

# **Explaining the Relationship between Foreign Policy Substitution & the Distributional Dilemma<sup>°</sup>**

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Abstract : This paper provides an explanation for foreign policy substitution rooted in leaders' need to balance between guns and butter in the wake concerns about personal political survival. Demands for social goods (butter) should inspire survival seeking leaders to shift resources away from military expenditures and towards alliance policies because observed alliances are efficient security policies (Palmer and Morgan 2006), thus providing both a causal mechanism and theoretical explanation for foreign policy substitution. The main contribution of this research program is to provide a link between foreign/security policy behavior and the demands of the welfare state thus linking domestic politics to foreign policy behavior. An analysis of state-level military expenditures after 1950 for all countries provides support for these claims.

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## **I. Introduction**

This project builds upon earlier research (Author 2006) linking two areas of domestic politics to the study of interstate cooperation and as such it provided a firm theoretical basis for why states might form international alliances for reasons other than security concerns. That explanation suggested a leader's dual concerns with personal political survival (Buono de Mesquita et al. 2003) and the need to provide appropriate amounts of social security goods and national security goods (Powell 1999) might inspire leaders to form interstate alliances when minimal threats to state security exist. That claim is important insofar as it explains security based cooperation in the absence of international security concerns and, as such, it provided an explanation for why states might coordinate security policies in times of low international tension.<sup>1</sup> Thus, leaders might "out-source" some portion of their national security burden through the formation of international alliance contracts.<sup>2</sup>

The argument advanced by the contracting explanation of alliance formation suggests how state leaders can manage the guns-butter dilemma and simultaneously keep their own political futures secure. Leaders care about retaining political power and their capacity to retain office is shaped by the size of their minimum winning coalition (MWC).<sup>3</sup> Large MWCs require leaders to supply public goods and create efficient policies so that those larger numbers of constituents can be kept satisfied. Thus, demands from a leader's constituents should inspire leaders to re-allocate resources so demands can be met and the leader can retain power. What this claim really suggests is that domestic demands for greater spending on social security policies shape how leaders design security policy. Leaders may choose to form alliances even absent national security threats as a way to reduce the longer term

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<sup>1</sup> Examples of alliances that can be characterized this way include: 1893 Austria-Hungary and Yugoslavia; 1901 Italy-Romania; 1924 France-Czechoslovakia; 1976 Gambia-Mali, each of those alliances were among states that shared one or no rivals and experienced numbers of disputes in their relevant environment lower than the average (for more information see Author 2006).

<sup>2</sup> Henceforth, I will use the contracting explanation to refer to this argument.

<sup>3</sup> The minimum winning coalition (MWC) concept comes from research by Buono de Mesquita and colleagues (1999, 2003) which suggests that the MWC is the smallest size group of individuals whose approval is required so that the leader may retain office.

defense burden the state has to shoulder, so more resources can be directed to domestic demand like the demands of the welfare state. Political leaders may determine they can more efficiently produce national security this way and provide greater domestic security and protect their own chances of remaining in power. The contracting explanation claims states form alliances to increase the efficiency of their security policy allocations and, more specifically, so that the security resources freed through alignment can be allocated to domestic demands for social security policy expenditures. Morgan and Palmer argue observed alliances are efficient security policies since they provide security goods with fewer resources (2003; Palmer and Morgan 2006).

The claims put forward throughout this paper suggest a causal process by which leaders pursue political survival. Their efforts toward political survival suggest they shift resources among policies in ways implying what foreign policy scholars have long called foreign policy substitutability. Thus, domestic demands for social security expenditures determine how leaders allocate resources across the sources of security within their security policy portfolios. This is a key claim of the paper since it implies an important link between the contracting explanation and the political economy of security expenditures suggesting the contracting explanation can be applied as much to security studies as it can be applied to peace research. This paper will proceed as follows: first, I examine substitution and complementarity; second, I present what the contracting explanation suggests about the relationship between arms and alliances; third, I suggest some hypothetical expectations and design an empirical model to test the claims of the contracting explanation; and, finally, I present the findings and discuss conclusions.

