliance strategy. The Bush administration's "capabilities-based" alliance policy, for example, indicates changes in the validity of alliances. Second, alliance cohesion, which was predetermined by the structural constraints of the previous multi- and bipolar system, is a matter of intra-alliance relationship. Two systemic properties of unipolaritiy – the absence of structural threat and the extraordinary imbalance of power – have drastically reduced alliance cohesion, the most important factor accounting, not only for the efficiency of the alliance, but also for burden sharing behavior. Thus, in fear of the increased possibilities of abandonment by the unipole, its minor allies tend to respond more sensitively to the unipole's alliance initiative and to increase their political and economic contribution to alliance burden sharing.

1. 1. Arguments

My major argument is that two interrelated systemic factors – external threat and distribution of power – explain the dynamics of alliance burden sharing behavior. In other words, the economic incentives of an alliance and the corresponding alliance burden sharing behavior result from the structural constraints of different international system polarities. Alliances are substantially different in multipolar, bipolar, and unipolar systems (Sndyer 1990). Regarding the relationship between alliance politics and system structure, neorealist theory provides a succinct explanation:

> Alliance should be placed in the context of system structure and process. Systemic anarchy is one stimulus to ally, although not always a sufficient one. Structural polarity- how military power and potential are distributed among major states – has important effects on the nature of alliances and alliance politics (Snyder 1990, 107).

In multipolarity, two key systemic factors are uncertainty about structural threat and the balance of power among multiple system leaders with relatively equal capabilities. Thus, the major function of alliance is identifying who is friend and who is foe in an anarchical world (Snyder 1997). The resulting identities and power aggregations are provisional and temporary in order to maintain the flexibility of the balance of power mechanism (Snyder 22). Given an unclear distinction between friends and foes and a multiplicity of alliance choices, the inducement for allied contributions would be minimal. Although the allies may share common interests, they do not have the incentive to invest their resources to allied defense because they are not certain about the intentions of the others. Therefore, alliance burden sharing is likely to take the form of behavior predicted by a joint product model (Sandler 1977; Sandler and Forbes 1980).

In bipolarity, structural threat is clearly identified and the balance of power is maintained by two leading states. In contrast to a multipolar world, disturbances in the power distribution can only be regulated by internal efforts of the system leaders. Insofar as two superpowers are willing to bear disproportionate alliance burden to deter each other, their minor allies would have incentives to reduce their defense effort because their contribution makes little change. Then, such an economic incentive would motivate their minor allies to ride free, which is the predicted behavior by a collective good model (Olson and Zeckhauser 1966). A prevailing tendency of gaining security with minimal contribution can also be interpreted as "bandwagoning for profit" (Schweller 1994). However, it is expected that the intrinsic leadership difference between the democratic United States and the coercive, or the imperial, Soviet Union influences their allies' burden sharing behavior.

The structural shift to unipolarity may have brought substantial change into alliance politics. In a sense that threat is uncertain and alliance cohesion is decreased, the overall burden sharing pattern is apparently similar to that of multipolarity at a systemic level analysis. However, the inflexibility of alliance choice and non-structural threat led the U.S. allies to redefine their strategic values in terms of changed security environments and the unipole's global security strategy (Jung 2012a). In particular, the security incentive of an alliance is likely to be transformed to a joint product model since the features of a public good model – non-rival and non-excludability – are violated (Sandler 2000; Sandler and Hartley 2001). Then, alliance burden sharing behavior is influenced by a new set of interests among allied states. In addition, when structural imperatives that primarily affect alliance behavior are absent, or relieved, particular non-structural threat

or affinities (i.e., specific territorial disputes or ideological attractions and repulsions) and marginal inequalities of military strength play a decisive role in determining alliance behavior (Snyder 1990, 108). In other words, states will have some expectation of being supported in war or in crises by states with whom they share interests and values rather than by formal alliances (108). To a large extent, this theoretical assumption explains an emerging type of ad-hoc coalitions in the post-Cold War era (Benett et al. 1994; Baltrusaitis 2008).

However, at a systemic-level approach, it is difficult to explain how the alliance burdens are shared because a new set of goals and functions of alliance are determined by an ally-specific security interest in unipolarity. In other words, the ongoing trend of the variations in the alliance burden sharing must be understood on the basis of the nature of non-structural threat and the diversity of security interest that each ally assumes and its own capacity to achieve its goals. In order to explain the cost sharing behavior of alliance within unipolarity, I present a new analytical framework, namely the alliance necessity-capacity theory.

I argue that alliance burden sharing within unipolarity is a function of varying degrees of ally-specific security interests and their own capabilities. The necessity of an alliance is determined by an ally's need for allied support; the degree to fulfill security goals by the alliance; and alternative means to meet the need (Sndyer 1997, 166). First, when the necessity of alliance is larger and an ally has sufficient capabilities to achieve the goals, its security dependence on alliances tends to be low and its burden sharing is selectively determined by its own needs. Second, when the necessity of alliance is larger but an ally has insufficient capability to fulfill the goals, it is likely to increase its share of

alliance burden to enhance the alliance commitment. Although an ally may make an effort to decrease the reliance on allied defense, its cost sharing behavior will be determined the size and the intensity of localized threat. Third, when an ally's necessity of allied defense is low and it has sufficient capacity to accomplish the goals, it is reluctant to increase its contribution to the alliance. Although it may not lead to the end of alliance in a short-term relationship, it will increase intra-alliance tension, gradually provoking the fear of abandonment in the longer-term. Fourth, when the necessity of alliance is low and an ally's own capacity lacks the ability to change its security condition, it has no incentive to share the burden of alliance while maintaining a contractual relationship.

1. 2. Methodology

This project employs a multi-methodological approach to develop and test the theory of international system polarities and alliance burden sharing. First, at the systemic level of analysis, structural constraints of different systemic polarities – multipolar, bipolar, and unipolar – and behavioral changes of alliances are examined in terms of their annual defense spending. Given that a state's defense spending is a function of internal attributes (i.e., a tradeoff epitomized by the guns versus butter metaphor) and international system factors (i.e., alliance relations, in particular), the statistical analysis utilizing a large-n data set will help establish the generalized relationship between systemic and domestic determinants on alliance politics and burden sharing behavior. To capitalize on the comparative advantages of empirical analyses, I examine monadic state-years from 1885 to 2001 using time-series cross-sectional (TSCS) analysis. To

distinguish the impact of system polarities on alliance burden sharing, three temporal variables – multipolarity, bipolarity, and unipolarity – are included. In addition, systemic effects of alliance on burden sharing behavior are examined in terms of the status of major and minor power allies by generating categorical variables differentiating pairs of alliance relationships such as the major-major power and the major-minor power alliance.

Second, at the alliance level, the alliance burden sharing pattern between the U.S. and its East Asian allies will be examined, focusing on the effects of a systemic shift to a unipolar system and the contextual relationships of specific alliances. The case studies of the two allies in East Asia – South Korea and Japan – emphasize how a changed international system structure affects their burden sharing behavior in the post-Cold War era. South Korea and Japan provide compelling cases to test the necessity-capacity theory of alliance. In contrast to NATO, which has been set adrift by the discord on burden sharing, these two U.S. bilateral allies have drastically increased their share of alliance burden in the first two decades of the post-Cold War. In addition, both South Korea and Japan are less influenced by the international institutions and shared interests and identities that are alternative explanations about the unipolar alliance politics. Empirically, these two cases illustrate how the necessity of alliance and an ally's own capacity in an ally-specific security environment determines its contribution to alliance cost sharing.

In addition to the traditional index of defense spending, namely the size of military expenditure as a proportion of the GDP (Olson and Zeckhauser 1966; Reisinger 1982; Palmer 1990), I will examine newly developed multidimensional indexes representing alliance cost sharing to explain alliance burden sharing within unipolarity. An emerging trend of alliance cost sharing is increases in the form of direct and indirect

investments to allied defense. Thus, I will utilize various indicators to highlight the role of burden sharing in the American-led post-Cold War alliance system such as the amount of the HNS program provided to facilitate stationing of U.S. forces in allies' territories, the contribution to multinational peacekeeping operations, the size of foreign aid and grants, and the direct support for U.S. global defense strategy, including the realignment of U.S. forces overseas.

1. 3. The Plan of the Dissertation

The doctoral dissertation will be composed of six chapters. First, Chapter 1 introduces the puzzle of this project focusing on the question of how the structural features of different systemic polarities influence alliance relationships and member states' defense efforts. Also, the reason that current theoretical explanations are limited to account for variations in alliance burden sharing in the post-Cold War period will be briefly discussed. Foremost, uncertainty about unipolarity as an inexperienced political system might have led alliance theorists to draw their attentions to institutionalized features or shared identities of an alliance formulated through the Cold War period rather than to the structural imperatives of unipolarity on alliance politics. In this project, the absence of structural threat and the extraordinary structure of power imbalance will be addressed as the most important driving force shifting alliance functions and subsequent burden sharing behaviors measured in multidimensional indexes.

Chapter 2 addresses previous studies on systemic level analyses of alliance defense spending. The existing literature on economic incentives of alliances and structural explanations of alliance relationships is abundant, scant attention is paid to

synthesizing these two schools of thought to analyze causal links between alliance relationships in different system polarities and economic incentives of alliances. It is important to find generalizable causes between alliances and member states' defense spending across space and time. However, such an effort may produce limited understandings about the dynamic nature of alliance in different international systems. Rather than simply assuming that security benefits created by an alliance are a public good which produce a collective action problem as predictive behaviors, this study highlights that an alliance as a relationship variable influences not only allied members' defense efforts but also other system- and domestic-level factors related to conflict behaviors in international systems. A fundamental proposition of this study is that various types of system polarities determine the nature of threat and hence alliance functions differently leading to shift causal relationships between alliances and burden sharing. Therefore, a variety of hypotheses on alliance defense spending will be developed through incorporating various theories of alliance behavior.

Next, Chapter 3 empirically tests how allied members interact differently in response to systemic changes of security environments and the economic advantages of alliances. The empirical testing endeavors to develop a predictable measure between system-level factors and behavioral changes of alliance cost sharing. To fulfill this purposive goal, monadic state-years are applied as a unit of analysis covering different system polarities and time spans. The data format will be a time-series cross-sectional (TSCS) focusing on the advantages of comparative analyses. To distinguish the effects of economic incentives of an alliance which might vary in terms of relative capabilities of allied members, two dichotomous variables are generated – major powers and minor

powers. In addition, the status of a great power ally is specified in terms of definitive differences of system polarities. In short, empirical findings present that patterns of alliance defense spending would be determined not only by different system structures but also by the varying nature of interactions among different pairs of alliance relationships.

Chapter 4 discusses emerging issues in the literature on post-Cold War alliances. Then, an intersectional-level explanation of alliance politics which is located between systemic- and alliance-level analyses is introduced to explain variations of burden sharing behaviors across different U.S. allies within the unipole system. In particular, this chapter highlights how alliance necessity as a contextual variable plays a critical role in determining alliance burden sharing in the post-Cold War era. In particular, intensified asymmetries of bargaining leverage between the unipole and its allies and an alliance-specific security context drive the U.S. allies, and sometimes even non-U.S. allies, to decide to increase their contributions for allied defense. To distinguish the effects of alliance necessity between the U.S. and its allies, recent shifts of the U.S. alliances strategies in the post-Cold War will be addressed as causal mechanisms of action-reaction.

To verify the impact of alliance dependence on burden sharing, two in-depth case studies will be conducted in Chapter 5. Most of all, the limited accessibility to alliance cost sharing data is the biggest obstacle preventing a quantitative analysis. Also, there is insufficient comprehensive understanding of alliance politics in a unipolar system because of a lopsided tendency in studying NATO burden. Thus, the two pivotal bilateral alliances in the East-Asian region –Japan and Republic of Korea – will be examined qualitatively. These two bilateral alliances will provide comparative advantages because

they originated in the beginning of the postwar era experiencing the strain of transition during the Cold War and beyond; their dependence on the U.S. alliances is greater in terms of their specific security environment and the U.S. post-Cold War grand strategies; their overall burden sharing for allied defense is closely associated with various multidimensional indicators that are newly devised in the post-Cold War era; and their domestic politics has different institutional features enabling comparative analysis.

Finally, Chapter 6 concludes this study with a discussion of the implications of the findings. It seems inevitable that we will reconsider causal mechanisms of allied burden sharing in the unipolar system where there is no structural threat and the public good theory is less likely to be applicable. When a viable threat is ambivalent, it is obvious that the motivation of military alliance tends be based upon ally-specific interests rather than institutional goals or shared identities. Nonetheless, it seems unlikely that an alliance would continue to work even when the requested costs exceed the expected benefits. Then, one of the critical questions in the unipolar alliance system is how much burden the U.S. allies are willing to bear in order to continue their alliance relationships with the unipole. Under the circumstances that allied burden sharing is decided by political relationships among allies who have both common and conflictual interests rather than by system structures, a predictive interpretation of alliance relations and burden sharing behavior will be less likely, but a specific state-to-state interaction may provide important implications about understanding the nature of the post-Cold War alliances.

CHAPTER II

A SYSTEMIC THEORY OF POLARITY AND ALLIANCE DEFENSE SPENDING

The concept of alliance burden-sharing can be derived from Mancur Olson's (1965) theory of collective action. Olson (1965) contends that despite commonly shared group interests, however, there is no shared perspective on how to distribute the costs of collective action (1965, 21). Using the case of NATO in the 1960s, Olson and Zeckhauser (1966) further this logic into military alliances to account for disproportionate burden sharing for collective defense between the larger and the smaller. However, greater complexity in burden sharing emerged from the late 1980s and continues to the present in accordance with the shift of system structure from a bipolar to a unipolar world. In other words, the idea of alliance burden sharing in the context of the new international security agenda (e.g., global war on terrorism, multinational peacekeeping operations, economic aid, and environmental pollution) indicates not only functional changes of alliances but also the importance of burden sharing in understanding the post-Cold War alliance system. In this chapter, I examine previous literature on economic theories of alliances and neo-realists' structural explanations of the nature of alliance politics. I will show how these two different theories of alliances are interrelated with one another suggesting testable hypotheses on different international system polarities and changes in allied states' behavior of alliance burden sharing. I argue that economic incentives of alliances and states' behavioral characteristics of defense spending are not fixed but vary in accordance with dynamic changes in international system polarities and the interactions among states with different rationales on alliances.

2.1. Alliances and Defense Spending

Based upon the economic attributes of alliance – its costs and risks, the literature of alliance burden sharing delves into the economic incentives of collective defense. The economic theory of alliances is composed of four major elements: 1) states are rational in allocating their military spending; 2) the nature of security provided by an alliance is a public or collective good; 3) the provision of a public good is suboptimal since members do not have incentive to pay the full cost; and 4) the free-riding tendency of minor partners is inevitable because the larger allies are willing to bear a disproportionate burden (Olson and Zeckhauser 1966; Thies 1987). In short, Olson and Zeckhauser's model contends that "moral suasion is inappropriate, since the different levels of contribution are not due to different moral attitudes, and ineffective, since the less than proportionate contributions of the smaller nations are securely grounded in their national interests" (1966. 278).

The logic of the economic theory of alliance is based on two properties of public good: non-excludability and non-rivalry. First, non-excludability means that "if the common goal is achieved, everyone who shares this goal automatically benefits, or, in other words, non-purchasers cannot feasibly be kept from consuming the good" (Olson and Zeckhauser 1966, p. 267). For example, the benefits of extended nuclear deterrence, or the U.S. nuclear policy of Mutually Assured Destruction (MAD) in the 1950s and 1960s, cannot be withheld from anyone of the NATO members. Second, non-rivalry connotes "if the good is available to any one [member] in a group it is or can be made available to the other members of the group at little or no marginal cost" (1966, p. 267). In the case that the larger party would have more to lose if allied defense failed, they

would place a greater value on collective defense bearing disproportionate burden. Under such circumstances, there exist disincentives for minor allies to contribute. Therefore, "the exploitation of the larger by the small" is predictable. Subsequent studies also show that a collective action problem is observable in the Warsaw Pact alliance (Starr 1974) and intergovernmental organizations (Russett 1970; Russett and Sullivan 1971).

Sandler and his colleagues contend that collective defense is not necessarily a pure public good. These authors classify purposive goals of alliance in three categories: "deterrence", which aims at threatening unacceptable retaliation in response to an attack against an enemy or its coalition, in which credibility plays a key role; "defense" which refers to the physical capabilities of preventing the success of an attack once launched by adversaries; and the combination of the two (Sandler 1977; Sandler and Forbes 1980; Murdoch and Sandler 1982; and Thies 1987, p. 303). Theoretically, the conditions of non-excludability and non-rivalry of the pure public good model tend to be violated in different contexts of alliances (Sandler 1977). For example, the credibility of deterrence can vary in terms of the geographic location of a threatened ally and the capability and will of the state issuing the threat, thus violating the non-rivalry condition; while credibility can also be controlled to some extent by the country that might be called on to make good use of its threats, thus violating the non-exclusiveness condition (Thies, p. 304). Thus, an economic good of allied defense is a by-product that is located somewhere between pure deterrence and pure defense (see Sandler 1977; Sandler and Forbes 1980; Sandler 2000; Sandler and Hartley 2001). In other words, the nature of a security good an alliance provides is rather a joint product of pure, impure public, and private good.

Based on the proposition of an economic theory of alliance that an ally's economic incentives drive to determine security benefits of allied defense, as well as its burden sharing behavior within an alliance system, empirical analyses are applied to alliances with different types and timeframes. Examining seven pre-1945 alliances, for example, Thies (1987) contends that burden sharing behavior is not identical with either version of economic alliance theory. In opposition to the prediction of Olson and Zeckhauser's model, the Triple Alliance and the Triple Entente show that the poorest member (Russia) devoted the largest share of national income to military expenditures (p. 308). Also, the Anglo-Japanese alliance 1902-1922, the Anglo-French entente since 1904, and the wartime alliances during the World War I empirically support the prediction of Sandler and his colleagues' joint product model that no substantial relationship between the size of allies and their defense effort is found. Conybeare, Murdoch, and Sandler (1994) buttress Thies' finding that the Triple Alliance and Triple Entente (1880-1914) are linked to a joint product model.

During the Cold War era, literature on burden sharing has focused on two competing alliance blocs – NATO and the Warsaw Pact. Beyond Olson and Zeckhauser's (1966) finding that NATO allies' burden sharing behavior in the 1950s and the 1960s demonstrates a pure public nature of collective defense with a significant positive correlation between member size and level of defense effort, Sandler and Forbes (1980) found that the burden sharing pattern in the 1960s and the mid-1970s is not statistically supportive of a pure public good model. They maintain that reduced credibility of the U.S. nuclear deterrence by adopting the strategy of flexible response led the NATO allies' defense to expend more effort to increase their own capabilities than to strengthen the

common defense. Murdoch and Sandler (1982) also investigate the allies' responsiveness to defense 'spill-ins' (i.e., benefits received from defense expenditures made by another ally) to test the consumptive relationship (e.g, complementarity versus substitutability) of NATO allies from the 1960 to the 1970s. Based on the utility maximization framework, Murdoch and Sandler (1982) examine whether an ally's demands for military expenditures are dependent upon other allies' relative prices, GDP, and defense spill-ins, in which a positive correlations indicates *complementarity* while a negative relationship shows *substitutability*. Their finding shows that the doctrine of 'flexible response' has reduced free riding through an induced complementarity among the jointly produced defense outputs. In contrast, Oneal and Elrod (1989) and Oneal (1990) argue that NATO allies' free-riding tendency has not decreased from the 1960s to the 1980s utilizing an alternative index of measuring degrees of collective good – each ally's ratio of military expenditure to GDP divided by the alliance-wide burden that is the NATO allies' total expenditure as a fraction of their combined GDP. According to Oneal and Elrod (1989), two factors were responsible for the apparent decline in the tendency to free ride: pursuit of private interests by Portugal, Greece, and Turkey producing a skewed outcome of NATO defense expenditure data; and an increase of regional economic interdependence among NATO allies. Rather, only the U.S. has had a greater than average burden over the whole period indicating that the tendency to free ride still prevailed among the rest of the NATO allies.

With respect to the burden sharing of the post-Cold War alliances, Hartley and Sandler (1999) argue that institutional expansion of NATO, which was a strategic response to the changed security environment and the U.S. enlargement policy, enhanced

the nature of collective defense substantially. For example, NATO's new crisis-management doctrine adopted from 1991 increased the responsibility of NATO's collective security function beyond the European borders, giving rise to purely public benefits of peacekeeping and peacemaking operations (Khanna et al. 1998; Sandler and Hartley 2001). Also, the evolutionary technology of defense systems, such as precision-guided munitions and rapid-reaction forces, contributed to reducing the impurity of conventional defense that criticism of NATO members' free-riding was no longer applicable (Hartley and Sandler 1999). Chalrmers (2002) also contends that the imbalance of burden sharing between the U.S. and NATO allies has decreased substantially due to the widening security functions of NATO and member states' fair contribution to the common defense.

In contrast to a positive view toward NATO's role as a collective security provider and its military and financial contribution for peacekeeping operations, Lepgold (1998) counters that NATO members are reluctant to provide contributions to out-of-area peace operations so that both humanitarian operations and operations designed to affect the political incentives of the actors in a conflict are likely to be seriously undersupplied. Put differently, Benett, Lepgold, and Unger's (1994) demonstrate that the free-riding problem of the collective good theory is not observable in the context of ad-hoc coalitions, a dominant type of collective defense in the post-Cold War era. Instead, alliance dependence and internally driven factors (e.g., state autonomy and organizational procedure) play more important roles in determining the level of burden contribution. Also, Baltrusaitis (2008) contends that three key features of a unipolar security system – the increased role of the United Nations Security Council (UNSC) in international peace

operations, the leadership of the U.S. as an international peace provider, and the strengthened democratic community – increased the potential of ad-hoc coalitions for military actions to resolve conflicts rather than institutional alliances. For example, Baltrusaitis (2008) shows that major contributors to *Operation Iraqi Freedom in 2003* in terms of burden sharing and military operational support were some of the U.S. allies whose security dependence on the U.S. was greater (e.g., Japan, Germany, and South Korea), neighboring countries of Iraq whose national security was challenged (e.g., Saudi Arabia, Kuwait, and UAE), and some non-U.S. alliance troops who received economic aid from the U.S. (e.g., Poland, Jordan, and Georgia), but not traditional NATO friends.

Indeed, various findings about alliance burden sharing provide some generalizable lessons. First, structural constraints of different system polarities may play a critical role in determining patterns of allied burden sharing. For example, two properties of a public good model – non-excludability and non-rivalry – are prone to be influenced by a perceived threat and alliance credibility that are a function of the system structure. In a multipolar alliance system, a collective action problem would not predominate because alliance choice is flexible and hence the fear of defection would decrease alliance credibility (Thies 1987; Conybeare and Sandler 1990). Meanwhile, the rivalry competition between the two superpowers during the Cold War era increased the number of asymmetric alliances (Morrow 1991),[5] enabling minor allies to ride free while imposing disproportionate burden sharing on the larger allies' shoulders (Olson and Zeckhauser 1965; Russett 1970; 1974; and Oneal and Elrod 1989). In addition, increasing

[5] Morrow's (1991) alliance data set is composed of 78 asymmetric and 86 symmetric alliances, in which 62 out of 78 (approximately 80%) asymmetric alliances are formed in the twentieth century.

complexity of burden sharing indicators and emerging research interest of cost sharing on ad-hoc military coalitions may result from systemic constraints of unipolarity – uncertainty about external threat and the lack of alliance cohesion.

Second, the causal link between military alliance and burden sharing depends more upon different international system structures but less upon the formal and the institutional mechanisms of alliances which have been the main focus of the economic alliance theories. In *Alliance Politics*, Glenn H. Snyder (1997, 20) argues that the causal relationship between the system structures and behavioral characteristics of units can be analyzed through two process variables: relationships and interactions. According to Snyder, relationships are the situational context transmitting structural effects to units' interactions. By the same token, international systemic changes bring into the contextual change of alliance as a relationship variable, and hence behavioral changes in alliance burden sharing. For example, alliance [alignment] is a relational variable delineating the lines of amity and enmity among units in the system and determining the general type of their relationship – adversarial, allied, or indifferent (Snyder 1997, 21). Also, it determines the focus of other relationship variables such as common and conflicting interests, relative capabilities, and interdependence (21). Therefore, it is plausible that the varying nature of alliance relationship produces different burden sharing behaviors in terms of different system structures and subsequently changed other relationship variables.

Third, previous literature on alliance cost sharing has focused on institutionalized alliances – NATO and the Warsaw Pact. Although these collective alliance systems played a pivotal role in accounting for the postwar alliance politics, they are not a typical

form of alliance (Thies 1987). Collective good theorists tend to address their findings as if they represent common features of alliance burden sharing while using the terms "alliance" and "international organizations" interchangeably (Thies, 305). As a result, little analysis exists on non-institutionalized alliances – both bilateral and multilateral alliances – formulated before and during the Cold War period, paying relatively little attention to the dynamic nature of burden sharing behavior in which economic incentives of allies are not static or predetermined.

2. 2. International System Polarities and Alliance Politics

In contrast to the economic theory of alliances that highlights how different economic incentives of alliance as a collective good influence allied members' defense spending, systemic theories of alliance, neo-realism in particular, suggest that structural constraints of different systemic polarities play a critical role in determining alliance functions and hence behavioral characteristics of member states. In *Nations in Alliance* (1962), George Liska emphasizes that "alliances are against, and only derivatively for, someone or something". Liska also contends that "cooperation in alliances is in large part the consequence of conflicts with adversaries" and "[M]ovement toward alignment sets in only when another state intervenes as a threat" (1962, 13). However, as Liska argues, "an international system does not maintain a particular structure of alignments indefinitely" but tends to dissolve, or sometimes "consolidate into new political communities", when the external threat disappears or when the efficacy of alliances changes (168). Snyder (1997) furthers Liska's claim – "alliances have no meaning apart from the adversary threat to which they are a response" (192). From the neo-realist

perspectives, external threat has been the most important driving force to account for the ebb and flow of alliance politics (Waltz 1979; Walt 1987; Snyder 1990, 1997; Mearsheimer 2001; 2007).

From the structural realist perspective, external threat is a given attribute of an anarchical world order. The structure or architecture of the international system forces states to pursue power for their survival leading them to compete with each other rather than cooperate (Waltz 1979; Mearsheimer 2007). The realist paradigm refers to the following assumptions: 1) the nation-state is a unitary actor in international relations; 2) international politics takes place in a state of anarchy where there is no higher authority; 3) power is the fundamental feature of international relations; and 4) international politics is a function of power, but not ethics or morality (Schweller 2003; Baltrusaitis 2008). In an anarchical world where there is no guarantee that one will not attack another, each state wants to be powerful enough to protect itself against actual, and potential, threat (Mearshiemer 2007, 72).

Furthermore, imbalances in the distribution of power enforce states to increase their own military capabilities internally, or to seek like-minded allies externally, for their survival. Thus, alliance is a consequence of state interactions in pursuit of seeking their security by aggregating material capabilities in an anarchical world. Such a simple and strong explanation of motivation has been the most dominant theoretical thread in accounting for the formation of alliance and its behavioral characteristics. For example, classical realists and structural realists argue that alliance politics is explained in the form of balance of power. Morgenthau (1985, 197) highlights the role of alliances as “a necessary function of the balance of power operating within a multiple-state system”. In

other words, Waltz (1979) contends that structural imperatives of the international system force status quo powers to pay careful attention to the balance of power. More recently, Walt (1987) and Snyder (1997) argue that balance of threat is a more dominant feature of alliance politics in the international system.

However, this is not to say that only the balancing mechanism induces states to form alliances in international systemic structure. Instead, alliance mechanisms as strategic responses of states to structural constraints vary in terms of their relative capabilities. As Mearsheimer (2001) puts it, balancing and buck-passing are the principal strategies that great powers utilize to prevent aggressors from disrupting the balance of power. With balancing, threatened states devote themselves to deterring their adversaries. That is, they are willing to contribute their material and economic resources to deter the aggressor. With buck-passing, threatened states try to have another great power check the aggressor while they attempt not to commit themselves (2001, 139). However, Mearsheimer argues that a strong tendency to buck-pass or free-ride inside balancing coalitions, although buck passing and balancing are apparently two contrasting ways of dealing with an aggressor.[6] On the other hand, the weaker the state, the more likely it prefers bandwagoning to balancing (Walt 1987, 29). Since the weaker states can do little to add power aggregation or material contribution to alliance, they must choose the security provider who has higher probability of winning. Also, the validity of weaker states as alliance partners is more likely to be related to their geopolitical location, the

[6] According to Mearsheimer, strategies of appeasement (providing concession to the aggressor hoping to lessen its threat) and bandwagoning (allying with the aggressor to get the spoils of victory) are considerable but not useful for dealing with the aggressor (2001, 139).

proximity to the aggressive powers, ideological attributes, and historical relationships rather than to their material capabilities.

In addition, structural features of different systemic polarities – multi-, bi-, and unipolarity – may exert huge influences on alliance behaviors. Mearsheimer (2001) contends that the strategic choice of great powers between balancing and buck-passing is a function of the particular architecture of the system. For example, in a bipolar system, balancing would be dominant since there is no party to pass the buck except two competing great power rivalries. Meanwhile, in multipolarity, a tendency of pass the buck is always possible because there is at least one potential buck-catcher in the system. In a unipolar world – or an unbalanced multipolar system, in Mearsheimer's term – buck-passing behavior is less likely because multiple great powers have a strong incentive to work together to prevent the potential hegemon possessing "more latent power and a more formidable army than any other great power in their region" (270). In short, strategic interests of alliances are largely derived from the structure of the international system because a strategic interest in preventing any potential aggressor from increasing capabilities can be made "at one's own expense or the expense of one's ally" (Snyder 1997, 23).

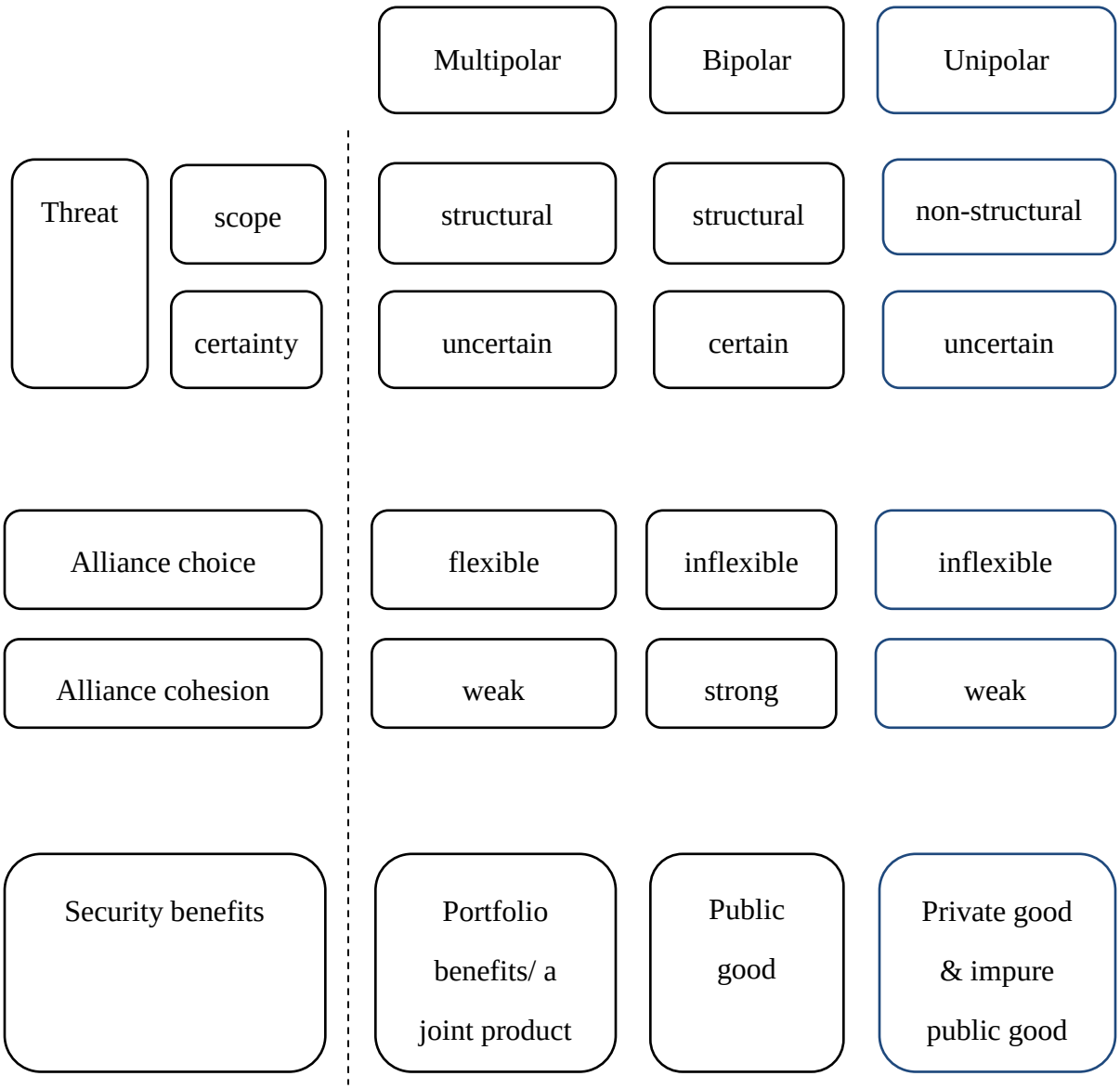
Then, what are structural features of different international systems bringing changes into alliance politics? In multipolarity, the formation of alliance and its commitment are hard to predict because "there is almost always a degree of uncertainty about who is friend and who is foe" (Snyder 1997, 19). Multipolarity is a system structure that is composed of more than three major powers with similar capabilities. When the number of greater powers increases, determinacy of alliance partners becomes

obscure. Waltz notes that "uncertainties about who threatens whom, about who will oppose whom, and about who will gain or lose from the actions of other states accelerate as the number of states increases" so that "the politics of power turn on the diplomacy by which alliances are made, maintained, and disrupted" (1979, 165). Although alliance agreements to some extent lessen the problem of uncertainty, they can never bring an end to distrust among allied states. Any member state can always defect from mutual commitment and alliances can be realigned in terms of the perceived threat and their security interests. That is, a critical feature of alliance contributing to maintain system stability from the sixteenth century to the early twentieth century is its *flexibility* meaning that "states can readily defect and realign if their interests require it" (Snyder, p. 19). Figure 2-1 presents impacts of systemic forces on alliance relationships and security goods of alliances.

In a multipolar world, the degree of alliance cohesion is relatively weak due to flexibility of alignment. Alliance cohesion is basically a function of external threat. Holsti, Hopmann, and Sullivan (1973) argue that "alliances are generally formed in response to external threat, [and] that their cohesion is largely dependent on the intensity and duration of the threat, and … one major cause of their disintegration may be the reduction or disappearance of the external threat" (p. 88).[7] According to neo-realist perspectives,

[7] The term, alliance cohesion, has been used in various ways. Some refer to the ability of alliance partners to agree upon goals, strategy, and tactics, and to coordinate activities directed toward those ends. Others use the term in a way that overlaps with alliance efficacy. Finally, it is used as the antonym of disintegration (Holsti et al. 1973, 16). In this project, the last use of the term is considered to mean that the more closely linked a state is to its ally, the lower the risk of abandonment, and the greater the chance it will have access to its ally's capabilities if it needs them (Sorokin 1994, 426). In other words, alliance cohesion is analogous to the probability that state A is able to use state B's arms or the expected proportion of state B's arms to which state A will have access (426).

Figure 2-1 Structural Determinants of Alliance Defense Spending



alliance cohesion is as important as its formation since alliances are costly in terms of restricting members' autonomy to use of force and increase the need of actual resources – both troops and material (McCalla 1996, p. 451). When the external threat becomes greater, alliance cohesion is more consolidated. The greater alliance cohesion, the greater the accessibility of ally's capabilities in needs (Sorokin 1994, p. 426). On the contrary, as external threat declines, alliance cohesion diminishes reducing the accessibility to an ally's aggregated capability. Under such circumstances, it is more likely that allied members are reluctant to provide their resources for mutual commitment.

Flexibility and lack of cohesion are systemic attributes of alliance that constrains strategic choices of allies. When an alliance forms, a state's alliance strategy must attract a potential partner or satisfy a present ally. Those who are unattractive may suffer from the greater risk of being abandoned by present and potential allies. Alliances are based upon some, but not all interests in common, so that the essence of common interest is negative: fear of other states (Waltz, 166). Although the rigidity of alliance blocs reduces the fear of defection to some extent, the balance of power is still reluctant to be disturbed when a member of one alliance tries to settle differences, or to cooperate in some ways, with a member of another alliance (166). A pervasive concern in a multipolar system is the fear of being attacked from an unattended direction at an unexpected time. Thus, it is logical to predict that all states must keep forces deployed against all possible enemies (Snyder, 20). Under such circumstances, alliance tends to be maintained through diplomatic expertise and careful management rather than policy coordination as seen in the balance of power world of Metternich and Bismarck. As Waltz emphasizes,

"[multipolar] alliance strategies are always the product of compromise since the interests of allies and their notions of how to secure them are never identical" (166).

Moreover, expected alliance benefits and corresponding costs are hard to measure. In principle, security benefits of alliances are determined by three factors: the intensity of threat posed by an adversary or its coalition; the adversary's relative capability; and the degree of conflict with the adversary (Snyder 1997, p. 45). That is, alliance need and its benefits increase when the threat is critical; the relative capability of the enemy is stronger; and the intensity of conflict is severe. However, by definition, a vital threat to the national security is uncertain and the gap of relative power among great powers is fairly small. Moreover, a tentative distinction between friends and enemies leads allied members to be less willing to secure alliance commitment when the perceived threat changes. Therefore, the degree of military coordination and alliance cost sharing was extremely limited even in the case of alliances that continued for several decades, such as the Austro-German alliance or the Franco-Russian alliance (Thies 1987, 306).

However, a structural shift to a bipolar world changed the nature of alliance drastically. During the Cold War era in which two ideologically polarized superpowers with similar capabilities compete one against another, the structural threat becomes clearer and plays a more significant role in determining alliance behavior (see Walt 1987). In contrast to a multipolar system, the question of "who is a danger to whom is never in doubt" (Waltz 1979, p. 170). Snyder (1990) also argues that "alliance formation is a much simpler process in a bipolar than in a multipolar system. Who allies with whom is much less a matter of choice and more a matter of systemic determination; at least this is

so in the core sector of the system where the principal security interests sector of the superpowers lie" (117). Under such circumstances, neither has minor ally incentives to realign with the opposite superpower nor is the defection allowed by superpower allies. Therefore, alliance formation and its maintenance are quite stable and *less flexible*.

Then, the formation of alliance is determined by the systemic structure rather than strategic choice of states to maximize security interests. First, the relationship of the two superpowers is always competitive since the only conceivable threats to their survival come from each other (Snyder 1997, 19). In a bipolar world, there is no other state in the system powerful enough to threaten either one and thus to provide an incentive to ally. Although the competitiveness of their rivalry can fluctuate in terms of changes in the contexts of security environment (e.g., the Cold War and Détente), their relationship is 'naturally' and 'logically' competitive (19). Second, the two leading states are willing to extend their security guarantees to small states either coercively or responsively at their request. As a structural imperative to account for the formation of NATO in the postwar era, the mutually perceived threat toward the Soviet Union among Western European states led them to voluntarily join in the American alliance system. The formation of the Warsaw Pact in 1955 was the Soviet's need to impose their protection by force to compete with American allies (Snyder 1990, 117).

The degree of alliance cohesion is strong since the structure of the bipolar system provides little opportunity or incentive for defection. Snyder (1990) contends that "the two superpowers have no common enemy strong enough to motivate them to ally, and their allies either have no incentive to realign with the opposite superpower, or if they do have an incentive, they will be prevented from acting upon it by their own patron" (118).

Then, two superpowers tend to provide more security to their minor partners regardless of their contribution, if doing so is necessary to the security interests of the two superpowers. In a multipolar world where dangers are diffused, responsibilities unclear, and definitions of vital interests obscure, skillful balancing is designed to gain an advantage over one state without antagonizing others and frightening them into united action. However, in a bipolar world where two superpowers see a loss for one as a gain for the other, they tend to respond to unsettling events (Waltz, 170-71). When there are only two powers capable of acting on a world scale, "anything that happens anywhere is potentially of concern to both of them" (171). Bipolarity also extends the geographic scope of both powers' concern broadening the range of factors provoking the competition between them (171).

Inflexibility of alignment and the strength of alliance cohesion are important systemic factors of a bipolar world that enhance allies' flexibility of security policy. Waltz (1979) argues that "[I]n a bipolar as in multipolar worlds, leaders of allied states may try to elicit maximum contribution from their associates. The contributions are useful even in a bipolar world, but they are not indispensable. Because they are not, the policies and strategies of alliance leaders are ultimately made according to their own calculations and interest" (169). For example, the shift of U.S. nuclear deterrence strategy from *Mutually Assured Destruction* (MAD) to *Flexible Response* (FR) in the early 1960s was made in terms of its own strategic concern despite strong objections of its NATO allies and even France's withdrawal from this North Atlantic alliance.

Also, systemic features of a bipolar system tend to create economic incentives of alliances that are frequently referred to as a collective good. Because allies add relatively little to the superpowers' capabilities, the quota of both military and financial costs of

alliances tends to go to the hands of superpowers. Insofar as these two superpower allies are willing to bear disproportionate burden sharing for their own dispositions of alliance strategy, alliance benefits are not likely to be excludable or competitive to their minor allies within alliances. Then, allied security that an alliance produces is closer to a public good (Olson and Zeckhauser 1966). As shown in the example of NATO's cost sharing behavior in the 1950s and the 1960s, the free-riding tendency of European allies was predictable and the fairness of alliance burden sharing and degrees of military coordination were less important.

In a unipolar world, a dearth of structural constraints on the unipole's behavior is a key feature of alliance politics (Jung 2012a). Unipolarity is a new political phenomenon defined as "a structure in which one state's capabilities are too great to be counterbalanced" (Wolforth 1999, 9).[8] From the standpoint of the unipole, the U.S., it is no longer necessary to devote significant effort to maintain military coordination with its weaker allies, except for the cases when the U.S. wants to legitimize a particular course of action to keep overseas military facilities necessary for stationing the troops (Walt 2009, p. 94). Because only the unipole can act at will and its impact will be far-reaching to most other states within the system, even longtime allies tend to worry about the excessive power concentration in the unipole's hand (Walt 2009, 95). Then, the motivation of alliance formation with the unipole, or duration of the Cold War alliance system, is simpler in comparison to previous multi- and bipolar worlds: accommodating or bandwagoning with the unipole (Wolforth 1999; Monteiro 2012).

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[8] Wolforth (1999, 9) also contends that unipolarity must be distinguished from an imperial system that is composed of only one major power, periphery, and semi-periphery states since "[in unipolarity] capabilities are not so concentrated as to produce a global empire".

In other words, alliance choice is composed of the alternatives: ally with the unipole or not (Jung 2012a). In some sense, it appears that balancing is no longer an available option for the minor powers in unipolarity because "unipolarity takes away the principle tool through which minor powers in bipolar and multipolar systems deal with uncertainty about great power intentions – alliances with other great powers" (Monteiro 2012, 24). Wolforth contends that the available options to second-tier states are "to bandwagon with the polar power (either explicitly or implicitly) or, at least, to take no action that could incur its focused enmity" (1999, 25). Monteiro (2012) also specifies the intentions of 'accommodation'[9] between major powers and minor powers.

> Accommodation is less risky for major powers because they can guarantee their own survival, and they stand to benefit greatly from being part of the unipolar system. Major powers are therefore unlikely to attempt to revise the status quo. Minor powers are also likely to accommodate the unipole, in an attempt to avoid entering a confrontation with preponderant power. Thus, most states will accommodate the unipole because the power differential rests in its favor (Monteiro 2012, 24).

However, structural shift to a unipolar world did not result in a threat-free world. Thus, regional balancing theory can be seen as an alternative in explaining the post-Cold War alliance system. From the unipole's perspective, the emergence of new geopolitical rivals is still the most important security concern such as a rising China threat, a resurgent Russia, and a control of the Persian Gulf oil by regional powers (Layne 1996; Mearsheimer 2001; Walt 2009). In March 1992, a Pentagon planning document was leaked to the press proposing that "our strategy must now refocus on precluding the

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[9] Monteiro (2012, 24) distinguishes the concept of 'accommodate' from 'bandwagon'. Accommodation implies merely acceptance of the unipole's preferences, without necessarily involving active appeasement while bandwagoning puts more weight on a form of appeasement.

emergence of any potential future competitor" (Jentelson 2010, 343). Also, both traditional and new U.S. allies in these regions regard the U.S. presence as vital to enhancing their security against regional threats. For example, Walt (2009) argues that Eastern European allies like Poland, Hungary, and the Baltic countries joined in NATO and actively supported the Iraq war in the hope of keeping the American "night watchman" against Russia's threat. And, Asian-Pacific countries like Japan, South Korea, Australia, Singapore, Vietnam, Malaysia, Indonesia, the Philippines, and India are eager to strengthen strategic partnerships with the U.S. in pursuit of U.S. protection from regional threats.

In contrast to a bipolar world, alliance cohesion tends to be weak, or fragile, in terms of changed systemic features of unipolarity: non-structural threat and an extraordinary imbalance of power distribution. First, degrees of common interest that motivated states to form two blocs of alliance systems during the Cold War have substantially decreased with the dissolution of the Soviet empire. As Wohlforth (1999) notes, alliances in unipolarity are not structural since a counterbalance against the unipole is unlikely.[10] This implies that the logic of security incentive which forced the U.S. to provide its minor power allies with security protection is no longer applicable. For example, although NATO's expansion appears to be designed for mutual benefits of common defense, it is most likely that the U.S., European major powers, and the rest of the minor power allies have a diverse reckoning on interpreting the security function of NATO (see Art 1991; 2003; Posen and Ross 1996; Layne 1996; Mastanduno 1997; Feith 2002).

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[10] Wohlforth (1999) notes that the system is not unipolar when counterbalancing is possible.

Second, an extraordinary imbalance of power distribution where only the U.S. possesses power preponderance enables the U.S. to have greater freedom of action. During the multi- and bipolar alliance systems, the rigidity of alliance strategy was an inverse function of alliance flexibility. The greater the flexibility of alliance choice, the greater is the importance of rigidity of alliance strategy. However, in a unipolar world, the unitary hegemon seizes decision-making authority over the rest of the allied members because it has enough capabilities to make a decision unilaterally. For example, the Bush administration's preventive war against Iraq without the United Nations Security Council's (UNSC) endorsement and a "capabilities-based" alliance policy demonstrated that allied support for the U.S. global leadership is now a matter of choice and only plays a partial role in determining the U.S. alliance strategy. An emerging trend of the U.S.-centered ad hoc military coalitions suggests that strong commitment to alliances is less likely to be expected in a changed security environment.

Non-structural threat and reduced alliance cohesion may change the alliance structure of economic incentives. In accordance with the loss of the commonality of allied defense, the security benefits of an alliance are likely to be transformed to a joint product that is a combination of pure public, impure public, and private good (Sandler and Forbes 1980; Sandler 2000; and Sandler and Hartley 2001). Conceptually, pure public good is unlikely to exist in the absence of a structural threat.[11] Thus, the essence of security benefits in the unipolar system is only the mixture of impure public good and private good. In other words, the benefit is not equitably distributed. Then, allies who

[11] Although the increased activities of the UN Peacekeeping missions have some aspects of the public good model, it is still debatable whether these operations are pure public good.

receive more benefits from an alliance have to pay more of the political and economic burden than the lesser beneficiaries. Yet, the more difficult question is how to measure and generalize about the "fairness" of burden sharing.

In particular, systemic imperatives to alter burden sharing structure might be greater to major and middle power allies of the U.S. than its minor power allies due to two factors. First, the proposition of a benevolent hegemon cannot eliminate uncertainty about the intentions of the U.S. in an anarchical structure of world order. According to Mearsheimer (2001; 2007), states ultimately want to know whether other states are determined to use force to alter the balance of power, or whether they are satisfied with the current status of power distribution. Yet, it is almost impossible to discern another state's intentions with certainty. Thus, in order to reduce fear of the unipole's disengagement from their national security, the traditional U.S. allies tend to spend more on their defense spending in pursuit of power under unipolarity.

Second, although there is almost zero probability of wars between great powers in unipolarity, the opportunities for the unipole to use force have increased either to provide systemic stability or to maintain its preponderance. Since the end of the Cold War, the U.S. has been at war for thirteen of twenty-two years: Kuwait in 1991, Kosovo in 1999, Afghanistan from 2001 to the present, and Iraq between 2003 and 2010 (Monteiro, 11). When US President Barack Obama came to power, the budget deficit of the U.S. caused by two unpopular wars in Iraq and Afghanistan exceeded US $500 billion (Hallams and Schreer 2012, 318). Although the unipole's tolerance of a prevailing tendency of bandwagoning among its minor allies may contribute to unipolar system stability (Wohlforth 1999), the U.S. is not likely to acquiesce as its minor allies to ride

free when its intervention policy overextends its capabilities. Therefore, it is more likely that the unipole puts more emphasis on the fairness of cost sharing among allies under the name of common defense than on allowing them to ride for free.

2. 3. Structural Changes of International Systems and Alliance Defense Spending

The structural effects of system polarities and corresponding alliance burden sharing within alliance relations provide a number of hypotheses to test. Foremost, it is necessary to conceptualize a causal relationship between alliance and burden sharing. Alliances are costly commitments in which expected benefits are supposed to be greater than actual costs. However, alliance costs can be measured in terms of "lost freedom of action (agreeing to let external events commit states to action and some degree of policy alignment) and actual resources (troops and material) committed to alliance needs" (McCalla 1996, 451). In other words, the costs of alliances might be either political or economic, or more frequently, a trade-off between the two (Morrow 1991). In general, the underlying condition of alliance formation is that an alliance applicant has its own rationale either to ally against or to ally with the threat. In order for an alliance seeker to be more attractive, it is unlikely for it to reduce its defense burden. Rather, these applicants tend to maintain at least their current level of defense effort, or to increase the amount of defense spending to draw more attention from potential allies. For example, a state reveals its preference for multiple military partnerships values that are combined effect of alliances, and is willing to spend more on national defense to draw potential allies into alliances (Palmer and Souchet 1994).

However, the relationship between alliance and defense spending also tends to be decided by relative capabilities among allied members. All else being equal, states with greater capabilities spend more on their national defense than those who have limited resources because the former tend to have more chances of engaging in international crises (Bremer 1980; Small and Singer 1982). In the context of an asymmetric alliance which is composed of a pair of major and minor power allies, a trade-off of autonomy and security produce a different pattern in allied defense spending (Altfeld 1984; Morrow 1991; 2000). Minor allies are more likely to provide their autonomy to their major power allies in compensation for guaranteeing enhanced security protection by them. Thus, a minor power's degree of defense spending tends to decrease when it forms an official alliance with a major power partner. In short, these two basic causal relationships demonstrate that certain type of costs would be accompanied when alliances are formulated, yet relative capabilities among alliance applicants play a critical role in determining alliance costs – either political or economic – because allies in an asymmetrical relation tend to value the security benefits of alliances differently. However, a generalizable model of alliance costs measurement is unlikely because alliance functions change in case of shifts in system polarities (Snyder 1997).

2. 3. 1. Multipolarity, Alliance, and Defense Spending

In a multipolar world, once an alliance is formed, it can reduce uncertainty about who is friend and who is foe so that allied members become dependent on each other concentrating aggregated power against the targeted adversaries (Snyder 1997, 22). Yet, such *quasi-structural effects*, in Snyder's term, are not as strong as a bipolar alliance

system due to fear of defection, or alliance flexibility. Thus, the identification of enemies and aggregated power concentrations are, at best, provisional and temporary (22). In order to enhance commitments to alliance, leaders of allied members may adopt a variety of alliance strategies: coordinating foreign policies and military plans, allocating preparedness burdens, and collaboration during adversary crises (Snyder 1990, 112). However, such efforts for alliance coordination are not likely to have significant impact since the core of the multipolar alliance system is derived from "its maintenance and functioning on neutrality of alignment" (Waltz 1979, 164). Moreover, even close allies cannot convince themselves of whether their partner's increased military effort is for its own sake or for the common interest. Therefore, causal links between alliances and allied defense spending are relatively weak under multipolairty.

Nonetheless, multipolarity tends to produce different patterns of alliance burden sharing between minor powers and major powers allies. As Snyder (1984; 1997) points out, the secondary alliance dilemma, which focuses on the mechanism of alliance management, is likely to prevail among allies – whether to strongly commit to alliance contract or to weakly commit and proffer no support in conflicts with the adversary (1984, 466). In a multipolar world, unguaranteed commitment causes two types of alliance dilemma that are inversely related: abandonment and entrapment. Abandonment refers to the fear of defection that may take a variety of forms: the ally may realign with the opponent; he may merely de-align; he may fail to make good on his explicit commitments; or he may fail to provide support in contingencies where support is expected (466). Entrapment refers to "being dragged into a conflict over an ally's interests that one does not share, or shares only partially" (466).

When considering relative capabilities between major and minor powers, the fear of abandonment may prevail over that entrapment among minor power allies. For example, for some city-states (e.g., Baden, Bavaria, Wurttemburg, Hanover, Saxoney, Hesse Electoral, and Hesse Grand Ducal) and minor powers located between more than two major power rivalries (e.g, Belgium, Denmark, Poland, and Finland) in the 19th and early 20th century Europe, their fate is doomed to be determined by the *balance of power* among multiple major powers. If these countries had been abandoned by their patrons, their survival might have been more endangered. Moreover, their security dependence on major power allies tends to be determined by historical background, diplomatic relations, ideological affinities, and domestic attributes, rather than their relative capabilities. Thus, degrees of defense spending among minor power allies are less likely influenced by alliances. However, the existence of multiple buck-catchers is more likely to lead their minor power allies to ride for free. Therefore, I hypothesize that a minor power aligned with major power allies tends to spend less on their national defense.