## **II. Claims about the Relationship among Foreign Policy Tools**

Understanding the relationship between the tools which leaders have available for foreign policy is important if our goal is to understand under what conditions leaders select one foreign policy tool over other possible tools. In fact, “when states are faced with similar situations, threats, or other

kinds of environmental phenomena, they choose from a menu of foreign policy responses” (Diehl 1994, 160). Implicit in this claim is not only that different foreign policy responses arise from the same stimuli (Most and Starr 1989, 98), but also that the responses are similar in the goals they wish to achieve. Most existing research suggests there are two possible relationships between these foreign policy tools. If states select a single foreign policy from a set of choices, this could mean the relationship between these options is characterized as zero-sum, where an increased chance of engaging in one policy is related to a decreased chance of engaging in the alternative policy. However, suppose leaders design their security portfolios by mixing across the various security policy alternatives (consistent with the claims of Baldwin (1985)) suggesting these policies or goods are complements rather than substitutes where an increased chance of engaging in one policy alternative increases the chances a state engages in another policy alternative as well. Complementarity assumes the goods are somehow interconnected and is also consistent with my claim that domestic demands for social security policy expenditures determine how leaders balance their security policy portfolio between arms and allies. “As with substitution, complementarity assumes that the two options are often designed to meet similar goals, but they necessarily go together (cooperation) rather than being rival in meeting that goal” (Diehl 1994, 162). Complementarity suggests states select an efficient balance between the sources of external security. In fact, alliances involving the stationing of troops or the provision of arms among the signatories may actually lead to increased military expenditures. Furthermore, Oneal (1990) has suggested when states that are militarily capable enter into an alliance with weaker states they may have to increase their defense expenditures to account for the “free riding” of the weaker states, thus “the alliance has a complementary effect for the larger state and a substitution effect for the smaller state” (Diehl 1994, 162). The contracting explanation suggests that demands for social security allocations (the same stimuli) will determine how states allocate resources between arms and allying. Thus, there is a complementary relationship between arming and allying explicit in the framework of the contracting explanation, however the contracting explanation also expects under conditions of

domestic demand leaders will shift resources from military expenditures to alliance policies. Thus, a major contribution of this theory its ability to explain why leaders substitute among complementary foreign policy alternatives, because of domestic demands, and to explain the direction of the substitution between those complementary goods, leaders substitute alliances for military expenditures according to this framework.

### **III. The Contracting Explanation explains the Relationship among Foreign Policy Tools**

I begin with a simple claim—the relationship between arming and allying is complementary. If possible, states will almost always engage in both activities and will not limit their security portfolio by supplying exclusively one type of security good. However, what is important to scholars of foreign policy is an understanding of how, when, and why states strike the balance between these foreign policy tools. Fortunately, the contracting explanation can provide some guidance to our understanding of how and why leaders balance between foreign policy tools.

Though there exists a vast literature on the relationship among foreign policy tools (Most and Starr 1989; Morrow 1993; Diehl 1994; Palmer and Souchet 1993; Morgan and Palmer 2003; Palmer and Morgan 2006),<sup>4</sup> much of the existing literature is limited 1) in its theoretical development in that it lacks a specific causal mechanism shaping when leaders will substitute policies and 2) in its applicability across countries as existing research analyzes some subset of countries (e.g. rivals, great powers etc.). Thus, a major contribution could be made 1) by developing a theory specifying what causes (or why do) leaders so select some security policy alternatives over other at a particular time and 2) by analyzing the implications of these claims systematically on a broad set of cases.

The contracting explanation provides a causal mechanism to explain policy allocations—leaders' balance among/substitute between guns and butter in ways most likely to assure political

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<sup>4</sup> See also the Journal of Conflict Resolution Special Issue on Foreign Policy Substitution (Vol. 44, Issue 1) as well as Clark and Nordstrom (2005) and Clark and Reed (2005).