For major power allies, the availability of passing the buck to other major partners is also an important factor luring them to free-ride (Mearsheimer 2001). According to Mearsheimer (2001. 157-9), threatened great powers can take four measures to facilitate buck-passing. First, they can maintain good diplomatic relations with the aggressor in the hope that it will concentrate its attention on the intended buck-catcher. For example, if more than two great powers (e.g., France and the Soviet Union in the 1930s) are threatened by the same aggressor (e.g., Nazi Germany), a tendency of buck-passing would predominate among them by ameliorating diplomatic relations with the potential aggressor. Second, buck-passers tend to maintain a distanced relationship

with each other in order not to provoke an aggressor, as well as not to drag themselves into unwanted wars. Third, threatened great powers also try to spend more on their national defense in order to draw an aggressor's attention to the intended buck-catchers. This is better for them to prepare for the eventuality of failed buck-passing. Even if a great power successfully passes the buck to a buck-catcher, there is always the possibility that the aggressor might decisively defeat the buck-catcher and then attack the buck-passer. Fourth, great powers sometimes allow the intended buck-catcher to grow quickly without balancing it. For example, the United Kingdom and Russia remained on the sidelines and allowed the unification of German Reich by Otto von Bismarck in the hope of passing the buck to deter the expansion of France and Russia. In short, the causal link between alliances and burden sharing seems to depend upon a variety of motivations underlying buck-passing behavior among great powers.

Although the allure of buck-passing encourages great powers inside the balancing coalition to free-ride, systemic features of a multipolar world compel them to maximize power. As Mearsheimer argues, great powers are inclined to look for opportunities to alter the distribution of world power whether they try to prevent others from gaining power at their expense, or at the expense of others (2001, 3). Under multipolarity where identification of friend or foe is uncertain, it makes less sense that official alliances with other great powers would decrease their defense effort. Thus, it is hypothesized that a great power aligned with another great power is less likely to decrease its defense spending.

Hypothesis M1: In mulipolarity, a major power aligned with another major power is not likely to decrease its defense spending.

Hypothesis M2: In mulipolarity, a minor power aligned with a major power is likely to decrease its defense spending.

2. 3. 2. Bipolarity, Alliances, and Defense Spending

In a bipolar world, balancing behavior in alliance politics would be differently achieved from in the multipolar system (Waltz 1979, 163). For example, Waltz (1979) argues that power imbalance in bipolar world can only be adjusted by internal efforts of two great powers:

> Military interdependence varies with the extent to which, and the equality with which, great powers rely on others for security. In a bipolar world, military interdependence declines even more sharply than economic interdependence. Russia and America [the U.S.] depend militarily on themselves. They balance each other by "internal" instead of "external' means, relying on their own capabilities rather than on the capabilities of allies. Internal balancing is more reliable and precise than external balancing (Waltz, 168).

Hence, regardless of the relative capabilities of both major and minor power allies, bandwagoning might be a dominant tendency in the bipolar system.

In comparison to a multipolar alliance system, the causal relationship between alliances and defense spending becomes clearer and more predictable. First, certainty of threat substantially reduces both the first and second type of alliance dilemma in which the former refers to the metaphor of chain-ganging versus buck-passing and the latter refers to abandonment versus entrapment (Snyder 1984). Both major powers and minor powers aligned with two superpowers tend not to be concerned about the motivation of unrelenting pursuit of power between the U.S. and the Soviet Union. Rather, they could remain on the sidelines and economize their defense effort as far as they maintained

memberships of the security umbrella provided by the two competing superpowers. Second, the certainty of threat and the inequality of capabilities between two superpowers and their respective allies increase alliance cohesion while reducing the fear of defection. In addition, a war or threat of war anywhere is now a concern to both of the superpowers if it may lead to significant gains or losses for either of them (Waltz 1979, 170-1). Thus, in the bipolar alliance system, the contribution of the minor allies for the common defense is of relatively small importance. Such an imbalanced division of labor between two superpowers and their allies and structuralized economic incentives of alliances seem to be identical to two properties of public good: non-excludability and non-rivalry (Olson and Zeckhauser 1966).

As Olson and Zeckhauser's theory predicts, the tendency to free-ride would be common among minor power allies whose contribution makes little, or no, difference to the provision of collective good. However, the causal relationship between alliances and members' defense spending tends to be crystallized by structural characteristics of the bipolar system rather than the nature of the collective action problem. In other words, the tendency to free ride would predominate among allies of superpowers, regardless of their relative capabilities. The net benefit of an alliance as a collective good is not necessarily greater to minor allies than major allies, as Olson and Zeckhauser (1966) predict. Like minor powers, major powers also can derive benefits from the bipolar alliance system, in comparison to multipolarity. For example, let us suppose the optimal defense spending of NATO allies during the Cold War. Although Great Britain and France as major powers have contributed more burden than the smaller allies like Luxemburg and Belgium, economic incentives of the NATO alliance have been maintained due to disproportionate

burden sharing provided by a superpower ally, the United States. Therefore, both major and minor power allies of the two superpowers have received benefits from the bipolar alliance system by reducing their defense spending, which is interpreted as bandwagoning behavior.

From the viewpoint of structural realists, bandwagoning behavior has been understood as a typical tendency of a small, weak state to gain security (Walt 1987) or a means for states to make temporary gains (Schweller 1994). The prevailing tendency to bandwagon during the Cold War, however, undercuts the central realist premise that balancing is the dominant tendency in alliance politics. To fill the gap between the theoretical explanation and the observed behavior of states, Walt (1987) introduces the balance of threat theory arguing that alignment decisions are rather driven by the imbalance of threat, not merely by the distribution of power. According to Walt (1987, 21-6), aggregated power is not only a unitary factor to provoke threat leading states to form alliances; additional sources of threat are geographic proximity, offensive power, and aggressive intentions. Walt contends that states tend to form alliances or increase internal efforts to reduce their vulnerability when there is an imbalance of threat, or when the perceived threat increases. In other words, insofar as the motivation of alliance is maintaining balance of threat in an anarchical world, the prevailing bandwagoning tendency is not critical to disrupting efficiency of the alliance system. Despite this theoretical justification of balancing mechanism, the two superpowers' respective alliances tend to contribute to decreasing the defense spending of allied members.

On the other hand, the effects of bandwagoning may vary in terms of contextual difference between the poles. First, the formation of the Soviet alliances was conducted

coercively at the Soviets' will compared to the voluntary acquiescence of American allies (Snyder 1990, 117). Snyder argues that one clear common threat was the Sino-Soviet bloc for American allies but the degree of threat perceived among East European allies varied (117). He also emphasizes that the willingness to take up the burden was observed for the U.S. but not the Soviet Union. For example, Reisinger (1983) contends that the free-riding principle fares poorly with respect to the Warsaw Pact members in the 1970s emphasizing that a political bargaining model performs better to account for the defense spending of the East European alliance. Rather, the NATO allies' tendency for "the exploitation of the great by the small" has been relatively stable over time (Olson and Zeckhauser 1966; Murdoch and Sandler 1982; Oneal and Elrod 1989; Sandler 2000). Thus, it is plausible to hypothesize that the U.S. allies' burden sharing behavior is likely to differ from that of the Warsaw Pact members.

Hypothesis B1: In bipolarity, both a major power and a minor power aligned with the U.S. are likely to decrease their defense spending.

Hypothesis B2: In bipolarity, both a major power and a minor power aligned with the Soviet Union are not likely to decrease their defense spending.

2. 3. 3. Unipolarity, Alliances, and Defense Spending

In the sense that threat is uncertain and cohesiveness of allied defense is weak, the alliance defense spending pattern in unipolarity appears to be similar to that in multipolarity. However, one fundamental difference is the lack of alliance flexibility that may be brought into different outcomes in terms of defense spending. The unipolar alliance system is preceded by a bipolar world fostering both major and minor power

partners (Monteiro 2012, 21). These alliances tend to carry on similar functions to those within a bipolar alliance system. At least temporarily, thus, "an emerging unipole is likely to continue to engage in international affairs, at least through a strategy of defensive dominance – as reflected in the metaphors of a global policemen or night watchman often used to describe U.S. strategy throughout the 1990s" (21). Then, incentives to bandwagon may still prevail among major and minor power allies of the U.S. in the early stage of unipolarity.

However, two key systemic features – the absence of structural threat and reduced alliance cohesion – tend to alter the structure of security benefits of alliances. First, a major function of bipolar alliance which bound it together is no longer the principal common interest with the loss of the public enemy. As the proposition of publicness of the collective good model is violated, benefit structures of alliances are likely to be transformed to a joint product that is a combination of pure public, impure public, and private good (Sandler and Forbes 1980; Sandler 2000; and Sandler and Hartley 2001). In principle, pure public good is unlikely to exist in unipolarity because there are no counterbalancing great powers (Wohlforth 1999; Monteiro 2012). Then, the fate of alliances is likely to be determined by the U.S. grand strategy and its security interests (Jung 2012a; Posen and Ross 1996). Second, reduced alliance cohesion may intensify the fear of abandonment among the unipole's major and minor allies, especially when they are facing potential aggressors and their dependence on alliances is greater. It is possible that the unipole's alliance strategy moves toward a selective engagement or disengagement strategy (Art 2003; Posen and Ross 1996; Monteiro 2012). There are two incentives that may drive the unipole to change its grand strategy from preponderance to

disengagement: 1) replenishing its power in preparation for contingencies; and 2) avoiding domestic opposition (Monteiro, 22). Under such circumstances, the unipole may take a passive strategy of alliance maintenance provoking great security concern among traditional allies.

An alternative way to avoid an excessive expenditure of military spending while maintaining its power preponderance is reshaping the burden sharing structure of alliances. This is not to say, the unipole will not allow its major and minor power allies to bandwagon. Rather, it means that the unipole would increase demand for alliance burden sharing on its military partners. It is presumable that the pressure of the unipole for allied cost sharing might be greater on major power allies than on its minor power allies. First, the minor power allies' contribution is not likely to lessen the burden of alliance significantly; likewise their contribution makes little change in a public good model. Second, bandwagoning behavior may endanger the destiny of lesser power allies when the unipole's alliance strategy is in conflict with its allies' national interests. Walt (2009, 108) argues that bandwagoning has been historically rare and has generally been confined to very weak and isolated states due to the simple reason that "the decision to bandwagon requires the weaker side to put its fate in the hands of a more powerful state whom it suspects of harboring hostile intentions". Therefore, the unipole's major power allies are likely to spend more on their national defense, as well as on the allied defense to secure alliance cohesion, than the previous bipolar world.

Hypothesis U1: In unipolarity, a major power aligned with the U.S is not likely to decrease its defense spending.

Hypothesis U2: In unipolarity, a minor power aligned with the U.S is less likely to decrease its defense spending than bipolarity.

CHAPTER III

TESTING SYSTEM POLARITIES AND ALLIANCE DEFENSE SPENDING

In this chapter, I present a large-n analysis empirically testing how allied members interact differently in response to systemic changes to security environments and the economic incentives of alliances. The relationship between system polarities and alliance burden sharing behavior is important to account for the dynamics of alliance politics. However, determinants of system polarities are hard to conceptualiz. Based upon neo-realist traditions, therefore, I operationalize three system polarities – multi-, bi-, and unipolar – in terms of the number of system leaders defining international system structure differently. It will also focus on burden sharing behavior of both major power and minor power allies of the system leaders to highlight the impact of system polarities on alliance politics.

The remainder of this chapter is organized as follows: Section 3. 1 outlines the research design presenting the variables to be tested in empirical models. Section 3. 2 provides the results of regression models with a discussion of the implications of a system-level analysis.

3. 1. Research Design

The units of analysis for this study are monadic state-years from 1885 to 2001. Although there are skeptical views about the validity of time-series cross-sectional (TSCS) analyses on defense spending (Sandler and Hartley 1995; Looney and Frederiksen 2000), the state-year unit analysis may reveal important implications about

some general effects of systemic polarities and alliance politics. First, the military spending pattern differs greatly across both space and time. TSCS data is "common in the analysis of data where repeated observations (often annual) are made on the same fixed political units (usually states or countries) (Beck 2001, 111). Since this study is interested in the structural effects of systemic polarities on the contexts of alliances and allied states' defense spending behavior, it is expected that TSCS estimators would provide the best reflection of alliance politics when the error terms are corrected temporarily and spatially. Second, this quantitative approach may contribute to filling the gap in the studies between alliance politics and defense spending. Despite the abundance of alliance studies, empirical research on defense spending has been limited to qualitative case studies, formal modeling with a small number of allies, or a specific type of alliance that meets both theoretical and methodological conditions of empirical models (i.e., NATO versus the Warsaw Pact, the Triple Entente versus the Triple Alliance). This project seeks to test the general validity of competing hypotheses across a range of data, time periods, and model specifications in terms of structural constraints and alliance behavior, as a comparative foreign policy study.

To create a sample of states and defense spending, the Correlates of War (COW) project data on system membership data, military expenditures (Singer and Small 1993), and Russett and Oneal's (2001) data for gross domestic product (GDP) are utilized. The time frame between 1885 to 2001 was chosen in terms of data accessibility. Russett and Oneal's GDP data begin in 1885 and end in 2001. In addition, Leeds's (2000) Alliance Treaty and Obligations and Provisions (ATOP) data are used to generate alliance variables. To form variables related to external threat, the COW Militarized Interstate

Dispute 3.0 data set (Jones, Bremer, and Singer 1996; Ghosn, Palmer, and Bremer 2004) are used. Overall, the data set is composed of 8481 observations covering 194 nation-states.

Following Beck and Katz (1995) and Beck (2001), an Ordinary Least Squares (OLS) regression with panel-corrected standard errors (PCSEs) is employed. OLS is optimal (best linear unbiased) for TSCS models if the errors are assumed to be generated in an uncomplicated (spherical) manner (Beck and Katz 1995, 636). The number of units analyzed in this project fluctuates from 36 to 194 and the time frame with each unit observed varies from 2 (e.g., Zanzibar and Tuvalu) to 186 (e.g., the U.S. and Great Britain). Thus, both the temporal and spatial properties of TSCS data make the use of OLS problematic allowing for temporally and spatially correlated errors and heteroscedasticity (Beck and Katz, 634). By using OLS with PCSEs, the OLS standard errors can be corrected and provide more accurate estimates of the variability of the OLS estimates of β (638). This model takes into account the contemporaneous correlation of the errors and eliminates any serial correlation of the errors before the panel-corrected standard errors are calculated (638). Also, in order to rule out temporal dynamics referring to serial correlations of errors of the TSCS data set, a lagged dependent variable is included (645).

3. 1. 1. Dependent Variable

The dependent variable is a degree of state defense spending. The most common index of defense spending is military expenditure as a proportion of the Gross Domestic Product (ME/ GDP) (Olson and Zeckhauser 1966; Reisinger 1982; Palmer 1990). This

index measures how much effort a state is making in attempts to increase its own defense (Palmer and Souchet 1994, 198). Although there have been some modifications (Oneal and Elrod 1989; Murdoch and Sandler 1982; 1984; Thies 1987), this variable has been widely used unaltered in research of alliances and defense spending since its introduction by Olson and Zeckhauser (1966). In the previous literature, the lack of economic data before the postwar period led some researchers to utilize proxy variables to measure the ratio of defense spending over the aggregated national capabilities, for example military personnel and military expenditures for defense effort, population, iron/ steel production, and energy consumption for the sum of national income (Goertz and Diehl 1986; Conybeare 1992; Thies 1987). In this project, Oneal and Russett's (2001) GDP data set covering the time period from 1885 to 2001 are employed to measure ME/ GDP with the data set of the COW project. It is expected that this data set of a "unified time span" has advantages over that of a "stratified epoch" (Goertz and Diehl 1986) in comparing structural constraints of different international systems and defense spending behavior.

Utilizing Olson and Zeckhauser's variable has two incentives to enable researchers to maintain theoretical consistency and to perform comparative analysis. First, in an alliance relation, a state's defense spending tends to be affected by the amount that its allies provide (Olson and Zeckhauser, 268). As a public good model assumes, the larger members tend to provide the larger amount of the collective good in an unequal group leading the smaller members to ride free because the latter's contribution would make little difference. For alliances, this means that the larger the nation, the more disproportionate the amount of total military cost it will bear under reasonable assumptions (Russett 1970; 95-6). Although other alliance level factors (e.g., diverse

types of military equipment and techniques, cross-country variations in marginal costs contribution, and a nation's valuation on alliance forces) may play an important role in varying degrees of allies' defense spending, such a simplified assumption can be utilized as a baseline to examine the causal relationship between alliances and defense spending. Second, this variable – a proportional measure of military expenditure on the basis of national product – can facilitate comparison across states and over time. This measure is not affected by the currency used or by general rates of inflation (Goldsmith 2003, 553). Because this project focuses systemic effects of different polarities on the alliance relationship and its defense spending pattern, this measure would provide meaningful implications with relevant empirical findings.

3. 1. 2. Independent variables

A number of variables can affect a state's level of military spending. The focus of this project is to examine the impact of alliances with great power states that play a dominant role in defining systemic polarities. In addition, a state's defense spending is influenced by the relative capabilities of alliance seekers. To fulfill a purposive goal of comparative analyses, the status of great powers is coded following the definition of different system polarities. Conceptually, all the major powers in multipolarity are considered as great powers in which one of them cannot have overwhelming capabilities. And the rest of the states are considered as minor powers. Thus, the number of pairs of alliance combination under multipolarity is three: great powers aligned with other great powers (GP-GP); minor powers aligned with great powers (mP-GP); and states not aligned with any of great powers (non-ally). During the bipolar system, two superpowers

– the U.S. and the Soviet Union – are considered as great powers generating five types of alliance formations: major powers aligned with the U.S. (MP-US); minor powers aligned with the U.S. (mP-US); major powers aligned with the S.U. (MP-SU); minor powers aligned with the S.U. (mP-SU); and states not aligned with superpowers (non-ally). In a unipolar world, only there exists only one great power, the U.S. that enjoys a preponderance of power and faces no competition (Wohlforth 1999; Monteiro 2012). Thus, comparable alliance pairs in unipolarity are three: major powers aligned with the U.S. (MP-US); minor powers aligned with the U.S. (mP-US); and states not aligned with the U.S. (non-ally). Table 3-1 demonstrates the list of great powers from 1816 to 2001. During the pre-1945 period, all the major powers are coded based upon the COW coding rule as a great-power ally when they ally with each other or ally with minor power states. From 1945 to 1989, only the United States and the Soviet Union are regarded as great-power allies following the definition of bipolarity. Finally, only the U.S. is coded as a great-power ally in the post-Cold War era from 1990 to 2001.

Using these key independent variables has some analytical advantages over traditional coding rules of the COW project. First, despite a fair degree of reliability on the coding rules of major powers in the COW project, the major power status is limited in reflecting practical influences of structural polarities on alliance politics. For example, during the Cold War period, the Big Fives – the United States, the Soviet Union, England, France, and China – occupying permanent seats on the UN Security Council equipped with nuclear capabilities are coded as major powers in spite of the dramatic gap

Table 3-1 List of Great Powers

System structure	State	Start	End
Multipolarity	Austria-Hungary	1816	1918
	Germany (Prussia)	1816	1918
		1928	1944
	Russia (USSR)	1816	1917
		1922	1944
	France	1816	1940
	England	1816	1944
	Italy	1860	1943
	Japan	1895	1944
	United States	1898	1944
Bipolarity	United States	1945	1989
	Russia (USSR)	1945	1989
Unipolarity	United States	1990	present

of relative strengths.[12] Moreover, the number of major powers increases in unipolarity up to seven by including two economic giants, Japan and Germany. If we consider all the major powers as great powers, then, any difference of alliance system is hardly to be found in terms of the changes in systemic polarities.

Second, the existence of multiple great powers in an alliance relation cannot present the reactivity of defense spending among states with different capabilities. For example, the premise of collective good model of nuclear deterrence is that all the U.S. allies have been beneficial from the nuclear protection provided by the sole superpower ally, the U.S. (Olson and Zeckhauser 1966; Palmer 1990). Although two other nuclear power allies (e.g., the United Kingdom and France) and some middle powers (e.g., West Germany and Italy) might have contributed marginal costs of nuclear deterrence, it is unthinkable to treat nuclear deterrence as a public good without considering the role of the U.S. as the unitary security provider. Thus, we can clarify the relationship of the security provider and its beneficiaries by distinguishing the status of the U.S. as the sole great power with other major powers.

The independent variable – $GPally_{t-1}$ – is a lagged dichotomous variable that is coded 1 if a state forms an alliance with great powers in the year of *t* during the multipolar system, and 0, otherwise. Although relative capabilities of allies are also an important variable representing degrees of asymmetry and the level of defense spending (Morrow 1991; Palmer and Souchet 1994), the status of great power is operationalized to be dichotomous. This is a theoretically better approach in examining the impact of system polarities and the behavioral changes of alliance defense spending. To specify the impact

[12] China is included in major powers after the Communist Revolution in 1949.

of two superpower allies during the Cold War era and beyond, two independent variables – *Ally with* US_{t-1} and *Ally with* SU_{t-1} – are generated. Another independent variable is $Alliance_{t-1}$ that is also coded dichotomously. To identify this variable, Leeds's (2000) Alliance Treaty and Obligations and Provisions (ATOP) data are used including all types of alliances. Although a variety of alliance types would be linked to the behavioral outcomes of alliances (Leeds 2003; Leeds, Long, and Mitchell 2000), this study highlights that systemic influences of polarities are likely more critical in determining causal relationship of alliances and defense spending patterns.

Through multiplication of these independent variables and a control variable – $Majorpower_t$ – six key independent variables are created: *Major ally with* GP_{t-1} $(GPally_{t-1} \times Majorpower_t)$; *Minor ally with* $GP_{t-1}(GPally_{t-1} \times Minorpower_{t-1})$; *Major ally with* US_{t-1} $(Ally\ with\ US_{t-1} \times Majorpower_t)$; *Minor ally with* US_{t-1} $(Ally\ with\ US_{t-1} \times Minorpower_t)$; *Major ally with* SU_{t-1} $(Ally\ with\ SU_{t-1} \times Majorpower_t)$; *Minor ally with* SU_{t-1} $(Ally\ with\ SU_{t-1} \times Minorpower_t)$. The effect of system polarities will be controlled by three binary variables: $Multipolar_t$; $Bipolar_t$; *and* $Unipolar_t$.

3. 1. 3. Control variables

Along with system-level factors, domestic-level variables have been considered as determinants of a state's defense spending. Although a generalized model about defense spending has been rare, previous research demonstrated that a state's defense spending is determined by the size of its economy and its growth rate, regime type, political stability, and social welfare policies, and so forth (Chan 1991; Minz 1989; Blomberg 1996; Goldsmith 2003). To control the impact of domestic economy, a lagged

variable of the per capita gross domestic product – $GDPPC_{t-1}$ (measured in 1996 constant U.S. dollars) – is employed. In regard to the economic effects on defense spending, there are competing arguments. For example, wealthier states tend to spend proportionally less on military affairs (Smith 1977; Inglehart 1990; Rasler and Thopson 1992). Others contend that economic decline is positively related to a rise in defense spending (Russett 1990; DeRouen 2000; Mintz and Ward 1989).

Domestic political institutions are expected to influence defense spending to a large extent. In particular, research has shown that a state under democratic control tends to spend less on its national defense (Eichenberg and Stoll 2003; Sprout and Sprout 1968; Russett and Oneal 2001; Goldsmith 2003). To generate a lagged democracy variable – $Democracy_{t-1}$, the Polity IV data set of the COW project are used (Marshall and Jaggers 2002).

All other things being equal, it is reasonable to expect that major powers – $Majorpower_t$ – are more likely to spend more on defense spending. Although there is no study of military expenditures emphasizing the major power status directly (Goldsmith 2003, 558), they are more likely to engage in international crises than others so that their proportion of defense spending is greater even during peaceful periods (Bremer 1980; Small and Singer 1982). In addition, major powers tend to have more allies than others leading them to spend more on defense spending to increase their credibility.

The impact of militarized interstate disputes (MIDs) and defense spending is also considered. In a recent study, Nordaus, Oneal, and Russett (2009) show that fatalities of militarized interstate disputes (MIDs) as an index of external threat are strongly associated not only with a short-term variance of defense spending but also with its long-

term trend. Also, it is plausible to expect that military spending behavior would vary whether a state is a MID initiator or target. Thus, two binary variables – lagged MID_initiate (MID_Ini_{t-1}) and lagged MID_target (MID_Tar_{t-1}) – are added.

The base model is as follows:

$$ME/\ GDP_{\ t} = \beta_1\ ME/\ GDP_{t-1} + \beta_2 GDP\ per\ Capita_{t-1} + \beta_3 Democracy_{\ t-1} + \beta_4 Major\ Power_{\ t} + \beta_5 MIDs\_initiate_{\ t-1} + \beta_6 MIDs\_targeted_{t-1} + error\ term_{\ t}$$

Next, while utilizing various interaction terms, the impact of great power allies and the behavioral characteristics of alliance defense spending are tested under the three polarity conditions. The full model is as follows:

1) Multipolarity

$$ME/\ GDP_{\ t} = \beta_1\ Major\ ally\ with\ GP_{t-1} + \beta_2\ Minor\ ally\ with\ GP_{t-1} + \beta_3 Alliance_{t-1} + \beta_4\ ME/\ GDP_{t-1} + \beta_5 GDPPC_{t-1} + \beta_6 Democracy_{\ t-1} + \beta_7 Major\ Power_{\ t} + \beta_8 MIDs\_initiate_{\ t-1} + \beta_9 MIDs\_targeted_{\ t-1} + error\ term_t$$

where the omitted category is both major and minor powers not aligned with any of the great powers

2) Bipolarity

$$ME/\ GDP_{\ t} = \beta_1\ Major\ ally\ with\ US_{t-1} + \beta_2\ Minor\ ally\ with\ US_{t-1} + \beta_3\ Major\ ally\ with\ SU_{t-1} + \beta_4\ Minor\ ally\ with\ SU_{t-1} + \beta_5 Alliance_{t-1} + \beta_6\ ME/\ GDP_{t-1} + \beta_7 GDPPC_{t-1} + \beta_8 Democracy_{\ t-1} + \beta_9 Major\ Power_{\ t} + \beta_{10} MIDs\_initiate_{\ t-1} + \beta_{11} MIDs\_targeted_{\ t-1} + error\ term_t$$

where the omitted category is both major and minor powers not aligned with either the U.S. or the S.U.

3) Unipolarity

$$ME/\ GDP_{\ t} = \beta_1\ Major\ ally\ with\ US_{t-1} + \beta_2\ Minor\ ally\ with\ US_{t-1} + \beta_3 Alliance_{t-1} + \beta_4\ ME/\ GDP_{t-1} + \beta_5 GDP\ per\ Capita_{t-1} + \beta_6 Democracy_{\ t-1} + \beta_7 Major\ Power_{\ t} + \beta_8 MIDs\_initiate_{\ t-1} + \beta_9 MIDs\_targeted_{\ t-1} + error\ term_t$$

where the omitted category is both major and minor powers not aligned with the U.S.

3. 2. Empirical Findings

Table 3-2 presents the results for the four models. As shown in the base model, almost all the systemic variables hypothesized are generally relevant to the defense sending pattern. The coefficients of various control variables buttress the robustness of empirical testing. First, a lagged variable of GDP per capita, $GDPPC_{t-1}$, is statistically supported but its coefficient is 0.000 indicating that economic growth is not closely associated with a state's defense effort. Also, this result is consistent with previous findings that defense burden is not sensitive to economic conditions (Benoit 1973, 23). Second, a lagged democracy variable, $Democracy_{t-1}$, is supportive to previous findings that the states under democratic control tend to spend less on defense spending than other types of regimes (Oneal and Russett 1997; Russett and Oneal 2001; Reiter and Stam 2002). Third, as expected, the overall level of defense spending of major powers, $Majorpower_t$, is higher than that of minor power states (Bremer 1980; Small and Singer 1982). Finally, regional conflicts measured in numbers of MIDs, MID_Ini_{t-1} and MID_Tar_{t-1}, strongly support that the existence of regional conflicts is positively related to defense efforts (Nordaus, Oneal and Russett 2009). This result indicates that regional conflict plays a significant role in increasing the focal state's defense spending regardless of whether it is the initiator or target.

Model 1 tests the effect of multipolar system and great power alliances. In order to avoid the collinearity problem, states not allied with any of great powers are used as a reference category. The result demonstrates that the either major powers allied with other major power states or minor power states with major power allies are not statistically related to the level of their defense effort indicating that forming an alliance with great

Table 3-2 System Polarities and the Correlates of Defense Spending

VARIABLES	Base model	multipolar	bipolar	unipolar
Major ally with GP_{t-1}		-0.192		
		(0.221)		
Minor ally with GP_{t-1}		0.106		
		(0.144)		
Not allied with GP		omitted		
Major ally with US_{t-1}			-1.336***	
			(0.380)	
Minor ally with US_{t-1}			0.481***	
			(0.100)	
Major ally with SU_{t-1}			1.286***	
			(0.461)	
Minor ally with SU_{t-1}			0.673**	
			(0.300)	
Not allied with superpower			omitted	
Major ally with US_{t-1}				0.412
				(0.401)
Minor ally with US_{t-1}				-0.384*
				(0.200)
Not allied with US				omitted
ME/GDP_{t-1}	0.748***	0.819***	0.724***	0.706***
	(0.042)	(0.106)	(0.059)	(0.136)
$GDPPC_{t-1}$	0.000*	0.000**	0.000**	0.000
	(9.73e-06)	(0.000)	(0.000)	(0.000)
$Alliance_{t-1}$		0.138	0.452***	0.319
		(0.131)	(0.152)	(0.197)
$Democracy_{t-1}$	-0.366***	-0.165**	-0.296***	-0.255
	(0.071)	(0.057)	(0.072)	(0.223)
$Majorpower_{t}$	0.313**	0.267	1.960***	-0.495
	(0.121)	(0.180)	(0.572)	(0.434)
MID_Ini_{t-1}	0.140***	0.039	0.026	0.096
	(0.046)	(0.061)	(0.057)	(0.145)
MID_Tar_{t-1}	0.190***	0.062	0.330**	0.059
	(0.061)	(0.043)	(0.105)	(0.106)

Table 3-2 – continued

VARIABLES	Base model	multipolar	bipolar	unipolar
Constant	0.553***	0.123	0.437***	0.357**
	(0.075)	(0.090)	(0.137)	(0.160)
Observations	8,481	1,552	4,954	1,975
Number of ccode	194	65	162	191

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

powers has no impact on defense spending in multipolarity. During this period, alliances are also not associated with a degree of state military spending. As hypothesized, ambivalent frontiers between friends and foes might led them to be reluctant to adjust levels of defense spending regardless of their power status (major versus minor power) and militarized disputes (MID initiate and MID targeted). Rather, it shows that opportunistic behavior prevailed among allies through passing the buck to their partners but not sacrificing their resources to enhance allied defense (Waltz 1979; Christenson and Snyder 1990; Snyder 1997). These findings indicate that Hypothesis M1 and M2 are empirically supported.

The effects of alliance appear to influence other systemic factors related to a degrees of state defense spending. The variable $Democracy_{t-1}$ is still negative and significant (-0.167) indicating that democracies tend to spend less on their defense spending in comparison to other regime types such as monarchies and autocracies. Interestingly, $Majorpower_t$ is positive but not significant in a multipolar system. As predicted, a strong tendency to pass the buck among multipolar alliances – $Alliance_{t-1}$ – would offset causal relationships between relative capabilities and defense spending. In addition, two measurements of regional conflicts – *the number of MID initiated and that of MID targeted* – are statistically not significant indirectly reflecting systemic effects of multipolarity where flexibility of alliance choice cancels out the explanatory power of regional conflicts on national defense spending.

To specify the effects of characteristics two superpowers and alliance defense spending, Model 2 tests behaviors of the U.S. alliances including NATO and Asian-Pacific allies and the Soviet allies such as the Warsaw Pact members and others in the

Middle East and Africa during the Cold War. First, the correlation coefficient of *Major ally with* US_{t-1} (-1.336) is negative and significant, indicating that two major power allies of the NATO alliance, Great Britain and France, could reduce their defense spending compared to states not aligned with either the U.S. or the Soviet Union. Also, the defense spending of the U.S. minor allies during the Cold War, *Minor ally with* US_{t-1}, is negative and significant in statistical terms (-0.481). These empirical findings buttress the Hypothesis B1 that both major power and minor power allies of the U.S. could derive security benefits from the protection of their superpower ally. When examining the effect of the Soviet alliances' on defense spending, only one major power ally of the Soviet Union, communist China, could reduce its defense spending by forming an alliance during the same period (-1.286). Despite an exaggeration of the diplomatic relationship and the increased tension between the Soviet Union and China in the late 1960s, China was the only beneficiary of the Soviet's alliance. Meanwhile, *Minor ally with* SU_{t-1} variable (0.673) indicates that the smaller allies of the Soviet spent relatively more on their national defense than the states not allied with superpowers, buttressing Reisinger's (1987) finding that a collective good theory is not applicable to the Warsaw Pact alliances. Then, the Hypothesis B2 is partially supported. Moreover, these findings contradict Olson and Zeckhauser's prediction that the greater the allies' capabilities, more substantial their contribution would be to collective goods. Instead, alliances tend to increase their defense spending for the Soviets' minor allies during the Cold War, implying that the exploitation of the small by the larger was dominant among the communist allies.

The correlation coefficients of the economic variables – ME/ GDP_{t-1} (0.724) and $GDPPC_{t-1}$ (0.000) – consistently demonstrate that the effects of changes in economic capabilities are not critical to defense spending. $Alliance_{t-1}$ variable representing the overall impact of alliances not including superpower allies is positive and significant (0.452). This result shows that non-great power alliances are positively related to member states' defense effort. The correlation of $Majorpower_t$ variable (1.960) presents that two superpowers consistently spend more on defense spending during the Cold War, seemingly offsetting their major power allies' bandwagoning tendencies. In contrast to the number of MID initiation variable which is not significant, the number of MID targeted, MID_Tar_{t-1}, is positive and significant (0.330). This result demonstrates that the impact of regional conflicts on defense spending is significant when the purposive goal is defensive but not offensive.

Finally, the effects of unipolarity and alliance defense spending are tested in Model 3. The result shows that the correlation coefficient of the US Major power allies is not significant indicating that they are not beneficiaries of bandwagoning any longer under unipolarity. This finding contradicts Wohlforth's (1999) prediction that systemic stability of unipolarity results from the bandwagoning tendency of the second-tier states to the unipole's primacy. Also, it is more likely that the sole superpower is not providing collective security indiscriminately (Sandler and Murdoch 2000). Although the U.S. minor allies are still deriving benefits from the allied defense, it is important to note that the marginal effect of the U.S. alliance in unipolarity (-0.384) is not as strong as that of bipolarity (-0.481) than non-US allies. Then, it appears that unprecedented system shift to

unipolarity has transformed the structure of alliance cost sharing to a large extent. In short, the Hypothesis U1 and U2 are empirically supported.

Other control variables indicate that systemic effects on unipolar alliances are similar to those of multipolar systems. First, there is no variation in economic factors in the unipolar system. Second, $Alliance_{t-1}$ variable is positive but not significant as in the multipolar alliances. However, the underlying condition of a weakening causal relationship of alliances and defense spending in unipolarity might be different from the relationship in a multipolar world. In particular, this result stems from systemic features of unipolarity where non-US alliances are unlikely to produce security benefits. $Democracy_{t-1}$ variable is also insignificant indicating that ideological affinity becomes less important in the unipolar alliance system, or an increase in numbers of democracies in the post-Cold War era tends to cancel out the causal relationship of regime type and defense spending. $Majorpower_t$ variable is negative but not significant in statistical terms, supporting systemic characteristics of unipolarity in which no major powers, or their coalition, can possibly challenge the unipole's primacy (Wohlforth 1999). The intensities of regional conflicts measured by the number of MID initiation and MID targeted - MID_Ini_{t-1} and MID_Tar_{t-1} – are not important to determine degrees of defense spending. These results are inconsistent with other empirical findings that regional conflicts play a critical role in adjusting degrees of defense spending (Nordhaus, Oneal, and Russett 2009). To some extent, this finding can be explained by the enlarged role of the unipole as "global policemen", an increase in the numbers of UN peacekeeping missions, or enhanced interdependence in the post-Cold War era (Murdoch and Sandler 1991; Sandler 2000).

In sum, there are some important findings that are noteworthy. First, structural features of different polarities are an important variable in determining the levels of defense effort. Systemic effects demonstrate that states tend to increase their defense effort when the external threat is structural and clear (i.e., bipolarity) while they are not likely to spend on national defense when the threat is non-structural and underspecified (i.e., unipolarity). Moreover, the ambiguity of friends and foes in multipolarity may weaken the causal relationship of alliances and the level of defense spending. Second, the impact of alliance with great powers is not fixed but sensitive to changes in system structures. As predicted, alliance is, in general, positively associated with defense spending, and minor powers allied with great powers tend to enjoy security benefits at reduced costs. However, systemic polarities may restructure alliance functions, and in so doing, they also shift alliance security benefits. Third, the bipolar alliance system demonstrates that the superpowers' characteristics play a decisive role in determining the nature of security good that an alliance provides. This finding implies that a collective good problem of alliance is not universal in terms of the size of memberships and the relative capabilities of member states. As shown in the Warsaw Pact allies, hegemonic domination within alliance relations would increase the defense burden of the clients.

CHAPTER IV

A THEORY DIFFERENTIATING ALLIANCE COST SHARING WITHIN UNIPOLARITY

In the previous chapter I argued that international system polarities play an important role in determining the causal relationship between alliances and defense spending behavior among allied members. In particular, behavioral characteristics of the unipolar alliance system (measured in cost sharing) represent changed the world order and variations in alliance politics with respect to alliance choice, cohesion, and credibility. In contrast to previous bipolar world where alliances were a systemic function of balancing against structural threat, however, the core of unipolar alliance politics consists of the interactions between the unipole which is the only one possessing global interest and capable of exerting its power to secure interest, and "many juridically equal nation-states" (Jervis 2009, 190) that may necessitate the unipole's support, or its acquiescence, for their ally-specific interest. Under unipolarity, alliances are also useful tools for the unipole to maintain its power preponderance since they might legitimize the unipole's power projection in an anarchical world (Monteiro 2012, 13).

In this chapter, I will present a theory differentiating alliance cost sharing within unipolarity. In the absence of structural threat that standardizes alliance mechanism as balance of power, or balance of threat, I argue that the necessity of alliance to achieve ally-specific interest would play a significant role in accounting for alliance politics. More specifically, alliances in unipolarity are a joint product of each ally's specific security interest that may differentiate the cost and benefit structure of alliances and burden sharing behavior.

4. 1. Alliance Cost Sharing in Unipolarity

A sudden end of the Cold War brought into existence important changes in alliance politics. First, the economic incentives of the U.S. alliance networks from which the U.S. allies benefited during the Cold War are no longer applicable in cases of the U.S. major power partners. The test result in a large-n data analysis demonstrates that the U.S. alliance relationship in unipolarity has no significant effect on the defense spending of its major power ally. To some extent, such a change can be explained by an overall decrease in defense spending of major power countries in the post-Cold War era. As shown in Table 3, the U.S. defense spending was cut down to approximately one half of that in the late 1980s (from 6.0% to 3.1%). Great Britain, France, and Germany, three European major power allies, also decreased their defense spending but the gap of the defense spending with the U.S. narrowed down to less than 1.5 percent in 2000. On the contrary, Japan as the sole U.S. major ally in the Asia-Pacific region consistently spent one percentage of GDP for its defense effort implying that Japan increased its share of defense burden in relative terms.

To compare relative burden sharing between the U.S. and its major power allies during the Cold War and beyond, Figure 4-1 presents an index of burden sharing fairness among the U.S. key allies from 1950 to 2000. Following Oneal and Elrod (1989), the allies' ratio of military expenditures to GDP is divided by the combined defense burden with the U.S., the allies' total defense expenditures as a fraction of combined GDP with the U.S.[13] This index is equivalent to dividing each ally's share of total defense expenditures by its share of total GDP, creating an index of relative burden sharing that

[13] For example, the formula of Oneal index for Japan is as follows:

Table 4-1 Defense spending as % of GDP, US Major Allies

Country	1985-9	1990	1995	2000	2005
United States	6.0	5.5	3.8	3.1	4.1
France	3.8	3.5	3.0	2.5	2.5
United Kingdom	4.5	4.0	3.0	2.5	2.5
Italy	2.3	2.2	1.7	2.0	1.9
Germany	3.0	2.8	1.6	1.5	1.4
Japan	1.0	1.0	1.0	1.0	1.0
Korea, Republic of	4.5	4.3	3.0	2.5	2.3

Source: World Military Expenditures and Arms Transfers, U.S. Arms Control and Disarmament Agency, Washington D.C.

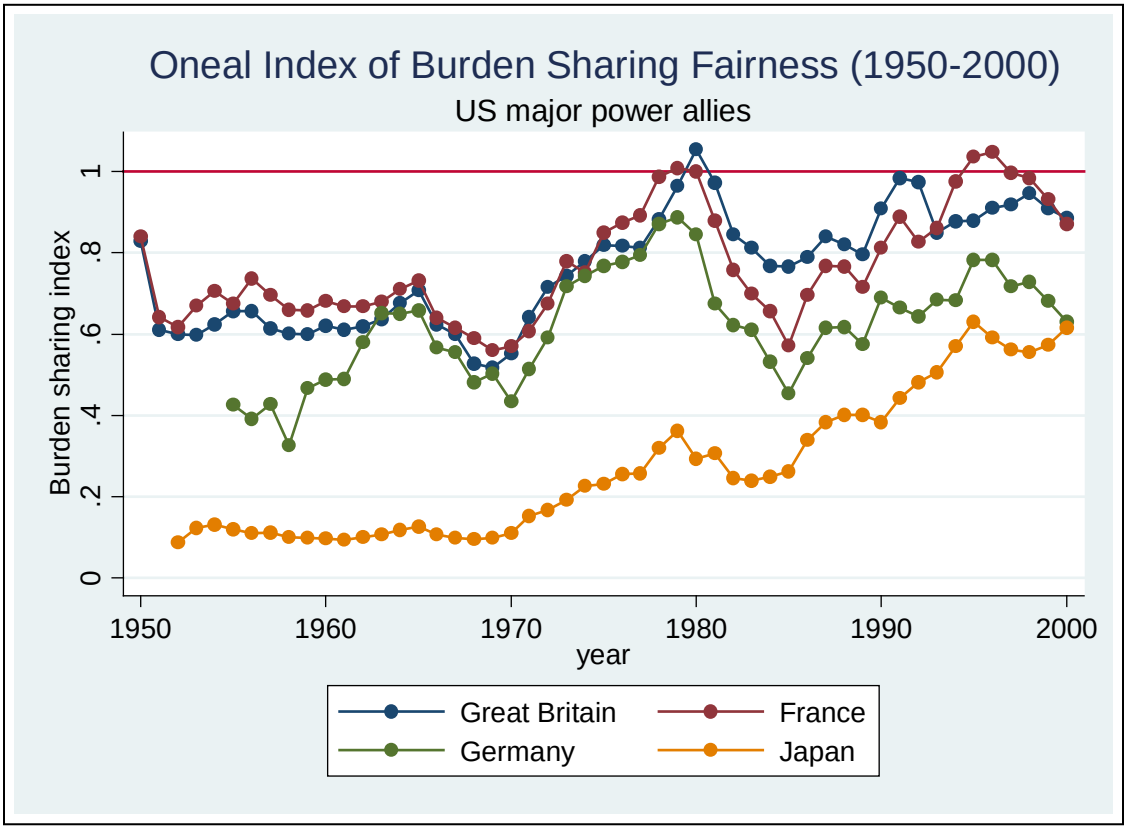
$$US\ ME\ share = \{ME_t^{US}/(ME_t^{US} + ME_t^{JPN})/GDP_t^{US}/(GDP_t^{US} + GDP_t^{JPN})\} \text{ --------- (1)}$$

$$Japan\ ME\ share = \{ME_t^{JPN}/(ME_t^{US} + ME_t^{JPN})/GDP_t^{JPN}/(GDP_t^{US} + GDP_t^{JPN})\} \text{ -- (2)}$$

Oneal index^{JPN} = Japan ME share/ average [US ME share, Japan ME share] ---------- (3)

where $0 \leq Oneal\ indexJPN \leq 2$

Figure 4-1 U.S. Major Power Allies' Burden Sharing Fairness (1950-2000)



enables researchers to compare changes in burden-sharing patterns over time (Oneal and Elrod 1989). In the index range from 0 to 2, 1 indicates a perfect "fairness" of burden sharing between the U.S. and its allies, the values less than 1 can be interpreted as degrees of free-riding and the values over 1 indicate an excessive contribution to alliance burden sharing. This figure shows that three U.S. major power allies of the NATO alliance demonstrate similar behavior patterns of burden sharing as the U.S., despite some variations. However, Japan did not follow this pattern; it gradually increased its contribution to burden sharing from the 1970s showing rapid growth in the aftermath of the Cold War. Moreover, the variations in burden sharing behavior among the U.S. major power allies appeared to become greater in the post-Cold War period. While Japan's burden sharing is stable and gradually increasing, the European major allies' burden sharing fluctuates and is less predictable.

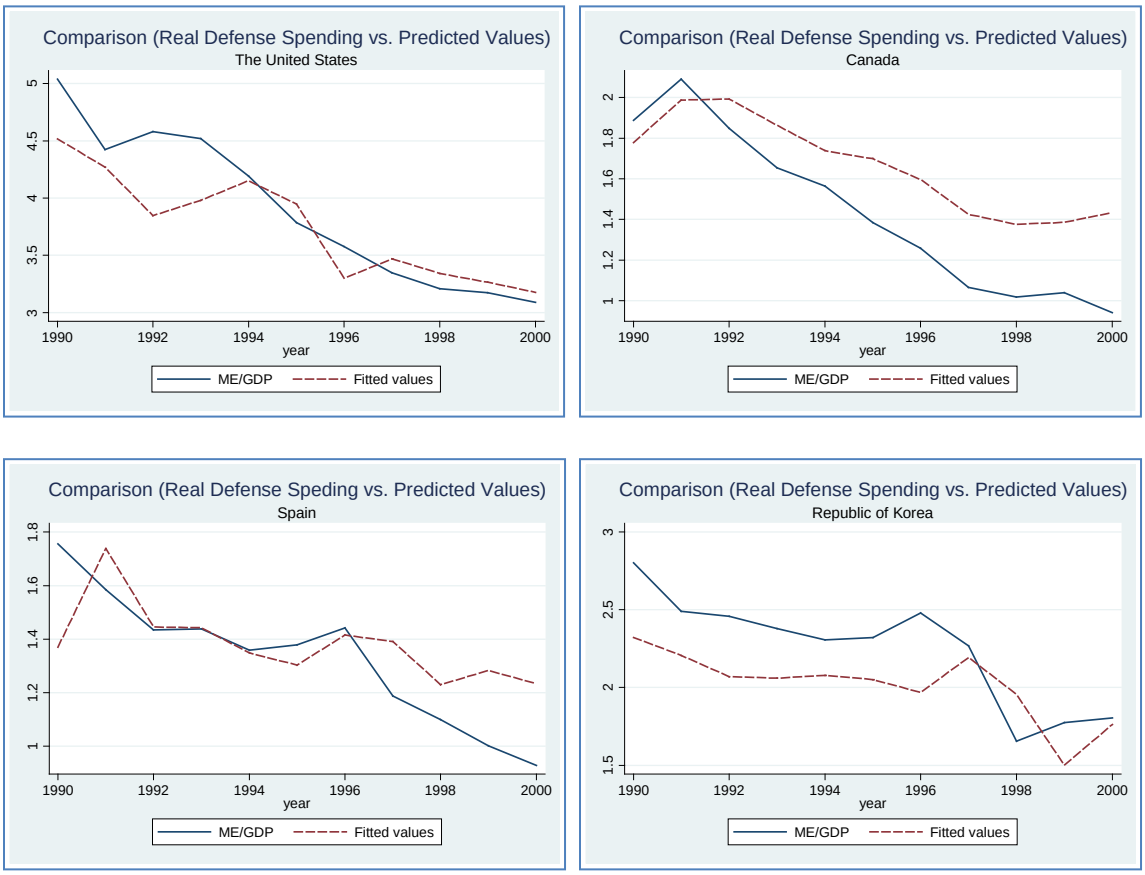
Second, changes in burden sharing pattern are also observable among the U.S. minor power allies. The empirical test result of the U.S. alliance and its minor allies' defense spending demonstrated that they still tend to bandwagon with their superpower ally while saving their own money on defense spending. However, in comparison to the previous bipolar system, the statistical inference of the U.S. alliance is not strong in terms of reduced coefficient correlations and significance level. While the coefficient of the variable, *minor ally with US*, in model 2 is -0.481 and significant at 0.01 level, the coefficient of the same variable in model 3 is -0.384 and significant at 0.1 level. In order to examine variations in burden sharing among the U.S. minor allies in the post-Cold War, predicted probabilities of the U.S. allies' defense spending are measured following Model 3. As shown in Figure 3, the U.S. spent more on its defense spending than the model

prediction in the first half of the 1990s but it decreased its degree of defense effort in the second half compared to predicted values. Canada as a NATO ally in the American region spent more on its national defense in the beginning of the 1990s but it decreased its level of defense effort drastically after 1992. Spain, a middle power NATO ally in Europe, showed a similar pattern of defense spending with the U.S. by decreasing its defense effort in late of 1990s. In contrast, the ROK spent substantially more on its national defense than predicted values during the 1990s, although the impact of the *Asian Financial Crisis* in 1997 and 1998 temporarily influenced the ROK's defense spending.

Then, how do we explain observed changes in alliance burden sharing in the post-Cold War period? What motivated the U.S. allies to take different paths in response to the shift of the international system to a unipolar world and the demands of restructuring alliance burden sharing? It appears difficult to discern differences of alliance functions and defense spending behavior in the unipolar system in a system-level analysis. First, the variability of burden sharing becomes greater across alliances in different regional contexts, as well as ally-specific relationships with the U.S. within an alliance, in the post-Cold War era. As seen in Table 4-1, while the U.S. abruptly increased its defense spending after the 2003 *Iraqi War* up to 4.1 percent in 2005, its four European major power allies did not respond to the U.S. defense effort and rather Italy and Germany slightly decreased their defense spending. Figure 4-1 also shows that the burden sharing effort of the U.S. minor allies in different regions is diversified in the post-Cold War period.

Second, increasing demands for international cooperation in preserving global security brought greater complexity in the debate of burden sharing. With the end of the

Figure 4-2 Comparison of the U.S. and its Allies' Real Defense Spending and Predicted Values (1990-2000)



Cold War, for example, the UN peacekeeping operations were expanded in numbers and the scope of interventions. Since UN peacekeeping operations were initiated in 1948, approximately 80% (52 out of 66) of the UN missions have been in operation since 1998.[14] After its first major peace-support operation in the Balkans in the early 1990s, over 140,000 military personnel are now engaged in NATO missions beyond the European continent covering Afghanistan, Kosovo, the Mediterranean, off the Horn of Africa and Somalia.[15] As a result, multidimensional indicators of burden sharing were introduced to measure allied contribution to common defense in the aftermath of the Cold War. According to the U.S. Department of Defense's (2004) annual report on *Statistical Compendium on Allied Contribution to the Common Defense* (SCACCD), an ally's contribution is expressed as a share of the total contributions of all allies. Based upon an ally's *ability* to contribute that is measured in the share of total GDP and total labor force, its defense spending, multinational peace support operations, foreign assistance, and the Host Nation Support (HNS) are adopted as major indicators of burden sharing.

Third, the U.S. has played a more active role in preventing and resolving international disputes through maintaining its military presence globally, as well as through initiating ad-hoc coalitions with like-minded partners in cases of international conflicts. Officially, over 190,000 troops and 115,000 civilian employees are stationed in 909 military facilities in 46 countries and territories. The U.S. military owns or rents 795,000 acres of land, and 26,000 buildings and structures valued at $146 billion (quoted in Lutz 2009, 1). In addition to cooperatively sharing the maintenance costs of the U.S.

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[14] See http://www.un.org/en/peacekeeping/documents/backgroundnote.pdf

[15] Visit http://www.nato.int/cps/en/natolive/topics_52060.htm

military bases with hosting countries, recent U.S. redeployment plan of military bases, so called *2004 Global Defense Posture Review*, increased the budget that would be required establish a network of 'deployment bases' or 'forward operating bases' both for the U.S. and for the hosting countries (Lutz, 18). After the Iraqi invasion of Kuwait in 1990, the first post-Cold War grand coalition under the name of the *Operation Desert Storm coalition* was formed with the initiative of the U.S. and the support of six key contributors: Britain, Egypt, France, Germany, Japan, and the U.S. (Bennett et al. 1994). In 2003, the *Operation Iraqi Freedom* coalition was comprised of 40 countries providing a variety of support, including logistical and intelligence support, fly-over rights, or humanitarian and reconstruction aid (Baltrusaitis 2008).[16] These two cases demonstrate that the sole superpower prefers ad hoc coalitions, which increase its freedom of actions and facilitate military and financial mobilization with the support of both allied and non-allied partners. As a result, the U.S. assessment of military budget and its share with allied partners are an emerging issue in the post-Cold War period.

Fourth, limited accessibility to new, more nuanced empirical data on burden sharing prevents researchers from conducting a large-n analysis at the alliance level. The burden sharing literature is lopsided in examining the NATO alliance during the Cold War and beyond. For other U.S. alliances in different regions, these new multidimensional measures are neither established nor accessible, except a traditional index of burden sharing introduced by Olson and Zeckhauser (1966). For example, the U.S. DoD's SCACCD provides cost sharing information for about 27 U.S. allies and non-

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[16] Also, see George W. Bush, *President Discusses Beginning of Operation Iraqi Freedom* (The White House, 2003[cited September 17 2007]); available from http://www.whitehouse.gov/news/releases/2003/03/20030322.html.

allies where the U.S. troops were stationed from 1995 to 2004. Indeed, the lack of systematic data for all alliance partners makes a comprehensive analysis of the unipolar alliance system less feasible. To fill this gap, an alternative analytical tool is required.

In the following sections, I theorize about ally-specific contexts that contribute to enhancing understanding of alliance burden sharing in a unipolar world. To this purpose, the post-Cold War literature will be briefly examined focusing on three questions: is the post-Cold War alliance system a public good?; what are competing views on the fairness of allied cost sharing between the unipole and its allies?; and how do we understand recent consensus-based, but not alliance-based, burden sharing in cases of ad hoc coalitions? Then, I will demonstrate that increasing complexity of alliance burden sharing results from structural outcomes of the unipolar system. As argued in the previous chapters, two systemic factors of nonstructural threat and extraordinary imbalance of power lowered alliance cohesion and the changed security incentives of alliances. From the unipole's standpoint, alliances are operated by necessity based on shared interests with a specific ally and its own private interest. If an alliance is less supportive of the initiative of the unipole in a certain type of militarized operation, the unipole may seek alternative partners with whom to exploit the spoils of victory. From the minor allies' positions, the increased demand of alliance costs in unipolarity would have different effects on their responsiveness in terms of the ally-specific security environments and the necessity of the U.S. support for its security. In other words, the greater a state's needs for alliances, the more it contributes to allied burden sharing based on expected future benefits of the allied support.