survival while providing national security and social welfare. In particular, I expect states to substitute between arms and alliances because shifting toward alliances allows leaders to allocate more resources to domestic security, and thus toward their political survival, because of the efficient production of national security. Leaders strike the balance by shifting resources from arms to butter but replace the protection those arms afforded them with alliances. This is the efficiency issue – states strike the balance between arms and alliances by choosing the most efficient means of producing national security (really, the most efficient joint production of national and domestic security). Leaders strike this balance between arms and allies in order to retain political power and, in fact, if political survival becomes a concern—then leaders should seek more efficient policies to produce both guns and butter. Additionally, previous research (Author 2006) points fairly clearly at what factors lead states to shift toward alliances rather than arms *ceteris paribus*; size of selectorate and domestic demands (captured by the Infant Mortality Rate). Political survival becomes a concern for leaders when domestic demand is high and/or when the selectorate is large. So survival forces leaders to worry about efficiency which forces them to strike an efficient balance between guns and butter which they achieve by more efficiently producing national security, through ‘contracting out’ security to allies. These claims suggest even though arms and alliances are complements, leaders under certain circumstances will substitute toward alliances. Figure 1 provides an intuition as to the relationship between arms and alliances as shaped by domestic demand for social security policy expenditures.

[Figure 1 about here]

Figure 1 indicates domestic demands for social security expenditures should increase the chances an alliance is formed and have a negative affect on changes in a state’s level of military expenditures. Additionally, this figure suggests the probability an alliance is formed is negatively associated with changes in a state’s level of military expenditures. Thus, domestic demands provide a mechanism for shaping how leaders design their security policy portfolios because leaders care about designing efficient security policies so they can increase their chances of retaining office.

That domestic demands and selectorate size affect both alliance policies and national security allocations is the major theoretical contribution of this paper since I provide a parsimonious link between domestic politics and international politics. That link between domestic and international politics is based on the realistic assumption that leaders pursue policy options which should increase their chances of retaining political power. Not only does this project provide a new explanation of alliance formation, it also adds a clear causal claim to arguments about foreign policy substitutability that can be tested.

#### **IV. Expectations**

Preliminary evidence has been presented to support the expectation that domestic demands for social security expenditures should increase the chances a pair of states forms an alliance (Author 2006). Since existent evidence supports the claim that domestic demands affect alliance formation decisions within states, those same domestic demands must affect decisions about allocations towards national security expenditures since arms and alliances comprise the security portfolio for states. In fact, domestic demands for social security policy expenditures should inspire leaders to shift resources away from military expenditures and towards alliance policies; however, this shift will occur at the margins. In particular, I do not expect states will purely substitute these security goods since all states must retain some level of national security. Yet, it should be the case that forming alliances affects the rate at which states spend on the military. Therefore, alliances should be inversely related to changes in security policy expenditures.

Thus, the genuine test of the microfoundations of the contracting explanation would be an examination of how domestic demands for social security expenditures affect the rate at which states change their military expenditures over some defined time period. Those domestic demands for social security expenditures require some action by leaders or leaders will be punished electorally in the future (i.e. they will lose political power). But responding to that demand is difficult for leaders

because resources are finite. So in order to spend more on social security and to alleviate the burden of the domestic demand, leaders have to shift resources away from national security expenditures. Leaders do this by producing security more efficiently via alliances. Thus, domestic demands are the trigger forcing leaders to re-shape their security policy portfolios. However, since adjustments in security policies are only likely to occur at the margins, I expect increasing demand for social security expenditures should negatively affect the rate of change in military expenditures because those demands should force leaders to decrease the rate at which states spend on security in order to increase allocations towards social security expenditures. Or, in other words, constituent demands in the current year should negatively affect military expenditures in the next several years resulting in a negative effect on the rate of change in military allocations over time. In fact, since the policy allocation process is slow and cumbersome I expect the response of leaders to the demands to take some time so the effect of domestic demands for social security policy expenditures should affect the rate of change in a state's military expenditures in the coming several years. Thus, the level of domestic demand for social security expenditures from the past year affects the rate of change in military expenditures. This claim suggests domestic demands affect adjustments in military expenditures near the margins. Nonetheless, I expect—

*Military Spending Hypothesis 1: Previous domestic demands for social security expenditures should negatively affect the rate of change in military policy expenditures.*