4. 2. Research Trend of Alliance Burden Sharing in the Post-Cold War Era

A comprehensive study of cost-sharing behavior of the post-Cold War alliance is done by Sandler and his colleagues although its scope is limited to NATO alliance (Hartley and Sandler 1999; Sandler and Murdoch 2000; Sandler and Hartley 2001). First, one critical finding of NATO burden sharing in the 1990s is that there is no evidence of a collective good problem where the large allies shoulder the defense burdens for the small allies. According to Sandler and Murdoch (2000), the causal scheme that produced such a behavioral change can be explained as follows:

> The end of the Cold War → the subsequent dissolution of the Warsaw Pact → the immediate response of NATO major allies' downsizing their defense effort to take advantage of a peace dividend → temporary shift of defense burden to the small allies → demise of free-riding tendency among the small (Sandler and Murdoch, 306).

In addition, the NATO allies' reluctance of intervening in regional conflicts such as Bosnia in 1995 and Kosovo in 1999 and sharing the additional military burden decreased the publicness of NATO collective defense (306-7). In short, a systematic impact reshaped the NATO allies' capacity of burden sharing and their expected security benefits leading to the finding of "no exploitation of the large by the small during the post-Cold War period" (312).

Nonetheless, Sandler and his colleagues contend that the publicness of the NATO defense system would be recovered in the future through tightening alliance links, redefining NATO's role and underpinning military doctrine, and reducing the match between benefits received and defense burdens. First, NATO's enlarged missions of peacekeeping and crisis-management activities provide an increased measure of world

stability and security that benefits all countries so that benefits are non-excludable and non-rival (Khanna, Sandler, and Shimizu 1998; Sandler 2000; Sander and Murdoch 2000). Second, four major power allies – the U.S., the U.K, France and Germany – made sizeable investments in their power-projecting capability that may increase chances of free-riding among minor allies in times of crises (Sandler and Hartley 1999; Sandler and Murdoch 2000). Third, R&D breakthroughs associated with the revolution in military technologies would provide non-rival and non-excludable benefits for the small allies (Hartley 1997). However, it appears that such hypothesized changes have not yet been realized.

Second, as an alternative public good model, Boyer (1989) developed a model of multiple public goods by broadening the scope of burden sharing into multiple issue areas. Boyer argues that allied members are specialized in the production of various public goods (e.g., diplomatic, economic, or military) for which they possess comparative advantages. For example, the U.S. tends to contribute military forces, while West Germany makes more contributions for economic aid in the NATO alliance due to trade benefits of different public goods. According to this model which applies the Ricardian theory of international trade to military alliances, it is not necessarily that the security benefits of an alliance as a public good are suboptimal, and the NATO allies' free-riding tendency on American defense efforts is inevitable. Rather, the existence of burden sharing across issue areas among NATO allies indicates that the security provision of alliance is more likely to be optimal when allied members are specialized in producing various dimensions of security goods.

With similar logic, Charlmers (2002) introduces a theory of "division of labor", in which states contribute to international security according to their own particular strengths. Charlmers (2002) points out that current burden-sharing debates are mainly due to a perception gap between the U.S. and European allies: for Europeans, the burden-sharing is increasingly multi-dimensional; for the U.S., the issue is still seen in predominantly military terms. Although the U.S. is the largest contributor to sustaining the military strength of the NATO alliance, European countries contribute three times as much as the U.S. to the Third World aid and pay almost twice as much into the UN budget (569). Chalmers also argues that a new military function of NATO shifted from traditional regional defense to expeditionary warfare during the 1990s and a proportional change in the NATO allies' defense burden facilitated a division of labor between the U.S. and European allies but did not decrease the latter's share of the burden.

Third, an emerging trend of post-Cold War burden sharing is, so called, *ad hoc coalitions* (Bennett, Lepgold, and Unger 1994; Baltrusaitis 2008). According to Bennett et al. (1994), the U.S.-led military coalitions may reflect alliance burden sharing in the post-Cold War period characterized by "the system of flexibility" (74). Through coalition building, the U.S. was able to exploit uncertainty in the international system to encourage both allied and non-allied states to participate in the first Gulf War burden sharing. Also, the U.S.'s apprehension about free-riding was relieved by offering a series of incentives and disincentives for the coalition participants leading them to increase their contribution with the expectation of current and future support of the U.S. as needed. In particular, Bennett et al. (1994) argue that a state's decision of burden sharing on ad hoc coalitions is not determined merely by external factors: collective action, balance of threat, and

alliance dependence; rather internally driven factors of leaders' perceptions, state autonomy and domestic politics play a significant role in the post-Cold War period. Although the degree of threat posed by a potential adversary might be the most important factor motivating a state to share burdens, an integrated model of systemic and state-level variables would provide a more accurate picture of how a state's decision of burden sharing is made in a unipolar world (73).

In sum, burden sharing literature in the post-Cold War system is summarized by the loss of publicness in the NATO collective defense system, increasing complexity on the concept of burden sharing fairness due to the introduction of alternative logics and multidimensional indicators, and the emergence of ad hoc coalitions as a new type of alliance burden sharing. However, it appears that a deep cleavage on burden sharing between the U.S. and its Atlantic allies is an important systemic factor in accounting for the variations in burden sharing literature and the burden sharing pattern of the post-Cold War alliances. Since the late 1980s, the U.S. has alleged that it has carried an 'unfair' amount of alliance burden (Sandler and Murdoch, 299). The European allies have countered that these charges of under contribution are imposed improperly by pointing out that much of the U.S. defense spending includes non-European concerns and by devising alternative burden sharing measures emphasizing their contributions in a better light (299). For example, the U.S. DoD addresses an ally's defense burden as a share of GDP that would be at least 2% or above, while European allies highlight their contribution to the U.N. peacekeeping, NATO infrastructure, and Overseas Development Assistants (ODAs) as measures of burden sharing fairness (Sandler and Murdoch 2000; Shimizu and Sandler 2002; Chalrmers 2002; Hallams and Schreer 2012). And, such

discord on burden sharing has led the U.S. to pay more attention to the efficiency of ad hoc coalitions and a "capabilities-based" alliance strategy (Benett et al. 1994; Baltrusaitis 2008; Forster and Cimbala 2005).[17]

However, I argue that such a behavioral change and variations in alliance burden sharing are both direct and indirect evidence of privatized benefits of alliances in unipolarity. In other words, the emerging complexity of burden sharing debate is mainly due to the shifts of the cost and benefit structure in alliance politics. If the alliance benefit is still larger than each member's cost, debates on burden sharing are not likely to occur. During the bipolar system, minor allies' had competing incentives of free-riding to two system leaders who were willing to intervene into non-structural conflicts or crises in fear of disturbing *status quo*. However, it is uncertain whether the unipole would take an action to all kinds of localized, non-structural crises. Moreover, "strategic interest" of an alliance, which was created by structural threat, in preserving alliance, in protecting the allies' power resources, and in preventing the designated opponent from increasing its power resources (Snyder 1990, 108) needs to be reassessed in terms of the non-structuralized security environment and changed values of alliance. Then, adjusting alliance burden sharing is followed by the reshaped cost and benefit structure of an alliance that is a function of two key variables: the *necessity* of alliance and each ally's

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[17] However, recent crisis in Libya and the NATO's *Operation Odyssey Dawn* demonstrates that the outcomes of NATO's resistance of burden sharing against U.S. pressure would be bitterer than their expectation. After the first phase of air-strike operations, Obama announced that the U.S. would "focus our unique capabilities on the front end of operation and … transfer responsibility to our allies and partners" (Hallams and Schreer 2012, 321). Since the U.S. moved to a 'supporting' role to reduce its costs of operations, NATO operations in the Libya campaign severely suffered from the lack of fire power and even NATO allies' (e.g., Poland and Germany) opposition to providing support. Hallams and Schreer (2012) suggest that the Libya operation will serve as a benchmark for the future of NATO to find a more sustainable burden-sharing arrangement (324).

capacity to secure its own interest. In the following section, I will present a theoretical framework of how varying degrees of the alliance necessity and an ally's capacity influence alliance burden sharing behavior.

4. 3. Necessity, Capacity, and Burden Sharing

In the realist perspective alliances necessitate sources of threat that would threaten allied members' vital interests and the net benefit of an alliance, motivating them to cooperate with each other. Changes in the systemic distribution of power alter the characteristics of alliances such as alliance cohesion, dependence, efficacy, and so forth. However, the concepts of cohesion, dependence, and efficacy have been used interchangeably in the alliance politics literature (Holsti et al. 1973; Chernoff 1990; Walt 1987; Snyder 1997; Weitsman 2004). In a system-level analysis presented in previous chapters, however, I argue that alliance cohesion, as a systematic variable, is a function of external threat differentiating the accessibilities of an ally's capabilities in needs (Hoslti et al. 1973; Sorokin 1994). Snyder (1997) distinguishes alliance dependence as a function of the net benefit that an ally receives from alliances compared to the benefits available from alternative sources (Snyder 1997. 166). Holsti et al. (1973) describe alliance efficacy as "the ability of the alliance to achieve its goals" (16).

In order to conceptualize an explanatory variable to examine variations in burden sharing behavior among different allies, however, I define *alliance necessity* as an interacting function between nonstructural threat and security goals of an alliance. This synthesizes Holsti et al. and Snyder's definitions of alliance efficacy and dependence. Alliance cohesion refers to the tightness of an alliance relationship in response to

systematic factors such as external threat and alliance choice while alliance necessity means the needs of allied support for an ally's security interest based on its own capability, so to speak. For example, the cohesiveness of the NATO alliance might have decreased with the dissolution of the Soviet Empire; Germany's necessity of NATO alliance will not be the same as that of France due to varying degrees of ally-specific private and shared security interests and their own capabilities.

Within the same context of an alliance relationship, each member's alliance necessity would vary because states may be dependent on their allies for a wide range of values including military security, prestige, domestic stability, and support for imperial ventures (Snyder, 166). As Snyder argues, "benefits are net because an alliance is an exchange: the values provided by the ally are partially offset by the cost of one's own commitment to the ally" (166). In general, when a state has alternative sources of values required for its security interest and possesses sufficient capabilities to achieve its goals, it may be less dependent upon the ally, and vice versa. Alliance necessity can be comprised of three elements: (1) a state's need for military assistance, (2) the degree to which the ally fills that need, and (3) alternative ways of meeting the need (166).

The factors in alliance necessity are also subject to constant and frequent change (167). First, alliance necessity of any pair of allies is not only influenced by their relations with each other but is also altered by conflict relationship throughout the system. For example, the structure of net benefits in a pair of allies would differ in a symmetric relationship from an asymmetric one (Altfeld 1984; Morrow 1991; 2000). In addition, international systemic structures and the impact of external threat may produce differentiating effects of alliance necessity across different system polarities (Waltz 1979;

Snyder 1997). Second, alliance necessity is determined by varying scopes of interest. A state may be dependent on its allies for some goals but not for others (Snyder, 168). For example, alliance necessity will be greater than a simple military assistance when it creates the side effects of prestige, domestic unity, political support, and economic interdependence. Thus, in order to interpret the effects of alliance necessity, it is indispensable to scrutinize specific state-to-state security relationships.

In particular, in a contemporary unipolar world, two systemic properties, the absence of structural threat and the power preponderance of the U.S., brought drastic changes in ally-specific security environments and subsequent alliance efficacy. First, the end of the Cold War shifted the U.S. alliance strategy from the 'threat-based' to the 'capabilities-based' indicating that the necessity of the U.S. alliance network had changed. One of the important aspects of contemporary U.S.-centered alliance system is that most alliances originated in a bipolar world. What motivated the U.S. to establish and maintain such a world-wide alliance network was securing its national interest with like-minded partners by deterring the communist Soviet's expansionism while maintaining the balance of threat. However, the dissolution of structural threat made containment, or conventional deterrence, no longer a transferable motivation in accounting for the post-Cold War security environment of the absence of the "cautious" adversary to be contained; of the shift from a state-targeted strategy to a non-state targeted one; and of no relevant competitor to restrict the sole superpower's unilateralism (Gaddis 2005, 380-5). Instead, these changed systemic features shifted alliance functions toward conventional defenses (Foster and Cimbala 2005). From the U.S. standpoint, the function of alliance is now focused on conventional defense against local and regional threat and new types of

international threats such as global terrorism, weapons of mass destruction, the international environment, and human rights. The following example demonstrates how the conventional defenses influence the necessity of alliance politics for the U.S.

> [T]he United States' new strategic doctrine is a capability-based strategy that seeks to 'dissuade' and 'reassure' while identifying those who are capable of threatening the United States. Within the context of this pre-emptive doctrine, the United States is prepared to expand overseas deployments but decisions to intervene militarily are to be based more heavily on national interests. The theoretical application of this strategic policy indicates the consumable nature of defense resources. If the United States were expending defense resources to counter Iraqi aggression in the Persian Gulf and combating al-Qaida in Afghanistan, it may not be prepared to respond to a renewed conflict in Macedonia or Bosnia. Under these circumstances, defense is no longer a public good (Forster and Cimbala 2005, 10-11).

In short, it is important to note that alliance necessity is exclusively determined by the U.S. national interest, and alliances are no longer a public good under the condition that conventional defense is a major function of alliances.

Second, for the U.S. allies, the intensity of a local threat and the needs for the U.S. military assistance to deter it would play a critical role in determining alliance necessity. Because the U.S. is the most formidable security provider to meet the ally's needs in unipolarity, finding alternative ways to replace it is most improbable. Whereas, demands for the military presence of the U.S. troops and strengthening its alliance relationship tend to increase for some U.S. allies threatened by current and potential adversaries. As Walt (2009) points out, European and Asian allies continue to favor an American military presence as "an insurance policy" against any future threat posed by regional powers (111-2). However, alliance necessity will vary in terms of ally-specific security environment and its own security interest. For example, the European allies

continue to find the American military presence “a stabilizing factor against in their relations with one another, a residual guarantee against a Russia turned powerful and nasty and a necessary partner in dealing with threats on Europe’s periphery” (Art 2003, 164). In the region of East Asia, Japan is concerned about North Korea and rising China as a regional power; South Korea not only worries about North Korea but also about the aftermath of a unified Korea that would be sandwiched between Japan and China; and both Koreas and China are concerned about growing Japanese militarism (164).

In short, the post-Cold War U.S. alliance strategy seemed to have moved from immediate and extended deterrence to general deterrence (Mearsheimer 1983; Morgan 2004), yet its allies’ needs for U.S. military support were unchanged to deter regional threats in many cases. Although a state has sufficient capacity to defend its security from an adversary’s threat (i.e., South Korea may self-reliantly defeat an attack by North Korea), it does not mean that the former can deter the latter. In cases that the U.S. allies’ concerns are deterring rivalries or regional threat, their alliance necessity would be more critical than others facing no immediate threat. For example, Japan’s needs of the alliance with the U.S. to deter China from being a dominant regional power may be greater than the alliance necessity of Thailand. Then, the varying degrees of each ally’s necessity of the U.S. alliance would play an important role in explaining the post-Cold War alliance politics and burden sharing behavior.

Necessities of an alliance can be determined by three sub-dimensional factors: military, economic, and political. First, military alliances are traditionally formed as principal tools for the aggrandizement of the military capabilities of allied forces in the hope of achieving their common goals. Although subservient functions are utilized to

foster alliance relationships, the most fundamental motivation of states to form alliances is to add the power of their allies to themselves (Liska 1968; Waltz 1979; Weistman 2004). In addition, military necessity includes the accessibility to allies' territories, an integrated command and control structure that establishes joint war plans and exercises, interoperability of allied forces, sharing of military information, and the provision of combat support (CS) and combat service support (CSS) to exercise the allied forces more effectively.

Second, alliances are closely associated with economic incentives that they produce both directly and indirectly. Direct incentives refer to the tradeoff between arms versus alliances (Altfeld 1984; Morrow 1993). As Altfeld (1984) contends, states can form alliances and build to augment their own security. However, each alternative imposes costs attached, and alliances tend to be attractive when marginal benefits of an alliance exceed its marginal costs. Indirect incentives are related to an increase in net-flows of international trade within alliance blocs (Gowa and Mansfield 1993; Gowa 1995; Mansfield and Bronson 1997; Morrow et al. 1998). For example, Gowa (1995) and Mansfield and Bronson (1997) argue that military alliances which create political incentives for participants to engage in trade, and preferential trading arrangements on bilateral trade which create commercial incentives for allied members promote liberalization of trade with allies producing security externality.

Third, political necessity of alliance refers not only to normative relationship in terms of regime types, memberships of international institutions, and shared identities and values but also to strategic concerns with respect to the allies' geopolitical situations and the prospects of international conflicts. As Paul Schroeder (1976) emphasizes, to

some extent, alliances politically intend to manage and restrain allies' behavior by "exercising control over an ally's policy" (230). Particularly, given the power imbalance between the unipole and its allies in the American-centered alliance system, the political necessity of the alliance is increasingly important.

Table 4-2 presents determinants of alliance burden sharing in unipolarity. Theoretically, there are four types of burden sharing behavior in terms of an ally's necessity of allied support and its own capacity. The first type is contribution bargaining when alliance necessity is high and when the ally itself has sufficient capacity to deter its threat. Conceptually, the unipole can be included in this category. Although the U.S. is the sole superpower who can act at its will in most cases with greater freedom of action and its supreme power, it does not mean that the U.S. does not rely on alliances. Rather, it means that the U.S. needs for allied support are *selectively* determined by its security goals.

For example, the U.S. necessitates maintaining the NATO alliance and some bilateral alliances in the East-Asian region in order to prevent regional powers from threatening regional security, to secure economic interests in different regions, and to promote an open market economy and democracies (Lake 1993; Posen and Ross 1996; Art 2003; NSS 1996, 2002). According to US Defense Planning 1992-1999, which was declassified and leaked in the *New York Times* in September 2007, US defense policymakers recognize that "the end of the Cold War reduces pressure for US military involvement in every potential regional or local conflict. Indeed, absent a global ideological challenge, we have the opportunity to exercise far greater *selectivity* in our

Table 4-2. Determinants of Allied Burden Sharing Behavior in Unipolarity

		Necessity of the Ally's Support	
		High	Low
Capacity of Achieving Goals	High	Type I (bargaining contribution)	Type III (under contribution)
	Low	Type II (fair/ increasing contribution)	Type IV (no contribution)

commitments, to rely more heavily on *multilateral* efforts to resolve regional or local crises that do not directly threaten our interests, and to draw more fully on non-military instruments as a means of conflict resolution" (p. 15). To fulfill these strategic goals, the U.S. tends to reshape burden sharing with selected allies, in which the preponderant bargaining power of the U.S. increasingly places the pressure of bearing more burdens on its allies' shoulders.

Type II is when an ally's necessity of allied support is greater and its own capacity is limited in achieving its security goals. Indeed, many cases of the U.S. allies facing an immediate threat will be included in this category. The polarity shift to a unipolar world fragmented the scope of security environments to regional and ally-specific local concerns. From the allies' standpoint, the present and future support of the U.S. military alliance is the most reliable way to decrease uncertainty in ally-specific security concern. Then, they are more likely to increase their contribution to maintain alliance relationships at the cost of both political and economic support. Alliance necessity also explains a short-term and a long-term burden sharing behavior in a simpler way. While a long-term burden sharing adjustment is related to the question of managing their relationship so as to preserve the alliance and to maximize net benefits from it, short-term burden sharing (i.e., ad-hoc coalitions) presents how allies seek to maximize their interests given their degrees of alliance necessity and the level of commitment. However, these two types of burden sharing are not mutually exclusive: short-term tactics are bound to affect the long-term relationship; and the changes in long-term burden sharing behavior affect short-term alliance benefits. Thus, the allies who want to secure a

long-term alliance relationship with the U.S. tend to actively respond to the U.S.'s short-term request for cost sharing of ad hoc military missions (Bennett et al. 1994).

The third type is a tendency to undercontribute when alliance necessity is relatively low but an ally has sufficient capacity to defend itself from an immediate threat. The logic of the alliance security dilemma (Snyder 1984; 1997) explains the causal link of alliance necessity and burden sharing behavior. The security-autonomy trade-off creates alliance dependence when potential allies enter into an official alliance. However, when there are changes in the security interests, capabilities, or domestic situations of the allied states, the initial optimum of security-autonomy trade-off would be disrupted. For example, if the external threat declines and hence produces an "excess" of security, an ally may opt to trade some of the excess for more autonomy, by loosening the alliance dependence or by reducing support to the ally on some issues, at some risk of losing the ally's support (181). However, exercising too much autonomy runs the risk of abandonment, although it reduces the risk of entrapping an ally into unwanted wars following the reckless ally. Thus, a possible hedge against abandonment leads allies to respond to the ally's request to increase their commitment through the sharing of political and financial burdens to some extent. But, prevailing concerns about entrapment may lead them to reduce their commitment by altering the burden sharing agenda with multidimensional issues and alternative measures (i.e., the NATO alliance). Therefore, states with reduced necessity of the ally's support tend to under contribute to burden sharing.

Type IV refers to no contribution to allied defense that is likely when a state faces no actual threat and its capacity is not significant enough to change its security

condition. Although these countries may maintain official alliances with the unipole (i.e., member states of the Organization of American States), neither the unipole nor these countries have incentives to share the burden while maintaining a contractual relationship under the name of alliances.

In sum, alliance necessity and capacity are two contextual variables that determine burden sharing behaviors in unipolarity. However, these four types of burden sharing behavior are not mutually exclusive but transitive in any direction in cases of changes in the security environment and an ally's relative capability. For example, rapid growth of regional power and the increases in numbers of regional conflicts may lead type III allies to type II, or reduced tensions among rivalries and enhanced confidence building among them can shift their burden sharing behavior from type II to type III. Therefore, in addition to examining systemic factors of determining alliance necessity, it is important to understand ally-specific security environments and changes in the allies' own capacities and security goals.

CHAPTER V

MINOR POWER ALLIANCES UNDER UNIPOLARITY: THE CASE OF SOUTH KOREA AND JAPAN

Burden sharing behavior of two bilateral East-Asian allies of the U.S. in the post-Cold War period – South Korea and Japan – provides compelling cases to test the necessity-capacity theory of alliance. First, South Korea and Japan signed a mutual defense treaty with the U.S. in 1953 and in 1951 respectively and continue to maintain a strong relationship with the U.S. over the half century experiencing changes in the international security environment and transitions of alliance relations. Second, these two East-Asian allies appear to rely on bilateral relationships with the U.S. for their national security rather than on other factors such as alternative alliance choices, their own capabilities, international institutions, and shared interests and identities. Third, these two countries are hosting the second and the third largest overseas bases and facilities of the U.S. forces that are critical to understand the post-Cold War alliance politics, as well as the alliance cost sharing measured in multidimensional indicators such as the Host Nation Support (HNS) program, the contribution to multinational forces operations in ad hoc coalitions, and support for the U.S. global defense strategy.

This chapter presents case studies of South Korea and Japan's alliance burden sharing highlighting the necessity of alliance in accordance with their specific security interests and the strategic values of the U.S. alliances. As predicted in Type II allies of the necessity-capacity theory, an increase of uncertainty in the regional security contexts and insufficient capacity to fulfill their security goals lead South Korea and Japan to bear more burdens to secure alliance relationships with the U.S. in the post-Cold War period.

5. 1 South Korea

5. 1. 1. The ROK-US Alliance in the post-Cold War period

The ROK-US alliance was formed just after the *Armistice Agreement* signed in July 1953 between North Korea and the U.S. in order to counterbalance the power superiority of North Korea over South Korea and to restore the amplified power imbalance caused by North Korea's alliances with the Soviet Union and China (Suh 2004, 135). Throughout the Cold War period, however, such power imbalances have been neutralized, or replaced, by the South's superiority, and the ROK-US alliance does not merely persist but is being reinvigorated in the twenty-first century. In April 2008, US President George W. Bush and ROK President Myung-bak Lee at the Summit agreed to strengthen their relationship by forming a 'Comprehensive Strategic Alliance in the 21st Century' that would contribute to peace and security at regional and global levels. Moreover, in June 2009, the two allies adopted the 'Joint Vision for the ROK-US alliance' which was the blueprint for the development of the alliance in the future (The ROK Defense White Paper 2010).[18] In this joint communiqué, they settled various issues related to the adjustment of alliances like the relocation of the U.S. military bases, the adoption of "strategic flexibility," comprehensive security assessment, the *Joint Vision* study, transfer of wartime operational control, and the *Special Measures Agreement* that deals with alliance burden sharing.[19]

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[18] A senior researcher of the Sejong Institute, a think tank research organization, assessed the 'Joint Vision for the ROK-US alliance' as the restoration of alliance after nine-years of drifting the strategic partnership since the South-North Korea Summit of June 15, 2000 (Lee 2009).

[19] Choi and Kang, A New Vision for Korea-U.S. Alliance : Toward ROK-U.S. strategic alliance. *The Korea Herald*, April 8, 2010.

However, this summary statement falls short of explaining changes in the cooperative relationship between the ROK and the U.S. in the post-Cold War era. For example, Jung (2012b) points out that there is a crucial difference between the beginning and the end of the 1990s in the vitality of the alliance. In the early 1990s, it seemed that the alliance was taking steps toward the termination of the mutual defense treaty, which had persisted for over five decades. The U.S. Congress passed on July 31, 1989 the *Nunn-Warner* revised resolution calling for a reduction of the U.S. Forces in Korea (USFK). Based upon this report, the U.S. Department of Defense (US DoD) adopted the East Asia Strategic Initiative (EASI) in 1990 and in 1992, in which a three-stage plan to withdraw the USFK completely from the Korean peninsula, and the dissolution of the Combined Forces Command (CFC) of the USFK and the ROK forces were presented. As the most significant event during this period, the Bush administration withdrew all U.S. tactical nuclear weapons from South Korea in 1991 (Suh, 135).

These policies of drawdown, however, were reversed in accordance with drastic shifts in global and regional security environments such as the first Gulf War in 1990-91, NATO's expansion, and the first North Korean Nuclear Crisis in 1993-94. In particular, the Clinton administration's proclamation of *Engagement and Enlargement* policy in 1993 and the *U.S. Security Strategy in the East Asia Pacific Region* in 1995, known as the first East Asia Strategy Report (EASR), suspended the reduction plan of the USFK, returning the alliance to "as usual" (Suh 136). The 1995 EASR reconfirmed U.S. commitment to the region maintaining the presence of 100,000 U.S. troops and strengthening bilateral ties with South Korea and Japan. This report also emphasized that

the U.S. presence would continue as far as North Korea threatened regional peace and allies' security that is a vital interest of the U.S. (US DoD 1995).

In the early 2000s, the ROK-US alliance encountered new challenges with the Bush administration's hard-line policies toward North Korea, and the relaxation of inter-Korean tension and increasing anti-American sentiment among the ROK population. Since the *9/ 11* terrorist attack, the Bush administration adopted the concept of preemptive defense that provoked serious security concerns about the U.S. unilateral decision of striking North Korea's nuclear facilities and North Korea's possible retaliation against the ROK citizenry (Suh 2004). Also, the reduced enmity between the two Koreas after the historic 2000 Summit between President Kim Dae-jung and Kim Jong-il, and the tragic death of two Korean girls killed accidently by the USFK in 2002 and the following passive reaction of the U.S. government exacerbated anti-American sentiment among the ROK population, producing a negative influence on alliance cooperation. However, the authorization of a realignment program to transform the U.S. forces to be "lethal, light and mobile" (US DoD 2002) reduced by 3,600 troops the USFK from the Korean peninsula and projected the plan of relocating 43 U.S. military bases, scattered but mostly forward deployed in the Demilitarized Zone (DMZ), to two major bases south of the Han River (ROK Ministry of Defense 2006). In addition, the mutual agreement to transfer wartime operation command (OPCON) from the USFK to the ROK government until 2012 deepened the fear of abandonment ofthe ROK and increased demand for a strong alliance commitment. Although Donald Rumsfeld (2004, 10), the former U.S. Secretary of Defense claimed that the proposed U.S. force posture initiate and transfer of some responsibilities to South Korea forces did not indicate reduced

alliance commitment but rather was making it clear that “the U.S. and the ROK are working together as partners, each bringing important capabilities to our shared challenges,” such drastic changes in the U.S. alliance strategy brought into necessity of the adjustment of the alliance from defending the ROK to a more comprehensive partnership. As a result, the ROK-US defense authorities agreed upon assessing the role of alliance by conducting the Joint Vision Study (JVS) at Future of the ROK-US Alliance Policy Initiative (FOTA) and Strategic Policy Initiative (SPI) since 2003 (ROK MND 2006).

The strategic partnership of the two allies becomes more solidified after the Obama administration is launched in 2009. In *The United States and the Asia-Pacific Region: Security Strategy for Obama Administration*, Cossa et al. (2009, 5) emphasized that the Obama administration must reaffirm the importance of the U.S.-ROK alliance and propose new strategic guidelines to enhance bilateral cooperation both on and off the Korean Peninsula, and the ratification of the Korea-U.S. free trade agreement (KORUS FTA) signed in 2007 would be an important step in broadening alliance-based cooperation. With the request of the ROK government, a transfer of OPCON was delayed by the announcement of the plan of ‘Strategic Alliance 2015’, and the two allies agreed upon the ‘Joint Vision for the Alliance of the ROK and the USA’ that would provide extended deterrence to the Korean peninsula, including the nuclear umbrella of the U.S., based on a combined defense posture (ROK Ministry of Defense 2010). After some modification to the original agreement, the KORUS FTA was also ratified as a sign of the consolidated alliance partnership (Maynin et al. 2011; MND 2010).

5. 1. 2. Necessity and Capacity of the ROK-US Alliance

In principle, the ROK-US alliance is a mutual defense treaty aimed at defending one of the allies against the threat of North Korea, which is the stipulated enemy in the basic war plan of the allied forces, the Operation Plan 5027 (OPLAN 5027). Since the creation of the Combined Forces Command (CFC) – the binational Headquarters of the ROK and the US forces – in 1978, the two allies have jointly developed and maintained the OPLAN 5027 that is composed of five-phases as follows: (1) the ROK-US combined forces would conduct a vigorous forward defense focusing on blocking North Korea's attack and destroying its ground forces as much as possible north of Seoul; (2) the ROK-US combined forces would buy time focusing on seizing key terrain, inflicting additional casualties on North Korea's forces, and rebuffing further attacks while US augmentation forces arrive in Korea from the US mainland and Japan; (3) the ROK-US combined forces would repulse North Korean forces when the US ground buildup was completed and the ROK forces replenished; (4) the ROK-US combined forces would conduct a powerful counteroffensive crossing the DMZ and marching to Pyongyang; and (5) the ROK-US combined forces would occupy Pyongyang and prepare for the reunification of the Korean peninsula (Kwak 1995, 242).[20]

Two important aspects of the OPLAN 2057 are 1) the CFC would conduct defensive operations protecting Seoul, the capital of the ROK until the US reinforcement was completed in phase 2; and 2) decisive-counteroffensive operations would be deployed by the 690,000 augmented US forces and the replenished ROK forces after phase 3. That is, the command structure of the CFC and the OPLAN 5027 were devised

[20] Also, visit http://www.globalsecurity.org/military/ops/oplan-5027.htm

for the U.S. forces, rather than the ROK forces, to play a leading role in conducting a conventional defense against North Korea's offensive scenario. Moreover, such a combined defense system has increased the security dependence of the ROK forces on the ROK-U.S. alliance including the weaponry system, arms transfer, interoperability with the U.S. forces, and military intelligence and surveillance system. The most critical concern that political leaders and military planners of the ROK possess, thus, is whether the U.S. maintains a strong commitment to the ROK-US alliance after the dissolution of the CFC and the transfer of wartime OPCON to the ROK forces. [21]

More importantly, the provision of the U.S. nuclear umbrella to the ROK has been considered to play a deterministic role in deterring North Korea's attack. With respect to North Korea's nuclear issue and inter-Korean relations, the ROK pursued the strategy of pressure on North Korea's opening through *the Northern policy*, while North Korea tried to exclude the ROK and negotiate with the U.S. in the First North Korea nuclear crisis in 1993-94 (Shin 2007). In the 2003 Second North Korea nuclear crisis after the Bush administration exemplified North Korea as "axis of evil", the ROK sought to dismantle the nuclear program through the Six-Party Talks, a body of multilateral negotiation among the U.S., China, Russia, Japan, and the two Koreas, North Korea tried to frame bilateral negotiations between the U.S. and herself (Lee 2005). Although North Korea

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[21] Even progressive parties of the ROK are concerned about the possibilities of the independent operations of the U.S. forces against North Korea after the dissolution of the CFC, based on various operation plans of the U.S. Pacific Command (PACOM). For example, OPLAN 5026 deals with a preemptive strike against North Korea's nuclear facilities; OPLAN 5028 concerns preventing North Korea from escalating regional crises by the USFJ with the support of Japan's *Self-Defense Forces*; OPLAN 5029 is intervening into North Korea in cases of contingencies; and OPLAN 5030 concerns North Korea's sea blockade by the US Seventh Fleet and the Fifth Strategic Air Force (*The Hakyeoreh* . September 12, 2006). http://www.hani.co.kr/arti/politics/defense/156379.html

wanted to use its nuclear threat as a bargaining chip to discuss directly with the U.S., the ROK sought to dismantle the threat either by ameliorating the inter-Korean relationship or by diplomatic cooperation with neighboring major powers, in which the U.S. nuclear umbrella played a decisive role. In short, the ROK-US alliance has been and will be a cornerstone of deterring North Korea's nuclear threat under the condition of nuclear asymmetry between the two Koreas. Morgan (2007) also argues that "Washington's approach to North Korea is dominated not by the military threat it poses to South Korea but the threat its nuclear weapons program, plus its sales of missiles and transfers of nuclear weapons-related technology, may well pose to regional and global security" (12).

From the U.S. standpoint, the ROK-US alliance is also militarily important for its regional security strategy and beyond. In comparison to Japan that is limited by its constitution and political turmoil; Australia that is near the limit for such a small force; and the Philippines and Thailand facing internal challenges that keep them from being significant partners beyond their borders, the ROK has large and well-trained ground forces, substantial power projection capabilities, great naval potential, and a battle-ready military that has been at a high state of readiness for generations (Campbell et al. 2009, 4). Assessing the ROK's acceptance of the need for "strategic flexibility" in USFK as a crucial first step to address the extra-peninsular military, the U.S. expects that the ROK play a more active role in contributing to international peace and stability while modernizing its military forces and embracing strategic vision for the future alliance (Campbell et al., 63).

Economically, the ROK and the U.S. appear to share a common interest. For the ROK, allying with the U.S. has been attractive since the association with the U.S. boosts

the economy, has promoted Korean access to the American market, and has allowed the ROK to spend less on defense, leaving more resources for development (Morgan 2009, 24). In addition, a safer ROK also presents more attractive financial markets to foreign investors.[22] Under the bilateral security cooperation, the two allies have increased economic interdependence such that two-way trade between them totaled over $86 billion, making the ROK the U.S.'s seventh largest trade partner and positioning the U.S. as the third-largest trading partner of the ROK (Manyin et al. 2011, 23). Moreover, the Korea-US Free Trade Agreement (KORUS FTA), which is the second largest of the U.S. FTA after the North American Free Trade Agreement (NAFTA) in 1993 and also the second largest FTA of the ROK after the KOR-European Union (EU) FTA ratified in 2011, is expected to strengthen economic ties between the allies (Manyin et al. 2011, 1).

In particular, the U.S. economic hardships stemming from the 2008 financial crisis[23] increase the economic importance of the ROK-US alliance for sustaining the U.S. power preponderance and its capabilities of power projection (Denmark and Hosford 2009). Also, the economic instability of EU provoked by the 2011 financial crisis and continuing discord on NATO burden sharing between the U.S. and European allies led the Obama administration to draw more attention to East Asia and the Middle East. For example, in assessing NATO Summit in Chicago in May 2012, Charles Kupchan, a

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[22] The ROK is one of the fastest-growing economies in the world. With its easy access to the neighboring markets of Russia, China, and Japan, the ROK has constructed an expansive FTA network with the U.S., EU, and countries in Asia and Latin America that account for 61 percent of the world GDP, 46.2 percent of world trade, and 39.7 percent of the global population (For further information, visit www.investkorea.org).

[23] The aftermath of the financial crisis would increase a debt-to-Gross Domestic Product (GDP) ratio exceeding the post-War record of 109 percent as early as 2020 (Denmark and Hosford 2009, 8).

military expert at the Council on Foreign Relations, argues that NATO burden sharing takes on a new importance because of the NATO's budget restrictions and the issue of the fair share of military burden.[24] He also emphasizes that "U.S. and European leaders [would] pay close attention to defense spending and the dynamics of the relationship between NATO and the EU given the economic crisis now hammering the Euro currency zone" (Voice of America, May 17. 2012). To avoid such difficulties, the alliance senior officials are now discussing the notion of partnership with non-NATO countries, including South Korea and Australia.

Politically, the ROK-US alliance is more than a military commitment, especially for the ROK citizenry. Suh (2004) contends that "[T]o most in the ROK the alliance looks like the natural order of things. To them a Korea without alliance is "*unthinkable*" (135). According to Suh (2004), the persistence of the ROK-US alliance beyond the Cold War is explained by a number of *asset specificities* that strengthen its institutional bond with the U.S. since the democratization and the *Americanization* of the ROK's political and cultural identity in the mid-1980s, and by an *alliance constituency* which is a set of domestic groups born out of the necessities of the alliance depending for their existence on the alliance. The alliance has been also one of the most critical issues in the ROK's domestic politics. For example, the former President Roh, Moo-hyun, who was elected as a president who could say no to the U.S. in 2003 when anti-Americanism arrived at its peak, made a direct appeal to the public to stop the famous candlelight vigils just after he took office and tried to plead for a continued American military presence against North

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[24] DeNesnera, Andre. NATO members to Discuss Burden Sharing. *Voice of America*, May 17. 2012. http://www.voanews.com/content/nato_leaders_to_discuss_burden_sharing/667152.html

Korea's threat. At the Summit on June 26, 2010, President Lee, Myung-bak requested US President Obama for the deferral of the wartime OPCON transfer from April, 2012 to the end of 2015 in order to alleviate national security concerns.[25]

In addition to North Korea's threat, the uncertainty and instability of the regional security order in East Asia increases the political importance of the alliance (Jung 2012b). The ROK government expects that the U.S. maintains, at least, neutrality with regard to territorial disputes with Japan on the group of islets, Dokdo, in East Sea of the Korean Peninsula (Jung, 249). U.S. political support is critical for the ROK to prevent China from intervening in the reunification of two-Koreas and to avoid potential territorial disputes with China on the Exclusive Economic Zone (EEZ) in the area near Ieodo, which is a submerged rock, located in Yellow Sea of the ROK (249). To protect its interest and to avoid unpredictable transitions in regional security, the ROK will need the strong alliance tie with the U.S. seeing that the U.S. presence is an important *insurance policy* against the threat that to remain and against those that could arise (Art 2003, 164).

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[25] According to the ROK's Defense White Paper (2010), adjusting the timing of wartime OPCON Transition is critical for following reasons: 1) increasing uncertainty around the security and instability on the Korean Peninsula, provoked by North Korea's attack on the ROK's Cheonan; 2) the occurrence of several politically sensitive events in the region including the ROK's general elections (April) and presidential elections (December), transfer of leadership within China's Communist Party (October), and presidential elections in Russia (March); and 3) a strong desire of the ROK people for the deferral of the wartime OPCON Transition and the dissolution of the CFC.

5. 1. 3. The ROK's Alliance Burden Sharing

For the last two decades, the ROK Ministry of Defense has steadily increased its defense burden. As seen in Table 5-1, the ROK's annual growth of military expenditures is 7.9 percent since 1991, positioning it as the twelfth largest military in fiscal year 2009. As a result, the ROK's military expenditure is estimated to be more than three times bigger and its economic capabilities eighteen times bigger than its competitor, North Korea (ROK MND 2010). In comparison to its neighboring states – China and Japan – however, the ROK is still a minor power in terms of both military and economic capabilities. For example, China's military expenditure increased from $18.9 billion in 1991 to $129.3 billion in 2011 while Japan's military spending marked little change from $50.5 billion to $54.5 billion during the same period (See Table 5-2).

The pattern of military spending of the ROK in the last two decades has represented the dynamic changes in the ROK-US alliance relation, as well as the impact of domestic politics and inter-Korean relations. From 1991 to 1997, the ROK's defense spending increased over 10 percent annually indicating that a decrease of the U.S. defense budget and the projected withdrawal of the USFK from the Korean peninsula provoked serious security concern about the demise of the alliance and the necessity for self-reliant defense system. However, the inauguration of Kim Dae-jung administration in 1998 and his policy of engagement with North Korea, known as the *Sunshine policy*,[26] brought changes not only into the two Koreas' relationship but also into the defense spending of the ROK.

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[26] Kim Dae-jung initially used the analogy of sunshine in order to persuade the U.S. government to pursue a soft-landing policy in dealing with North Korea, but it became his official North Korean policy after he took office (Moon 2000, 6).

Table 5-1. Military Spending of the ROK (1991-2010)[a]

(Billions of Korean Won)

year	Military Expenditure	GDP	% GDP	Military Personnel	Population
1991	8,061	231,428	3.5	750	43,361
1992	9,067	263,993	3.4	750	43,697
1993	9,935	298,762	3.3	633	44,009
1994	10,863	349,973	3.1	633	44,322
1995	11,940	409,654	2.9	633	44,651
1996	13,200	460,953	2.9	660	45,006
1997	14,125	506,314	2.8	672	45,379
1998	14,656	501,027	2.9	672	45,755
1999	14,379	549,005	2.6	683	46,110
2000	15,608	603,236	2.6	683	46,429
2001	16,708	651,415	2.6	683	46,707
2002	17,643	720,539	2.4	686	46,948
2003	18,884	767,114	2.4	686	47,164
2004	20,421	826,893	2.5	687.7	47,366
2005	22,694	865,241	2.6	687.7	47,566
2006	24,039	908,744	2.6	687.7	47,766
2007	25,765	975,013	2.6	687	47,962
2008	28,733	1,026,452	2.8	687	48,152
2009	31,121	1,065,037	2.9	687	48,333
2010	31,876	1,172,803	2.7	687	48,219

Source: Stockholm International Peace Research Institute (SIPRI), 2012

[a] The figures for South Korea do not include the outlay of “special funds” for relocation of military installations, relocations of US bases, and Welfare for Troops. These amounted to 449.3 billion, 1048.8 and 1285.2 billion Won in 2009, 2010 and 2011 respectively (SIPRI 2012).

Table 5-2 World Military Expenditure (FY 2009)

(Billions of US dollars)

Rank	Country	Military Expenditure	% of GDP	% of World Total
	Total	1559.0	2.6	100
1	U.S.	687.1	4.8	44.1
2	China	114.3	2.1	7.3
3	France	61.3	2.3	3.9
4	Great Britain	57.4	2.7	3.7
5	Russia	52.6	4.0	3.4
6	Japan	51.4	1.0	3.3
7	Germany	46.8	1.3	3.0
8	Saudi Arabia	42.9	10.4	2.8
9	Italy	38.2	1.8	2.5
10	India	34.8	2.2	2.2
11	Brazil	28.1	1.6	1.8
12	South Korea	24.3	2.8	1.6
13	Canada	20.2	1.5	1.3
14	Australia	19.8	2.0	1.3
15	Turkey	15.6	2.4	1.0
	North Korea	0.57 (7.7)[a]	28.5	0.49
	Others	256.9		16.5

Source: Stockholm International Peace Research Institute (SIPRI), 2011; Son and Kim 2011.

[a]The number in parenthesis represents estimated values

The sunshine policy has aimed at paving the way to peaceful co-existence and the dismantling of the Cold War structure dedicating the two Koreas to intensified military confrontation and overspending on national defense (Moon 2000). In 1999, the ROK recorded the first negative growth of military spending (-6%) while providing several hundred million dollars to North Korea as a carrot to enhance inter-Korean relations. Despite hard-liners' discontent of the Bush administration, this policy had been continued without critical changes by the ROK's successive Roh Moo-hyun government.
Since the second North Korean nuclear crisis in the fall 2002 and the U.S. military transformation after the 9/ 11 attack, however, the ROK's defense budget began to increase again from 2004.

The reduction of the military presence of the USFK and the fear of abandonment of the ROK are crucial factors accounting for a rapid increase in the ROK's defense spending although the reemergence of North Korea's nuclear threat and the degeneration of inter-Korean relations played a part. For example, in July 2004, the Bush administration notified the ROK government that 12,500 USFK, including 3,600 infantry forces that were dispatched to Iraq, would be withdrawn by late in 2005. Although it was a projected process as the part of the U.S. *Global Defense Posture Review* (GPR) and the *Military Transformation* (MT) (DoD 2004), it must have been a huge military, as well as economic and political, burden to the ROK government facing a belligerent North Korea. During the 11th and 12th FOTA respectively held in August and September 2004, the two allies compromised to postpone three phases of withdrawal until 2008 while maintaining most U.S. military assets for surveillance and reconnaissance and counter-fire operations against North Korea's long-range artillery (Lee 2005). Military experts expect that the

ROK should have borne more burden not only to enhance its military capabilities but also to produce policy coordination with the U.S. in the post-Cold War era. Since then, the ROK's defense spending has maintained at approximately 10 percent of annual growth.

Despite the fluctuation of overall defense spending of the ROK, various indexes of alliance cost sharing indicate that the ROK has drastically increased its share of burden in the post-Cold War era. First, under the Special Measures Agreement (SMA) reached in January 1991, the ROK started to provide the USFK with $1.0 billion Korean won of financial support to share the stationing cost of USFK, and the ROK is now assuming the burden of approximately half of the total stationing cost of USFK ($ 8.2 billion won in FY 2012).[27] As Table 5-3 presents, the amount of the ROK's financial contribution under the Host Nation Support (HNS) program has steadily increased regardless of the ROK's economic crisis in 1997-98 and the enhanced inter-Korean relations in the late 1990s and early 2000s. Moreover, a gradual reduction of USFK had no substantial effect on the increasing pattern of the HNS. Although the HNS remarked a negative growth once in 2005, it does not mean that the ROK decreased its financial support to the alliance considering the reduction of 3,600 troops of the USFK, which were dispatched to Iraq directly from the ROK.

It is important to note that the ROK's financial contribution to the alliance was even greater when President Kim Dae-jung implemented the sunshine policy to relieve inter-Korean tensions in the late 1990s and early 2000s. For example, the size of the HNS in 1998 increased about 40% (from 2.9 trillion won to 4.1 trillion won), which was

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[27] According to the revised SMA in 2009, the ROK agreed upon increasing its contribution to cost sharing about 4% annually until 2013 in accord with the rate of inflation (Maynin et al. 2011, 20).

Table 5-3 The ROK's Host Nation Support to the USFK (1991-2011)

(Billions of Korean Won)

year	HNS	ME	GDP	% ME	% GDP
1991	1,073	74,524	231,428	1.4	0.46
1992	1,305	84,100	263,993	1.6	0.49
1993	1,694	92,154	298,762	1.8	0.57
1994	2,080	100,753	349,973	2.1	0.59
1995	2,400	110,744	409,654	2.2	0.59
1996	2,475	122,434	460,953	2.0	0.54
1997	2,904	137,865	506,314	2.1	0.57
1998	4,082	146,275	501,027	2.8	0.81
1999	4,411	137,490	549,005	3.2	0.80
2000	4,684	144,390	603,236	3.2	0.78
2001	4,882	153,884	651,415	3.2	0.75
2002	6,132	163,640	720,539	3.7	0.85
2003	6,686	174,264	767,114	3.8	0.87
2004	7,469	189,412	826,893	3.9	0.90
2005	6,804	208,226	865,241	3.3	0.79
2006	6,804	225,129	908,744	3.0	0.75
2007	7,255	244,972	975,013	2.9	0.74
2008	7,415	266,490	1,026,452	2.8	0.72
2009	7,600	289,249	1,065,037	2.6	0.71
2010	7,904	318,760	1,172,803	2.5	0.67
2011	8,125	341,130	1,237,128	2.4	0.66

Source: ROK MND (2010); Sheen (2009)

comparable to 0.8 percent of the ROK's total GDP. President Kim emphasized that the prerequisite for the success of the Sunshine policy, credible military deterrence must be guaranteed (Moon 2000). The Kim Dae-jung government was keenly aware of the acute military threat from the North and was more than willing to deter it through a strengthened security posture with the support of its ally, the U.S. (Moon, 9).[28] The ROK's contribution to the stationing cost of the USFK recorded about 3.9 percent of its total military expenditure and 0.9 percent of its GDP in 2004, when the two allies were experiencing a conflictual relationship due to different policy initiatives to handle North Korea's threat between the Bush government's coercive measures and the Roh administration's persuasive approach. In short, during the governance of the Kim and Roh administration from 1998 to 2007 that tried to settle the peace in the Korean peninsula through mutual confidence building and economic cooperation, the ROK government provided roughly 0.8 percent of its total GDP with the USFK as cost sharing of the ROK-US alliance.

The burden of alliance has also increased with the inauguration of the Lee Myung-bak government and the consensus on the development of the partnership toward a comprehensive alliance between the ROK and the U.S. In particular, the Defense Reform Plan 2020 (DRP 2020), which was initiated by the Roh Moo-hyun government in 2006, drastically increased demands not only for the acquisition of required resources to a successful military transformation but also for strengthening the alliance tie with the U.S.

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[28] Moon (2000) points out that five operating principles of the sunshine policy are 1) *strategic offensive* in pursuit of engagement through exchanges and cooperation despite North Korea's initial negative responses; 2) *flexible dualism* separating politics from economics; 3) a strong *deterrence posture* in which the role of CFC is emphasized; 4) *international collaboration* to facilitate conflict management on the Korean peninsula; and 5) *domestic consensus*.

In other words, in contrast to the logic of the arms versus alliance trade-off (Morrow 1993), it seems necessary for the ROK to bear an increased alliance burden to build its own armament. As shown in Table 5-4, this plan calls for 621 trillion won of defense budget from 2006 to 2020 (force improvement project of 272 trillion won and Operation and Management (O&M) of 349 trillion won), including 67 trillion slated only for the defense reform (MND 2006, 44). However, during the first phase that called for 9.9 percent annual defense budget increases between 2006 and 2010, the actual annual increase was only 7.2 percent, putting the plan some $3 billion dollars behind schedule.[29] To avoid military and economic difficulties of performing planned defense reform, the ROK government requested deferral of transferring wartime OPCON from 2012 to 2015 while agreeing to provide an approximately 4 percent annual increase of the HNS and additional costs for relocating U.S. bases with the USFK.[30]

In addition to the fixed costs for alliance maintenance like the HNS, the ROK government has agreed upon contributing to share the additional burden of the U.S. forces overseas operations and their strategic relocation plans. First, the ROK government has been responsible for sharing the costs of relocating the U.S. military bases since 2002. On March 29, 2002, military officials from the ROK and the U.S. signed an agreement known as the Land Partnership Plan (LPP). This plan was described

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[29] http://www.globalsecurity.org/military/world/rok/budget.htm

[30] For example, the Lee Administration reduced the increase of defense budget to 3.6% for FY 2010 citing economic pressures (Manyin et al. 18-19). The 2011 defense budget was approved at a 6.2% increase over the 2010 budget, which was also below the required budget increases (9.9%) of the planned defense reform (19).

Table 5-4 Major Indicators during the ROK's Defense Reform Period

(Trillions of Korean Won)[a]

Unit	06-20	06-10	11-15	16-20
GDP (nominal growth rate %)	22,422 (7.1)	5,085 (7.4)	7,215 (7.2)	10,122 (6.7)
Government Budget (annual increase%)	3,701 (7.1)	835 (6.9)	1,185 (7.4)	1,681 (6.9)
Defense Budget (annual increase %)	621 (6.2)	139 (9.9)	216 (7.8)	266 (1.0)

Sources: Ministry of National Defense White Paper (2006)

[a] These defense reform budgets are estimates by research organizations as of 2006. Therefore, the MND is amending the chart by annually examining the budget subject to changes taking place in the defense reform.

by the parties to the agreement as cooperative ROK-U.S. efforts to consolidate U.S. installations and training areas, improve combat readiness, enhance public safety, and strengthen the ROK-US alliance by addressing some of the causes of periodic tension and discontent among South Koreans regarding the U.S. presence in South Korea (US GAO 2003, 1).[31] Based upon the principle that the design and construction of replacement facilities are funded by the U.S. and all replacement facilities identified are granted by the ROK (LPP 2002), the ROK government has contributed about 63% of total costs ($3.6 billion of the $5.6 billion).[32] Figure 5-1 represents the cost sharing for the infrastructure construction of the USFK between the ROK and the U.S. Moreover, according to the LPP memorandum, the U.S. received permission from the ROK to divert some part of the HNS provided to the purpose of construction costs for relocating U.S. military facilities, as shown in Figure 5-2. Considering this funding situation, USFK estimated that only 13% of total LPP costs ($1,797 million of $22,600 million) would be granted by the U.S. military authorities.