So domestic demands for social security expenditures should increase the probability an alliance is formed based on earlier research (Author 2006) and decrease the rate of change in military expenditures suggesting those domestic demands shape how leaders allocate resources across the sources of security in their security portfolio. Moreover, alliance formation ought to be negatively related to the rate of change in military expenditures, since if states do form alliances to increase security policy efficiency, then alliances ought to affect the rate at which states adjust resources in the security realm. And the probability of an alliance should the affect rate at which states alter security

expenditures because expectations of security efficiency to be gained through allying allow leaders to circulate resources away from security demands and redistribute them towards domestic demands for social security policies. Again, these are factors influencing small changes in behavior so it is entirely possible a relationship cannot be determined because the effects are too negligible, however, at a minimum, the probability an alliance is formed should not be positively related to the rate of change in military expenditures. Since alliance policies and military expenditure policies are inter-connected decisions for states, the potential for the formation of an alliance should not increase the rate at which states change their military expenditures because resources freed by alliance formation are taken from military expenditures should be allocated towards domestic demands—thus, alliance formation should negatively affect the rate of change in military expenditures. Thus, I anticipate-

*Military Spending Hypothesis 2: The probability of alliance formation should be negatively associated with a state's rate of change in military expenditures.*

The two major expectations of the contracting explanation with respect to military expenditures have been discussed. The next section will detail how these claims might be linked to an econometric model to examine the alliance formation and military expenditures processes individually and simultaneously.

## **V. Modeling the Claims of the Contracting explanation**

Previously estimated models of alliance formation were dyadic in nature (Author 2006; Lai and Reiter 2000; Simon and Gartzke 1996). However, since policy decisions about how to allocate resources between alliances and military expenditures are in reality individual state decisions, the models reported here will use the individual state as the unit of analysis. This results in 9,745 state-years for all states between 1950 and 2000. In this section, I present results for the factors that affect state-level alliance decisions.

[Table 1 about here]

Table 1 examines state alliance formation behavior as specified by the models previously reported (Author 2006) based on dyads as the units-of-analysis.<sup>5</sup> The second column of Table 1 provides the corresponding hypothesis from prior research (Author 2006) and expectation being examined.<sup>6</sup> Model 1 nearly replicates previously reported models (Author 2006) while omitting dyadic factors such as relative capabilities and the log of distance between states. There is one important inference to be drawn from these results—domestic demands for greater spending on social security policy allocations tend to increase the chances a state allies providing continued support for the contracting explanation. The only other factor affecting an individual state’s decision to ally in Model 1 is its number of rivals. Model 2 includes an additional measure of threat, a state’s capability ratio relative to other states in its Politically Relevant International Environment (PRIE) (Maoz 1996, 1997). Results from Model 2 provide support the expectation that as a state increases its power preponderance relative to its PRIE, then it is more likely to ally. Finally, basic expectations about the effect of domestic demands for greater spending on social security policies and rivals continue to receive empirical support re-affirming the prior findings (Author 2006).

Returning to Figure 1 to ideally capture the process I have envisioned might require a simultaneous equation technique where there is one model to capture the alliance process and another model to capture changes in military expenditures. However, a major problem associated with a simultaneous technique would be identifying the system of equations since I have claimed that arms and alliances are complementary—that is they are caused by the same stimuli—it would be difficult to

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<sup>5</sup> Alliance formation data were created from the Alliance Treaty Obligations and Provisions dataset (Leeds et al. 2002). Other data are taken from EUGene (Bennett and Stam 2000) and Stinnett and Diehl (2001). Additionally, time splines were implemented in the probit models to account for temporal contagion (Beck, Katz and Tucker 1998).

<sup>6</sup> Data and operationalization of the variables used in these models are discussed in earlier work (Author 2006). This table adds a new explanatory variable related to threat into the model of monadic alliance behavior. As a state becomes more powerful relative to its PRIE, it should be more likely to ally in order to institutionalize the status quo.