Another benchmark of the U.S. base relocation plan in the 21st century, the Yongsan Relocation Program (YRP) that is the largest base relocation of the U.S. DoD, was signed by two parties on October 24, 2004. According to the YRP, the Headquarters of United Nations Command (UNC), CFC, and USFK, that are located in the Yongsan Garrison will be relocated to Camp Humphrey, as augmented by additional land to be

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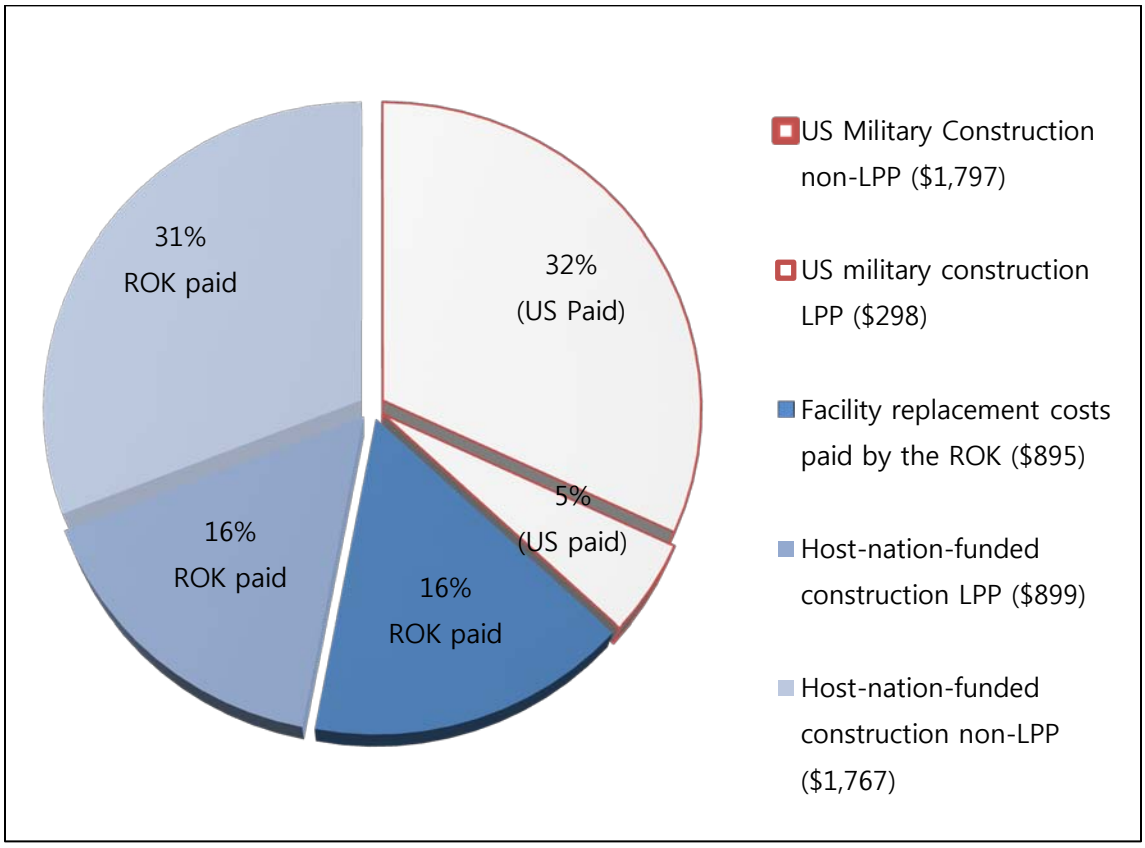
[31] In fact, US GAO (2003) report recommended the U.S. DoD to reassess the funding plan in accordance to with the U.S. future defense posture and to prepare a detailed infrastructure master plan in coping with the changing infrastructure plans for the ROK.

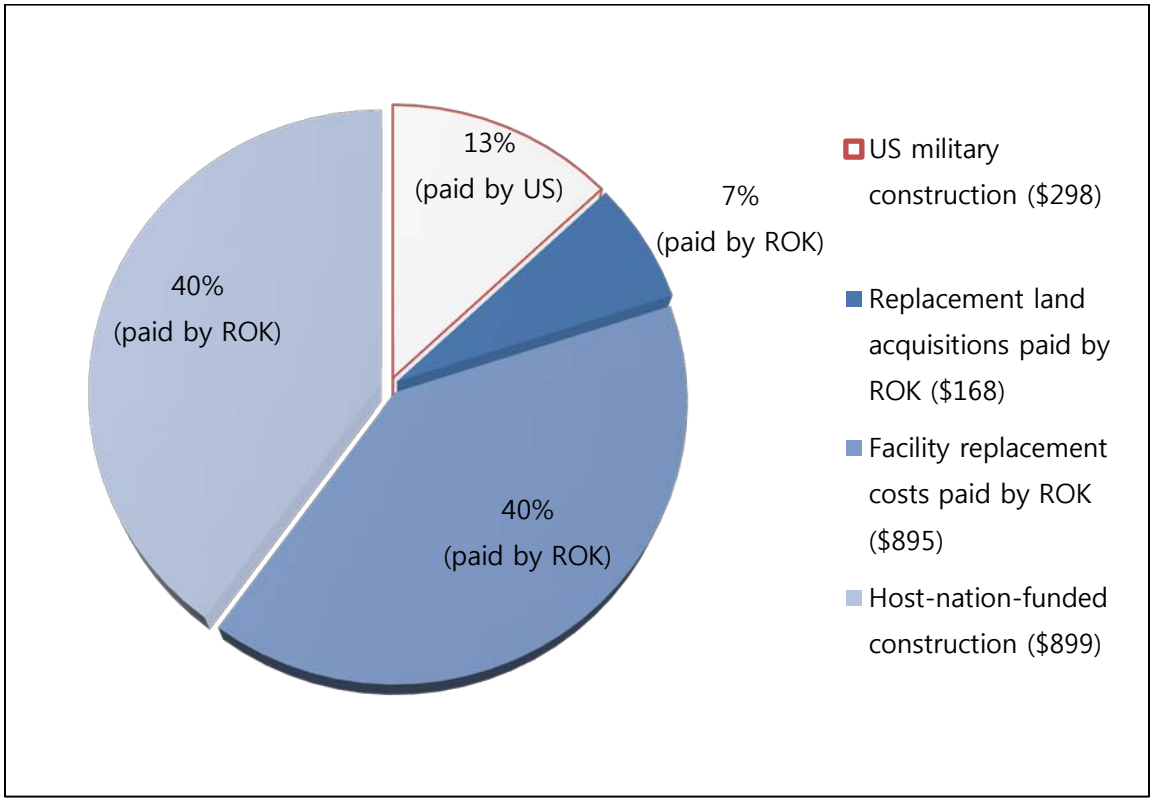
[32] Out of 41 U.S. bases and facilities, the replacement of 17 bases was responsible for the ROK government and the construction of 24 replacement facilities was funded by the U.S. DoD (LPP 2002).

Figure 5-1 Source of Funding for the Planned Infrastructure Construction Costs of USFK, Fiscal Years 2002-2011



Source: US GAO (2003) Defense Infrastructure: Basing Uncertainties Necessitate Reevaluation of U.S. Construction Plans in South Korea (10).

Figure 5-2 Land Partnership Plan Funding Sources, Fiscal Years 2002-2011



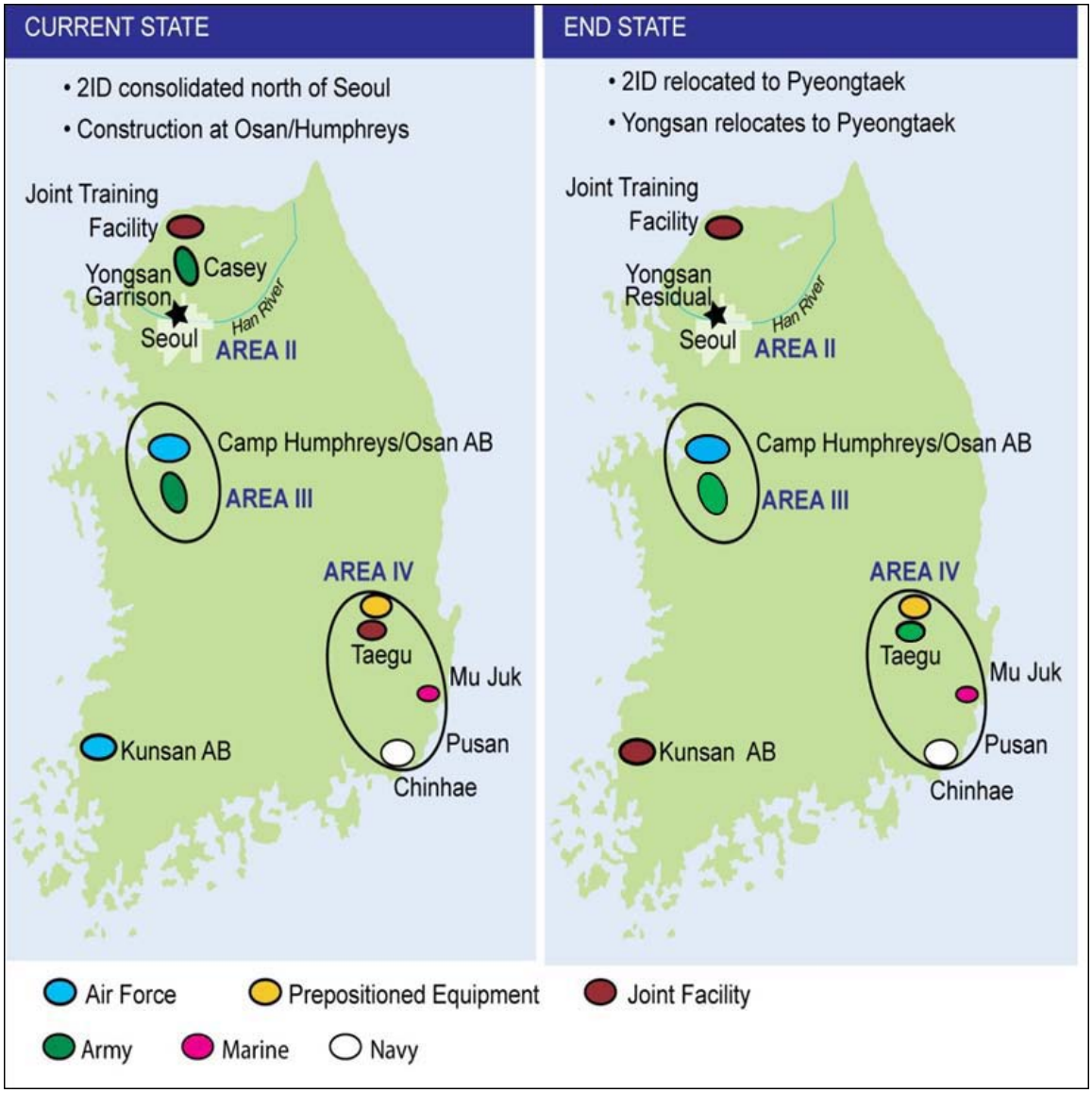
Source: US GAO (2003) Defense Infrastructure: Basing Uncertainties Necessitate Reevaluation of U.S. Construction Plans in South Korea (11).

granted to USFK. At the request of USFK, the 14,000-strong US Army 2nd Infantry Division, which provided troops to bases near the DMZ, would be relocated to the south of the Han River until 2016, shown in Figure 5-3. To share the relocating costs, both parties agreed that the ROK provides land and selected replacement and the U.S. funds selected facilities and moving expenses. For example, roughly 55% of $12.5 billion of total construction program was allocated to the ROK and 45% of the cost was paid by the USFK, in which the U.S. portion would be largely funded via the ROK's HNS program allocated to USFK (See Table 5-5).

The cost sharing behavior of the alliance has also been observed by increased military activities and financial support of the ROK in overseas operations led by the U.S. Since the Iraqi War in 2003, the U.S. government strongly requested allied support to enhance operational efficiency and to share the burden. Although the ROK government did not want to commit a costly military intervention for fear of alienating Arab oil suppliers, the Roh administration attempted to balance U.S. requests for military support against their need for U.S. cooperation in the North Korean nuclear standoff (Baltrusaitis, 182). To obtain U.S. consent to the policy for peace and prosperity" between the two Koreas, the ROK government decided to dispatch 3,600 troops by summer 2004. In addition, the Roh administration provided approximately $275 million in assistance, soft loans, and grants through UN organizations and bilaterally (U.S. DoS 2008). The ROK's initial pledge was $10 million in economic assistance taking a position on the Donor Committee of the International Reconstruction Fund Facility for Iraq (IRFFI).[33] The

[33] The Donor Committee consists of countries that have committed at least $10 million to the fund facility and also includes two rotating representatives from countries that have committed less than $10 million (US DoS 2008).

Figure 5-3 Consolidation Plan of the USFK installations



Source: US Army Corps of Engineers Far East District (2011)

Table 5-5 Summary of Estimated Costs of PACOM Posture Initiatives in South Korea

(Billions of US dollars)

	Estimated Costs		
Posture initiative[a]	United States[b]	Korea	Total[c]
Yongsan Relocation Program (YRP)	2.0 (24%)	6.3 (76%)	8.3 (100%)
Land Partnership Plan (LPP)	3.4 (85%)	0.6 (15%)	4.0 (100%)
28,500 US troops in Korea	0.2 (100%)		0.2 (100%)
Tour Normalization			
Total	5.6 (45%)	6.9 (55%)	12.5 (100%)

Source: GAO analysis of USFL and Army cost data

[a] Each initiative has a different starting date. The Yongsan Relocation was agreed to in October 2004; Land Partnership Plan was agreed to in March 2002; the 28,500 troop level agreement was announced in 2008, and tour normalization was started in 2007.

[b] Cost estimates prepared by USFK officials assumed the use of Special Measures Agreement contributions to help defray costs of these initiatives to the United States. According to USFK and State Department officials, the United States and South Korea are currently consulting on the extent to which Special Measures Agreement contributions will be applied to these initiatives. Special Measures Agreement contributions are funds provided or expenditures borne by South Korea to help defray the cost of locating U.S. military personnel in South Korea. Currently, those contributions are used for a variety of purposes—for example, Special Measures Agreement contributions can be used to reduce construction costs for new facilities and for sustainment costs of current facilities.

[c] Because some components of the cost estimates were presented as totals over some of the time periods and were not broken out by year, we were not able to convert these costs into constant dollars.

[d] Costs estimated by USFK through 2016.

ROK government increased $60 million by the time of the Madrid Donor Conference in October 2003 toward humanitarian assistance for Iraqi refugees and pledged an additional $200 million over five years.[34]

The ROK government deployed military personnel to Iraq in two phases in response to a request of the Bush administration. Although the ROK hesitated to send troops in light of domestic opposition, the ROK-US alliance and increasing tensions between the U.S. and North Korea led the Roh administration to decide to send troops in levels similar to the assistance given to *Operation's Desert Storm* and *Enduring Freedom* (Baltrusaitis, 192). In April 2003, the ROK MND dispatched 670 military engineers and medical personnel to Iraq supporting the U.S. military mission and increased its deployment by an additional 3,000 military personnel in August 2004. The second unit, the Zaytun division, was composed of 1,400 combat Marines and Special Forces commandos and 1,600 military engineers and medics responsible for security and reconstruction of the Kurdish Autonomous Region centered in Arbil (Hwang 2004). The division's mission was to reconstruct roads and infrastructure, offer vocational training assistance, provide medical treatment to local residents, and provide training to Iraqi Security Forces, which was the third largest military contingent in the coalition of the willing until late 2007. [35]

In sum, the burden sharing pattern of the ROK-U.S. alliance in the post-Cold War era represents the changed nature of alliance politics led by the unipole. First, the ROK

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[34] "Korea Commits $200 Million to Iraq," *The Korea Herald, October* 25, 2003.

[35] Major General Eui-Don Hwang. 2005. "Republic of Korea Forces in Iraq: Peacekeeping and Reconstruction," *Military Review*, no. 06.

needs to bear increased political and military burdens to maintain the balance of threat posed by North Korea. Although North Korea's threat – both conventional and nuclear – plays an important role in tying the hands of the ROK and the U.S. together, the imbalanced necessity of allied defense may lead the ROK to increase its defense spending until it possesses sufficient capacity to deter North Korea's threat. Second, the structure of cost sharing is transforming in a way that an ally whose alliance necessity is greater pays more burdens. In addition, the cost of alliance would take various forms of political and economic payments including both direct and indirect HNS, the coordination of defense policies, additional costs for the relocation of the U.S. bases, and dispatching combat forces to facilitate allies' overseas military operations.

5. 2. Japan

5. 2. 1. The US-Japan Alliance in the post-Cold War era

The U.S.-Japan alliance which was forged in the U.S. occupation of Japan after the World War II has provided a platform for U.S. military readiness in Asia-Pacific. The U.S.-Japan Security Treaty was signed during the Korean War in 1951 at the same time as the San Francisco Peace Treaty, which formally ended the Allied occupation of Japan, enabled U.S. troops to remain in Japan, and opened Japanese facilities as a staging area and logistics base for American forces (Hosokawa 1998). The Mutual Security Assistance Pact signed in 1952 was replaced by the 1960 Treaty of Mutual Cooperation and Security, in which Japan grants the U.S. military basing rights on its territory in return for a U.S. pledge to protect Japan's security (Chanlett-Avery and Konishi 2009, 2). During the Cold War, the U.S. regarded Japan as a strategically important ally to deter communist expansion, especially since the Soviet Union, China, and North Korea were considered a monolithic threat (Hosokawa, 2).

In the beginning of the post-Cold War period, however, Japan was criticized for its failure to provide direct military assistance to the coalition during the Persian Gulf War in 1990-91, despite its financial contribution of over $13 billion. Japan quickly responded by legitimizing the International Peace Cooperation Law of 1992 that permits Japanese participation in UN peacekeeping operations, and by reviewing its alliance relationship with the U.S. Since 1995 EASR emphasized the enhancement of Japan's responsibilities for defense cooperation as the most important U.S. ally in the Asia-Pacific, Tokyo and Washington singed the Japan-U.S. Joint Declaration on Security in 1996, revised the Guidelines for Japan-US defense cooperation in 1997, and joined U.S.

theater missile defense (TMD) research in 1998. However, the US-Japan alliance in the early post-Cold War period can be explained by a division of labor between the two allies. Japan increasingly assumed active political and economic roles in the region, while the U.S. maintained its stabilizing and balancing role (Harris and Cooper 2000).

The 9/ 11 terrorist attacks and the following American-led campaign against terrorism pressed the need for a joint and coordinated response to safeguard the common interest that Japan and the U.S. share (Perry and Yoshihara 2003). In particular, the Bush administration's new global strategy for the U.S. applied great pressure on Japan (and the ROK) to devote much of its energy to revitalizing alliance relationships with the U.S. For example, the 2001 Quadrennial Defense Review (QDR) emphasized Japan as the central ally of America's Asian allies asking for Japan's sustaining support to maintain credible forward-deployed forces in the region and enhanced security cooperation against the rise of China. In October 2001, the Japanese parliament passed the Antiterrorism Special Measures Law, which authorized the Self Defense Force (SDF) to provide logistical support to American and other militaries engaged in antiterrorist operations anywhere in the world, and adopted the Iraq Special Measures Law in July 2003, which authorized the SDF to provide humanitarian relief to Iraq and logistical support to American operations in Iraq (Katzenstein and Okawara 2004). Japan also purchased modern fighter planes such as the F2, developed spy satellites, and increased its budget for the TMD system, implying that Japan would play a more active role in regional security. That is, the mission of Japan's SDF is no longer simply the defense of the home islands, but it has expanded its geographic scope of military commitment beyond its own territory (Katzenstein and Okawara, 104).

The strategic importance of the US-Japan alliance has been fully addressed since the 2003 Iraqi War and the full scale of the U.S. GPR plan is implemented. In *The U.S.-Japan Alliance: Getting Asia Right through 2020*, Richard L. Armitage and Joseph S. Nye emphasized that the goal of "getting Asia right" would be dependent upon the future of the US-Japan alliance that is a keystone to achieving not only a stable, prosperous world order that best advances American interest but also "a balance of power that favors freedom" with which the region's leaders define their own national success in terms that are consonant with U.S. political and economic objectives (2007, 1). In May 2006, the U.S. and Japan agreed on a realignment plan of the U.S. forces in Japan (USFJ), with the so-called the *Roadmap for Realignment Implementation*. According to this plan, Japan would support $6.09 billion of the estimated $10.27 billion for the relocation of the U.S. Marine Expeditionary Forces (MEF) from Okinawa to Guam, in which $ 2.8 billion is paid in direct cash contributions (Yoda 2006, 938).

However, domestic opposition to the U.S. forces relocation plan and the leadership turnover from the conservative Liberal Democratic Party (LDP) to the progressive Democratic Party of Japan (DPJ) in 2009 brought difficult problems to the alliance agendas. Furthermore, increases in Japanese government's deficit, and a devastating earthquake and tsunami on Japanese soil on March 11, 2011 and the following economic recession made the future of the alliance more questionable (Chanlett-Avery at al. 2012). Considering a series of provocations from North Korea and indications of growing assertiveness from the Chinese military in disputed waters in 2010, it appears that overcoming current challenges to the alliance agendas and strengthening the bilateral partnership further are the most critical issues for the alliance leaders.

5. 2. 2. Necessity and Capacity of the US-Japan Alliance

Japan's sovereignty was recovered by concluding the San Francisco Treaty in 1951 with allied powers of the Second World War, which included the clause to grant the U.S. forces support to Japan when it is attacked. The revised security treaty in 1960, which remains in force up to the present, stipulated the U.S. obligation to protect Japan from external threat (Article 5) in compensation for Japan's obligation to provide the U.S. forces with facilities and areas in Japan (Article 6). Moreover, Japan's Constitutional constraint (Article 9) on the use of force, neighboring countries' (i.e., China and South Korea) sensitivities toward Japan's remilitarization, and anti-militaristic sentiment among Japanese peoples in the postwar era deepened Japan's security dependence on the U.S.-Japan alliance (Yoda 2005, 50).

> [Treaty of Mutual Cooperation and Security between Japan and the U.S., June 23, 1960]
>
> Article 5
>
> Each Party recognizes that an armed attack against either Party in the territories under the administration of Japan would be dangerous to its own peace and safety and declares that it would act to meet the common danger in accordance with its constitutional provisions and process.
>
> Article 6
>
> For the purpose of contributing to the security of Japan and the maintenance of international peace and security in the Far East, the United States of America is granted the use by its land, air, and naval forces of facilities and areas in Japan.
>
> [The Constitution of Japan]
>
> Article 9
>
> Aspiring sincerely to an international peace based on justice and order, the Japanese people forever renounce as a sovereign right on the nation the threat or use of force as means of settling international disputes.

> In order to accomplish the aim of the preceding paragraph, land, sea, and air forces, as well as other war potential, will never be maintained. The right of belligerency of the state will not be recognized.
>
> (Source: Perry and Yoshihara 2003, 42)

Different from NATO and the ROK-US alliance, one major feature of the US-Japan alliance is that Japan's obligation to support the U.S. when it is attacked is not stipulated and its logistic contributions to U.S. forces are confined within Japanese territories.[36] Such an asymmetric structure of mutual defense system has resulted in dominating a division of labor between Japan and the U.S. where the former provides the non-military contributions and the latter pledges military contributions to deter enemy forces. As a result, the military necessity of the alliance is far greater to Japan than to the U.S. For example, there was no joint strategy except for direct attack on Japan until the late 1990s and there has been no joint command structure for Japan's SDF and the USFJ (Yoda, 51). Thus, when the demands for security increase, Japan tends to increase its non-military contribution (i.e., provision of financial support) to the U.S. to reduce the imbalance of alliance contributions. Also, Japan's military dependence on the U.S. forces for its own security leads to an underestimate of Japanese contribution to the alliance although its financial support has been substantial since the 1980s (Daggett 1994).

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[36] For example, Article 5 of NATO treaty (1949) stipulates that "The Parties agree that an armed attack against one or more of them in Europe and North America shall be considered an attack against them all; and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defense recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems necessary, including the use of force, to restore and maintain the security of the North Atlantic area" (http://www.nato.int/terrorism/five.htm)

Given the structure of the U.S.-Japan alliance, Japan's necessity for allied defense increased drastically in terms of changes in the security environment in the post-Cold War period. For example, major shifts in the balance of power with the rapid growth of China, skewed distribution of economic and political power within and between neighboring countries, political and cultural heterogeneity, anemic security institutionalization, and widespread territorial disputes that combine natural resource issues with postcolonial nationalism are characterized as the dynamic nature of the East Asian security environment (Christensen 1999). In particular, a security dilemma between the U.S.-Japan alliance and China in East Asia since the end of the Cold War would drive them to take each side's precautionary and defensively motivated measures as offensive threats, sparking spirals of tension among them (Christensen, 49-50). To avoid entangling themselves in unprecedented militarized conflicts, the U.S.-Japan alliance also needs to extend its military functions to manage regionally potential disputes including the stability of the Korean peninsula, a China-Taiwan confrontation, and territorial disputes among Japan, China, Russia, and the two Koreas. Based upon the 1997 revised defense guidelines, the U.S.-Japan alliance extended its scope of security arrangement to "the Far East" to include "situations in areas surrounding Japan that will have an important influence on Japan's peace and security", without providing a conceptual and geographic denotation (Katzenstein and Okawara 2004, 112).

The provision of nuclear deterrence is another key feature of military necessity of the U.S.-Japan alliance. Although Japan has maintained *publicly* that it is constitutionally entitled to possess nuclear weapons for the exclusive purpose of self-defense since 1958, Japan has *practically* imposed constraints on its nuclear policy in terms of the Atomic

Energy Basic Law of 1953, the Three Non-Nuclear Principles in 1967 and the Four Nuclear policies in 1968, and its acceptance of International Atomic Energy Agency monitoring and adherence to the NPT since 1957 and 1976 respectively (Hughes 2007). Also, the legacy of anti-nuclearism amongst the Japanese population since the atomic bombings of Hiroshima and Nagasaki in 1948 prevented Japanese leaders from debating the utility of nuclear armament, while relying on the U.S. nuclear umbrella. For example, the former Japanese Prime Minister, Morihiro Hosokawa, emphasized that "both Russia and China, while weak in conventional military power, hold enough nuclear missiles to destroy Japan. It is legitimate to ask how Japan would counter nuclear blackmail. … Japan has no choice but to depend on the nuclear umbrella of an ally. It is in the interest of the U.S. so long as it does not wish to see Japan withdraw from the NPT and develop its own nuclear deterrent, to maintain its alliance with Japan and continue to provide a nuclear umbrella" (1998, 4).[37] Practically, the fear of Japan against nuclear threat accounts for Japan's decision to participate in joint research of TMD with the U.S. despite the military and political burden to the Japanese leadership.

Economically, the U.S.-Japan alliance has been regarded as a leading example in the success of the American alliance system during the Cold War and beyond (Armitage and Nye 2007). For example, it has been widely suggested that Japan's economic "miracle" in post World War II has been created, in large part, by avoiding high levels of military spending and concentrating on national economic policies through the alliance with the U.S. (Ward, Davis, and Lofdahl 1995, 27). Bobrow and Hill (1991) also argue

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[37] Hosokawa also emphasized that "[From] the Japanese perspectives, friendly relation with the U.S., the only remaining military superpower, are vital. Even if all common threats disappeared in the next century, the alliance would still be in Japan's interest" (1998, 5).

that Japanese defense spending is not driven by its military purpose but by its macroeconomic goals as well as the desire for political and economic cooperation with the U.S.

However, from the U.S. standpoint, Japan's security dependence on the alliance and its emphasis on economic cooperation increased the perception of Japan as a "free-rider" in the late 1980s and the early 1990s (Harris and Cooper 2000). In particular, Japan's initial non-responsiveness in the 1991 Gulf War and its reluctance to play a role in the Asian Financial Crisis raised U.S. concerns that Japan would not fairly contribute to alliance interests. Although Japan argued that Japan was not free-riding but rather pursuing mutual security objectives by non-military means, the U.S. has pressed Japan to increase its political and military responsibilities for regional security. The U.S. attitude toward Japan's alliance contribution, however, is not consistent but has fluctuated in terms of bilateral trade balance and economic conditions respectively. For example, when the trade imbalance between allies reached its peak and the U.S. suffered from an economic downturn in the 1980s, the U.S. government condemned Japan for its reluctance to contribute fairly. During the mid 1990s, the U.S. perception of Japan as a free-rider was improved with respect to the resurrection of the U.S. economy and Japan's economic crisis, as well as emerging concerns about a rising China.

Politically, the U.S.-Japan alliance has played an important part not only in legitimizing the U.S. presence in Asia-Pacific but also in determining various aspects of the bilateral relationship between the allies. As Christensen (1999) points out, the 1997 revised defense guidelines that highlight the scope of the alliance to be "situational" rather than "geographic" represent the enhanced political meaning of the alliance in the

post-Cold War era. Given historically-rooted mutual distrust among major actors in East Asia, the U.S.-Japan alliance is recognized as a keystone of stabilizing regional security among the Japanese citizenry. For example, a recent poll presents that 82 percent of Japanese have friendly feelings toward the U.S. although they would prefer to see fewer U.S. troops on their soil (New York Times, December 4, 2011). The reports also cited that 71 percent of respondents said they did not feel friendly toward China, recognizing that the U.S. presence in Japan is critical to keeping in check Japan's insecurities about the rise of China. In particular, the increase of tensions in Sino-Japanese relations after the Senkaku Islands dispute in September 2010 (or "Diaoyu" Islands by the Chinese) caused Japanese security officials more concern about Beijing's intentions and growing military activities in the East China Sea.

Japan's relations with South Korea are also an important factor driving the U.S.-Japan alliance. Despite the normalization of relations between South Korea and Japan in 1965, Japan's annexation of the Korean peninsula in 1910 and subsequent colonial rule for 36 years have prevented the U.S. from establishing a NATO-style regional security bloc in East Asia. Rather, U.S. bilateral relations with Japan and South Korea generated the triangular dynamic in Washington-Seoul-Tokyo relations (Cha 1999). That is, while Japan and South Korea have asymmetrical fears of abandonment and entrapment with respect to each other, they share the mutual fears of abandonment regarding the U.S. defense commitment to the region (Cha, 55). Particularly, the balance of the U.S. presence in South Korea and Japan – the U.S. ground combat forces are stationed in the Korean peninsula, and strategic air forces and naval bases including logistical support facilities are located in Okinawa – has increased the necessity of mutual cooperation not

through direct negotiation but through the context of bilateral alliance relations with the U.S.

North Korea's nuclear threat and the Taiwan Strait dispute are also closely associated with political and military implications of the U.S.-Japan alliance. North Korea has played a critical role in driving Japan's security policy to accept a more forward-leaning defense posture participating actively in the U.S. TMD plan (Chant-Avery 2011). After the second North Korean nuclear crisis, Japan launched its first spy satellite in 2003 in order to track the North Korean threat without relying on others' intelligence and also sent Japan's SDF as military observers to the U.S.-ROK joint military exercises after North Korea's artillery attack on South Korea's Yeonpyeong island in 2010. The case of the U.S. deployment of aircraft carrier battle groups from Japanese bases during the 1995-96 Taiwan Strait crisis also demonstrated that the U.S.-Japan alliance would play an active role in dissolving potential Beijing-Taiwan military disputes. Chinese analysts viewed aspects of the 1996 joint communiqué and the 1997 revised defense guidelines as troubling in Sino-Japanese relations because they can facilitate U.S. intervention in a Taiwan contingency through the alliance (Christensen 1999).

5. 2. 3. Japan's Alliance Burden Sharing

Japan has maintained a small portion of government spending on its defense, traditionally capped at 1% of GDP, despite increased demands for functional expansion of the U.S.-Japan alliance (Chanlett-Avery 2011). As seen in Table 5-6, Japan's defense spending has not surpassed 1% of GDP in the last two decades, implying that Japanese

Table 5-6. Military Spending of Japan (1991-2010)[a]

(Billions of Japanese Yen)

year	Military Expenditure	GDP	% GDP	Military Personnel	Population
1991	4,386	476,430	1.0	240	124,043
1992	4,552	487,961	1.0	237	124,452
1993	4,641	490,934	1.0	233	124,764
1994	4,684	495,743	1.0	239	125,034
1995	4,724	501,706	1.0	242	125,570
1996	4,846	511,934	1.0	242	125,864
1997	4,948	523,198	1.0	242	126,166
1998	4,940	512,438	1.0	236	126,486
1999	4,932	504,903	1.0	236	126,686
2000	4,936	509,860	1.0	240	126,929
2001	4,955	505,543	1.0	240	127,291
2002	4,956	499,147	1.0	240	127,435
2003	4,953	498,854	1.0	240	127,619
2004	4,893	803,725	1.0	240	127,987
2005	4,870	503,903	1.0	240	127,768
2006	4,812	506,687	1.0	240	127,770
2007	4,747	512,975	0.9	240	127,771
2008	4,769	501,209	0.9	240	127,692
2009	4,815	471,138	1.0	240	127,510
2010	4,790	481,773	1.0	240	127,510

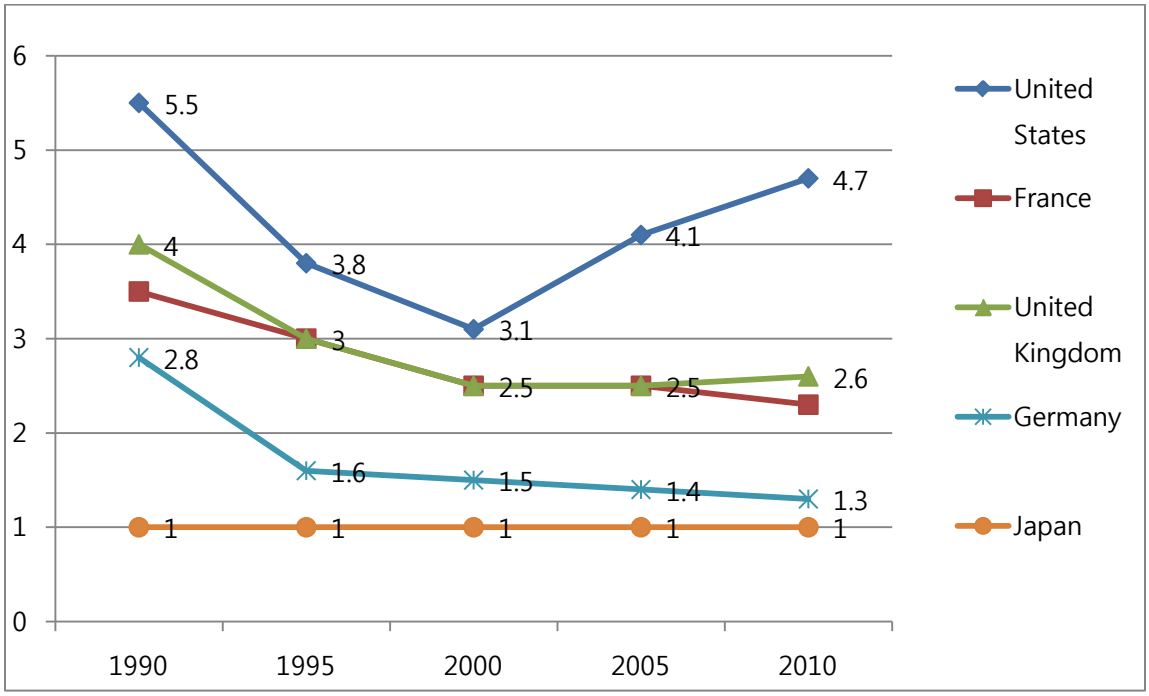
Source: Stockholm International Peace Research Institute (SIPRI), 2012; OECD (2012)

leaders are wary of this symbolic benchmark although the cap is not a law (Chanlett-Avery, 14). Descriptively, Japan's defense budget – the sixth-largest in the world at $51.4 billion in 2009 – has been far below the average of the U.S. major allies' defense spending. However, it is noteworthy that Japan has maintained its cap of defense spending although other U.S. major allies, particularly NATO members, have drastically decreased their defense effort (See Figure 5-4).

In accordance with overall reduction of military expenditure among the U.S. major allies, the inelasticity of Japan's defense spending seemed to be suspicious of remilitarizing Japan. For example, Liu Jiangyong (1998), one leading Chinese expert on Sino-Japan-U.S. relations, argues that Japan's military expansion with the support of the U.S. military presence in the 1990s would be an "egg shell," fostering the growth of Japanese military power under U.S. protection until it one day hatches onto the regional scene (Christensen 1999, 62). Also, the "egg shell" would reduce the function of the U.S.-Japan alliance as the "bottle cap," keeping the Japanese military genie in the bottle (62). As a response, China increased its defense spending markedly with approximately 13 percent of annual growth of military expenditure since the announcement of the 1997 revised defense guidelines (SIPRI 2012).

However, Japan's military spending behavior in the first decade of the 21st century appears not to be provocative to China's military build-ups. Rather, the function of the U.S.-Japan alliance is closer to the "bottle cap" than the "egg shell". Japan's military expenditure has not surpassed its traditional cap of 1% GDP despite China's efforts to modernize the People's Liberation Army (PLA). Instead, Japan tends to rely more on the U.S.-Japan alliance in coping with "situational" contingencies.

Figure 5-4 Defense spending as % of GDP, US Major Power Allies



Source: World Military Expenditures and Arms Transfers, U.S. Arms Control and Disarmament Agency, Washington D.C.; Military Balance (2011); SPIRI (2012)

Japan's contribution to secure the alliance with the U.S. started from 1978 by agreeing to provide financial support for stationing expenses of the USFJ. In principle, the Status of Forces Agreement (SOFA) of 1960 stipulates that Japan is obliged to grant the U.S. the right to "the use by its land, air, and naval forces of facilities and areas in Japan" without exceptional costs while the U.S. bears "all expenditures incident to the maintenance of the United States armed forces in Japan" (Yoda 2006, 939). That is, Japan has no legal obligation to provide financial support to the U.S. Forces stationed in Japan. When Japan's Defense Cabinet Secretary, Shin Kanemaru, and U.S. Secretary of Defense, Harold Brown agreed upon the allocation of stationing costs of the USFJ in November 1978, Japan called the HNS program *omoiyari yosan* meaning "sympathy budget" (Yoda, 939). According to this mutual agreement, Japan started to pay 7 billion yen (about $33.3 million) for the salaries of Japanese working on U.S. bases and the cost of facilities construction, which was included as a part of Japan's defense budget (940).

The legal basis was established in 1987 with the conclusion of the first Special Measure Agreement (SMA) between the allies because it had become difficult for the Japanese government to increase the size of the HNS further using Kanemaru's non-legal explanation of *sympathy budget* (940). Under the first SMA, the scope of the HNS was limited to the labor costs, provisional in period of five years. However, six instances of the SMA have been concluded between the allies, including the most recent one in 2011, by adding new support categories such as utility expenses (electricity, gas, and water) for the USFJ on a step-by-step basis and reflecting different contexts at the time (940). For example, rapid appreciation of the yen, a growing U.S. trade deficit against Japan, and U.S. criticism of Japan's free-riding in the late 1980s and during the first Gulf War were

considered. Since 1978, the budget for the direct HNS has increased from 6.2 billion yen to 244 billion yen in 2004 ($2.26 billion). When including indirect expenses such as land fees and compensation to the local community, the size of the HNS increased from $275 million to about $4.4 billion in 2002 (941).

In particular, the size of the HNS has drastically increased since the second SMA in 1991 (See Table 5-7). During the provisional period of the second SMA (1991-1995), Japan's share in local labor costs increased and reached 100% with extra payment for utilities (940). The U.S. DOD assessed that Japan's direct contribution of $1.3 billion to the stationing cost of the USFJ covered 76 percent of the funding required to base 45,000 U.S. troops on Japanese soil (Daggett 1994). During the same period, only Japan and South Korea contributed more than 70 percent of the expenses required for the U.S. forces stationed in their territory while the Western European allies paid less than 25 percent of stationing costs (See Table 5-8).[38] However, the U.S. Congress criticized the fact that Japan's contribution decreased at 46% of total basing costs of the USFJ when excluding rent, revenue foregone, and construction expenditures (Daggett, 11). In the third SMA from 1996 to 2000 which was concluded just after the announcement of the 1995 EASR report, Japan increased its contribution by paying the relocation cost of training sites for the USFJ (940). According to USFJ reports, in 1997 Japan provided between $0.9 and $1.5 billion (depending on the source) under the SMA for the costs of transferring U.S. training activities from U.S. bases to other facilities in Japan (US DoD 1999). With this additional support, the size of Japan's HNS reached its peak in 1997

[38] Since the late 1990s, U.S. DoD has been reluctant to present data on overall basing costs of the U.S. forces abroad.

Table 5-7 Japan's Host Nation Support to the USFJ (1991-2010)

(Billions of Japanese Yen)

Year	HNS[a]	ME	GDP	% ME	% GDP
1991	197	4,386	476,430	4.5	0.04
1992	202	4,552	487,961	4.4	0.04
1993	223	4,641	490,934	4.8	0.04
1994	248	4,684	495,743	5.3	0.05
1995	255	4,724	501,706	5.4	0.05
1996	267	4,846	511,934	5.5	0.05
1997	267	4,948	523,198	5.4	0.05
1998	267	4,940	512,438	5.4	0.05
1999	267	4,932	504,903	5.4	0.05
2000	267	4,936	509,860	5.4	0.05
2001	244	4,955	505,543	4.9	0.05
2002	244	4,956	499,147	4.9	0.05
2003	244	4,953	498,854	4.9	0.05
2004	244	4,893	803,725	5.0	0.05
2005	244	4,870	503,903	5.0	0.05
2006	249	4,812	506,687	5.2	0.05
2007	249	4,747	512,975	5.3	0.05
2008	249	4,769	501,209	5.3	0.05
2009	249	4,815	471,138	5.2	0.05
2010	249	4,790	481,773	5.3	0.05

Source: Japanese MOD (2012); Japanese MOFA (2012); Yoda (2006); OECD (2012)

[a]The value of the HNS is based upon each SMA concluded between the U.S. and Japan. The effect of currency value change is not considered.

Table 5-8 Host Nation Shares of the US Overseas Basing Costs

(current year dollars in millions)

	US Operating Costs	Host Nation Support	Total Overseas Basing Costs	HNS Percentage Share
Germany				
FY1993	4589	1662	6251	27%
FY1994	3369	1121	4490	25%
FY1995	3550	1142	4692	24%
United Kingdom				
FY1993	595	183	778	24%
FY1994	540	128	668	19%
FY1995	530	154	684	23%
Italy				
FY1993	567	90	657	14%
FY1994	599	87	687	13%
FY1995	609	85	694	12%
Japan				
FY1993	1393	3193	4586	70%
FY1994	1315	3393	4708	72%
FY1995	1313	4066	5379	76%
South Korea				
FY1993	844	1865	2709	69%
FY1994	865	1976	2841	70%
FY1995	877	2091	2968	70%
All Other				
FY1993	1987	239	2226	11%
FY1994	1812	204	2016	10%
FY1995	1702	178	1880	9%

Source: Department of Defense, “FY1995 Budget Estimates: Host Nation Support,” May 1994, p. 5(Daggett 1994, 6)

bearing roughly $5 billion in current year value (Harris and Cooper 2000).[39]

Since the fourth SMA (2001-05), Japan's contribution has been stabilized maintaining its share of stationing costs of USFJ at 75% level, or slightly decreased in accordance with its economic situation and various constraints of domestic politics. In the most recent SMA concluded in December 2010, Japan agreed to continue HNS at current levels for the next five years, starting in FY2011. The agreement came as a compromise, as the Kan government had been pressured to cut Japan's contribution due to Japan's ailing fiscal health (Chanlett-Avery 2012, 16). The current agreement calls for Japan to pay about 188 billion yen annually (about $2.2 billion) through FY2016 to defray the costs of stationing troops in Japan, decreasing Japan's overall contribution from 76% to 72% over a five-year period (16).

Another point of reference that represents Japan's burden sharing effort to the U.S.-Japan alliance is its contribution to transforming the U.S. military posture in Japan, Okinawa, and Guam. Based upon an October 2006 Government of Japan budget estimate study for realignment costs and limited cost information developed by DoD, in 2011 the U.S. Government Accountability Office (GAO) estimates approximately $29.1 billion – primarily construction costs – that is anticipated to be shared by the U.S. and Japan. Table 5-9 demonstrates an estimated cost sharing for the relocation of the U.S. bases in Japan and Guam. It is noteworthy that Japan is responsible for all the expenses required for relocating and constructing U.S. bases in Japan. Although the U.S. Pacific

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[39] According to the U.S. DoD's 1999 *Statistical Compendium to Report on Allied Contribution to the Common Defense*, Japan is the most generous of any U.S. ally covering cost sharing in support of U.S. forces for 1997 ranging from $3.7 to $4.3 billion ($4.9 billion according to State Department sources), and covering 75% of U.S. basing costs.

Table 5-9 Summary of Estimated Costs of PACOM Posture Initiatives in Japan

(Billions of US dollars)

	Estimated Costs		
Posture initiative[a]	United States[b]	Japan	Total[c]
Carrier air wing, moving from Atsugi to Iwakuni	Not yet estimated	1.4 (100%)	1.4 (100%)
Camp Zama/ Sagama Depot	Not yet estimated	0.3 (100%)	0.3 (100%)
Aviation training relocation	Not yet estimated	0.3 (100%)	0.3 (100%)
Yokota Air Base and Air Space	Not yet estimated	No costs estimate provided	
Okinawa consolidation	Not yet estimated	4.2 (100%)	4.2 (100%)
Futenma Replacement Facility	Not yet estimated	3.6 (100%)	3.6 (100%)
Roadmap agreement (Guam)	4.2 (40%)	6.1 (60%)	10.3 (100%)
Additional costs (Guam)	7.1 (100%)		7.1 (100%)
Total	11.3 (42%)	15.9 (58%)	27.2 (100%)

Source: GAO analysis of cost data provided by DOD officials (2011).

[a] According to USFJ and OSD officials, DOD is in the process of developing cost estimates for these initiatives. These costs may include, among other items, the cost to outfit, furnish, and maintain buildings constructed by Japan and to move personnel and equipment into consolidated locations.

[b] USFJ information drawn from an October 2006 Government of Japan budget-estimate study for realignment costs covering Japan's fiscal years 2007 through 2014, using a conversion rate of $1 USD = ¥ 111.

[c] Anticipated funding in U.S. fiscal year 2008 dollars, as stipulated in the *United States-Japan Roadmap for Realignment Implementation*, May 1, 2006.

[d] The Marine Corps has estimated these additional costs to complete the relocation of Marines from Okinawa to Guam; however, they have not been validated by the Department of Defense.

[e] Initiatives listed cover different time periods. Japan initiatives were estimates of Japan Fiscal Years 2007 through 2014, Bi-lateral agreement costs were 2006 through 2014, additional Guam requirements were over an unspecified period of time, Northern Mariana Islands Training Range

Command's (PACOM) contribution is not estimated[40], Japan agrees to provide $9.8 billion with the USFJ under the *U.S.-Japan Alliance: Transformation and Realignment for the Future* concluded by the Security Consultative Committee (SCC) on October 2005.[41]

In May 2006, a *U.S.-Japan Roadmap for Realignment Implementation* was released providing details on the approved recommendations for realignment, in which the construction and other costs for facility development would be borne by the Japanese government unless otherwise specified (GAO 2011, 22). The Roadmap also stated that the operational costs would be borne by the U.S. government and the two allies agreed upon consistently cooperating to share additional burdens associated with the realignment implementation (22). In particular, the contribution of the Japanese government was expanded beyond its own territory by providing $6.1 billion (60% out of total $10.3 billion) with the U.S. Marine Corps units for relocating to Guam and constructing new bases. Although the impact of the ensuing tsunami and nuclear reactor incidents on the U.S.-Japan realignment roadmap is not yet known, it is important to address the fact that Japan's logistical support for the alliance is not confined to its national defense but is expanding to establish regional defense posture of the alliance.[42]

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[40] US DoD has not estimated the cost of posture initiatives in Japan since it is unable to ensure that all costs are fully accounted for or determine if resources are adequate to support the program (GAO 2011, 21).

[41] See Joint Statement, U.S.-Japan Security Consultative Committee (Washington, D.C.: Feb, 19, 2005)

[42] In FY2011, Japan's MOD allocated $1.5 billion as the costs of realignment of the U.S. bases (http://www.mod.go.jp/e/d_budget/pdf/230401.pdf)

In addition, Japan has been recognized as the most generous and credible contributor sharing burdens for the common defense, especially to the U.S. government. Japan's contribution to foreign assistance increased from $51.5 million in cumulative years 1990-93 to $9.5 billion in 1999 and continued to maintain slightly less than $10 billion since then. In addition, Japan's financial support for multinational peacekeeping operations increased from $411 million in 1993 to $541 million in 2002. In FY2009, Japan was the second largest contributor next to the U.S. for the UN PKO annual budget with $340 million. Its military activities have been increased after the passage of a bill in 1991 to allow for participation in UN PKO. The Japanese SDF were dispatched to Cambodia, Mozambique, East Timor, and the Golan Heights (Chanlett-Avery and Konishi 2009, 3).

Japan also has been one of the largest financial contributors supporting U.S. overseas military operations in the post-Cold War period. In the U.S.-led 1991-92 *Operations Desert Shield/ Storm*, Japan pledged to financially contribute over $13 billion. Early in the crisis, Japan earmarked $2 billion dollars for the front-line states and directed $22 million dollars toward refugee assistance, and later pledged another $38 million. Separately, Japan designated $11 billion for direct assistance to the multinational forces (US DoD 1992). Also, the Japanese SDF provided in-kind airlift and sealift support to the U.S. forces during the first Gulf War in which the Japanese forces performed 539 instances of missions of lifting, in which the estimated total value of missions was approximately $0.8 billion (US DoD 1992).[43] In the 2003 *Operation Iraqi Freedom*,

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43 The Republic of Korea also actively participated in this in-kind airlift and sealift operations supporting the U.S. forces. The ROK forces performed 1,465 instances of missions and the estimated value contribution was $0.8 billion (US DoD 1992).

Japan pledged to provide $3.4 billion in support of Iraq reconstruction funds in the form of loans (GAO 2007). Additionally, Japan donated $1 billion as a bilateral grant to Iraq for reconstruction.[44]

In sum, Japan's post-Cold War alliance burden sharing behavior results from the changed security environment and the constraints of domestic politics. Foremost, structural shift to a unipolarity increases demands of Japan's contribution for the alliance but its scope is limited to both direct and indirect financial support to the USFJ and its foreign operations. While maintaining its 1% cap of military spending as a proportion of GDP, Japan increased its share of the alliance burdens in the form of the HNS, direct contribution to the relocation costs of the U.S. bases in its territory and beyond, and multinational peacekeeping operations and economic aid. However, it is important to address that Japan's contribution has been made by the allocation of its defense expenditure, but not by an increase in the size of defense spending. According to U.S. defense officials, Japan should expect to pay up to $20 billion for the realignment implementation costs alone (Chanlett-Avery 2011, 14). If costs of this initiative come from Japan's military budget, Japan's military could face degraded capability because Japan's plan of purchasing expensive equipment and strengthening its own military capabilities will have to be forgone (14).

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[44] The total grant were $2.3 billion including $1 billion from Japan, $775 million from the United Kingdom, $153 million from South Korea, $110 million from Canada, and $100 million from Spain, those were all the U.S. allies (Baltrusaitis 2008, 18).

CHAPTER VI

CONCLUSION

The unprecedented unipolar system followed by the end of the Cold War has lasted over two decades. With a structural shift to the American-led unipolarity, alliance politics is experiencing substantial changes from a *structural* "threat-based" to a *non-structural* "capabilities-based" relationship. In the absence of structural constraints that have predetermined the role and function of alliances, alliance relations are entirely dependent upon the combinations of each ally's specific security interest. Although the contemporary U.S.-centered alliance system is originated from the Cold War confrontation, the efficiency of the alliance is intrinsically different. First, a preponderance of power maintained by the unipole gives the U.S. authority to indentify both possible sources of threat and the potential allies (Walt 2009, 86). A reshaped unipolar distribution of power also has transformed the nature of intra-alliance bargaining, based on the necessity of allied defense and the availability of alternative options that are determined by an ally-specific security context and its own capabilities. Lots of localized non-structural threats that had been managed by strategic interests of the two system leaders during the Cold War era must now be handled by the states that are involved geographically and strategically. Otherwise, traditional U.S. allies should provide increased burdens to the alliances in compensation for the assurance of the U.S. security protection. In this sense, behavioral change in alliance burden sharing is the most dominant indicator representing the nature of unipolar alliance politics.

Utilizing a multi-methodological analysis, this project has successfully demonstrated that economic incentives of alliances and the subsequent alliance burden

sharing are structurally proffered by the variations in international system polarities, and restructuring alliance burden sharing plays a critical role in explaining the changed behavioral characteristics of unipolar alliances. At a systemic level analysis, empirical test results demonstrate that the predicted cost sharing behavior by a joint product model and a portfolio benefit model dominates multipolar alliances while a tendency of free-riding predicted by a public good model prevails in bipolar alliance system. In the first decade of unipolarity, a mixed outcome is produced in which only the U.S. minor allies are benefited from the alliance reducing their defense spending. At an alliance-level analysis, case studies of South Korea and Japan present that the necessity of the alliance relationship with the U.S. and their relative capabilities to achieve security purposes lead them to increase the size of direct economic investment to support the U.S. forces stationed in their territories, as well as to facilitate the U.S. global defense posture. In addition, these two countries have increased their political and economic contribution to the U.S.-led military operations beyond the geographic scope of the alliance in the post-Cold War period.

This project provides important implications on the contemporary unipolar alliances. Foremost, alliance relations will continue to play a significant role in maintaining systemic stability in a unipolar world. Although the dissolution of structural threat diminishes the cohesiveness of alliances, alliances are still an important tool of legitimizing the presence of the U.S. forces in allied territories and maintaining its power preponderance. The alliance relationship with the unipole also influences not only an ally's foreign policy decision-making but also the mobilization of domestic support and the articulation of security interest. In the beginning of the post-Cold War era, the

continuation of the Cold War alliance system in the absence of structural threat draws academic attention, to some extent, to non-structural aspects of alliances and the affinities shared by allied members in order to account for the nature of unipolar alliances. As Snyder (1997) has remarked, however, “alliances have no meaning apart from the adversary threat to which they are a response” (192). In other words, on-going transformation of unipolar alliance politics is a function of non-structuralized, regional threat and strategic response of actors based on their private security interest.

Second, behavioral changes among the U.S. allies in response to demands for sharing alliance burdens directly indicate the changed nature of unipolar alliances. In order to maintain its power preponderance and primacy, the unipole has imposed greater pressure on its allies to devote much of their resources and energy to contributing to its global defense posture. More importantly, the unipole employs multidimensional indicators of alliance burden sharing as yardsticks to assess the strategic validity of each alliance, based upon its private security interests, and sometimes impure public interest. Alliances are costly commitment in terms of restricting an ally’s autonomy or allocating more resources to allied defense in the hope of enhancing national security. Although the allies who are in need of U.S. protection tend to increase their share of alliance burden, there is no concerted, appropriate level of contribution because only the unipole has the authority to determine the standardized level of burden sharing. Therefore, too much pressure on the allied states to share burdens may cause intra-alliance tension exacerbating domestic opposition from the minor allies to alliance relations.

Then, the question of how the alliance burdens are fairly shared becomes more dependent upon political and economic relationships between the unipole and its allies

than an articulated balance of cost and benefit. In the sense that the level of burden sharing is determined by the interaction of allied states, unipolar alliance politics is different from the imperial tribute system. However, it is expected that the systemic properties of unipolarity – non-structural threat and a power preponderance of the unipole – gradually increase the political and economic burdens of the allies in need of maintaining alliance relationships with the unipole.

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