identify exogenous variables that might predict alliance behavior but not military spending behavior or vice versa. Moreover, since one dependent variable is binary and the other is continuous, I cannot use a two-stage least squares technique (used for two continuous DVs) or a multiple equation probit model (used for two binary DVs) or an instrumental variable probit (since my interest is in the continuous variable reflecting military expenditures). Additionally, a Heckman style selection model is also inappropriate since all combinations of the dependent variables are fully observed, or in other words, states can change military expenditures without forming alliances whereas a typical Heckman selection model would only examine changes in military expenditure if an alliance was formed. A possible alternative way to integrate these two processes into an econometric model is to include the predicted probability of an alliance, using Model 2 from Table 1, in a regression model predicting military expenditures.<sup>7</sup> This is similar to, but not the same as, the Heckman model which uses the inverse mills ratio, loosely interpreted as the hazard of not being selected or the probability of non-selection, to condition the regression model estimates (Greene 2003, 784). Here I use the predicted probability of an alliance as a variable to identify the military expenditure regression equation. This is a good method to follow if one believes the predicted probability of alliance formation is correlated with the elements of the military expenditure equation, which the contracting explanation suggests is the case. The predicted probability of alliance formation generated from that model ranges between .013 and .74 with a mean of .09 and a standard deviation of .08. The predicted probability of alliance formation is correlated with observed alliance formation above .30 and of the 519 alliances included in the sample the predicted probability of an alliance based on the specified model predict more than 200 alliances suggesting there is some face validity to the measure. The benefits of this approach are several: first, it allows the estimation of two separately identified equations that are linked through the predicted probabilities generated from the alliance formation probit model which allows the instrumentation of the indirect effects of the independent variables in the alliance formation equation; second, it permits a test of my

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<sup>7</sup> Predictions were obtained using  $\Pr(Y=1) = \Phi(X_i\beta)$ .

claim that domestic demands for social security expenditures negatively affect a state's military expenditures even after accounting how those same demands positively affect alliance behavior; and, finally, regression is an extremely robust technique so each reported slope estimates accounts for the partial effect of the corresponding independent variable on the dependent variable, holding all other explanatory variables fixed suggesting that the reported results are somewhat easier to interpret than other alternative models. Thus, the regression models reported in the next section will be specified as follows:

$$\text{Changes in Military Expenditures} = \alpha - \beta_1 \text{ Demand for Social Security Policies}_{(t-1)} + \beta_2 \text{ Large MWC} + \beta_3 \text{ Sum of Rivals} + \beta_4 \text{ Sum of MIDs in PRIE} - \gamma_1 \text{ Predicted Probability of Alliance Formation} + \varepsilon_1$$

This model specification uses a one-year lag for the demand for social security policies though results are robust for any lag between one and five years previous. I measure demand for social security policy expenditures as the level of the infant mortality rate in the previous year in the analyses herein.<sup>8</sup> The next section reports results for a series of models estimated according to this equation.

## **VI. Findings and Discussion**

[Table 2 about here]

Table 2 reports results for a series of regression models examining the effect of various independent variables on the level of military expenditures, the logarithm of the level of military expenditures and the change in the level of military expenditures between the current year and the previous year as well as the logarithm of that measure.<sup>9</sup> I first report results using the level of military

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<sup>8</sup> For further information about why the infant mortality rate is an appropriate variable to use for capturing domestic demands for social security expenditures see Author (2006). The infant mortality rate data are provided by Abouharb and Kimball (2007).

<sup>9</sup> I introduce natural logarithms of these dependent variables in order to standardize military expenditures that vary widely across countries and, additionally, the potential non-constant variance in the errors associated with fitting a model of military spending would be washed out without logging the dependent variable. Moreover, in models using the level of military expenditures (logged as in Model

expenditures and the logarithm of the level to show preliminary evidence to support my claims despite the fact that the real dependent variable of interest is the change in military expenditures (used in Model 3) between the current year and last year. Results provide strong support for the expectations of the contracting explanation with respect to the relationship between arming and allying. Across all of the models domestic demands for social security expenditures negatively affect all functions of the dependent variable (the level, its change, and logged functions of these) suggesting these demands are the mechanism shaping how states allocate resources among arms and alliance policies.

The variable reflecting the predicted probability of an alliance is positively associated with a state's level of military expenditures though no firm inference can be drawn because the coefficient is insignificant. While this is puzzling, one possible explanation is that changes in a state's level of military expenditures are more affected by changes in a state's likelihood of allying such that if a state's probability of allying this year is larger than that value in the previous year then states should decrease military expenditures. Another way to conceptualize the relationship is to consider how the probability of alliance formation is similar to beliefs about alliance formation and changes in beliefs should shape behavior as states believe they are more likely to ally. The reason why changes in the probability of alliance should more accurately capture the negative relationship between alliances and military expenditures is because at some levels of a state's predicted probability of an alliance, particularly low levels, states may have incentives to increase military expenditures to make themselves more attractive to potential allies providing a partial explanation for the positive relationship between the probability of forming an alliance and changes in military expenditures. In fact, existing research (Author 2006) has uncovered evidence suggesting weak states are less likely to be compatible potential partners adding further support to this claim. Prime facie evidence to collaborate this claim is evident in the data as there is a positive correlation between the predicted probability of an alliance and changes

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2) as the dependent variable I include a lag of the dependent variable (logged as in Model 1) to account for autocorrelation.

in military expenditures when  $p$  is less than .33 and the correlation becomes negative at levels above .66. Thus, I create a variable accounting for changes in the predicted probability of alliance that ranges between -.28 and .43 with a mean of -.001 and standard deviation of .05 and re-estimate model 1 including this variable as well as the general predicted probability of an alliance. All other models estimated (and reported in table 3) also include this new variable to reflect changes in the predicted probability of alliance formation. The results confirm expectations as a state's predicted probability of an alliance is positively associated with changes in military expenditures, while changes in the predicted probability of an alliance are negatively associated with changes in military expenditures. Results are generally consistent across these models though using the logarithm of the change dependent variable produces marginally better results.<sup>10</sup> F-tests are significant suggesting the null hypothesis that the coefficients are zero cannot be supported.

One way to examine the consistency of predicted values from a model is to plot them with actual expenditures for a state across time. Figures 2 and 3 plot predicted values of military expenditures against actual values of military expenditures (from table 3, model 1) for Canada and the US respectively. A quick visual inspection suggested the fitted values (the dashed line) are quite close to the actual values for military expenditures for each country during the 1950 to 2000 time period lending some validity to the model presented. Figures 4 and 5 plot both Canadian and American changes in military expenditures and changes in the predicted probability of forming an alliance across the time period. My expectation is that changes in the predicted probability of alliance formation ought to be inversely related to changes in military expenditures since states should shift resources from military expenditures to alliances when the chances of forming an alliance become more likely—thus these lines should not trend together. Overall, the lines do not trend together on either graph suggesting again there is some validity to the claim that states shift resources away from military expenditures as

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<sup>10</sup> Each model was re-estimated including variable accounting for lagged GDP per capita in order to understand the relationship between existing resources and foreign policy substitutability. Results remains consistent for the variables of interest and the finding are not reported here since adding this variable seriously decreases the number of observations.

they become more likely to find alliance partners with whom they can jointly produce military goods more efficiently.

Since reported coefficients are really partial effects of the independent variables holding all other variables constant I can provide some interpretation of these models. Military expenditures are measured in thousands of US dollars in the current year (Bennett and Stam 2000). So following model 3 from table 3, increasing last year's demand for social security expenditures by one standard deviation should decrease the change in military expenditures by about \$54.8 million (the expected change in level of military expenditures from this model with all variables set at their means is about \$73 million), whereas the level of military expenditures (according to model 1 on table 3) ought to be decreased by about \$147.7 million from its expected value of \$3.4 billion when there is a one standard deviation increase in domestic demands for social security policies. Additionally, a one standard deviation increase in the predicted probability a state allies has a positive relationship to changes in a state's military expenditures (from model 3 on table 3) and should cause a \$97.7 million increase in the change in military expenditures, while changes in a state's predicted probability of forming an alliance decrease changes in a state's level of military expenditures by about \$20.7 million dollars. This provides empirical support for my claim that alliances and arms expenditures are complements to one another and alliances may be used as substitutes for military expenditures as states shift resources away from military expenditures when the probability they form an alliance becomes more likely. Moreover, domestic demands for social security have a clear relationship to both of these security policies—they increase the chances of alliance formation and have a negative relationship with changes in a state's level of military expenditures. Those domestic demands are the causal mechanism shaping both types of behavior. The finding that domestic demands consequentially affect security portfolios even after empirically accounting for the endogenous relationship between arms and alliances suggests this project provides a major contribution to the literature on foreign policy substitution in its empirical and

theoretical contribution as to what causes states to re-organize foreign policy portfolios—domestic demands for social security expenditures.

## VII. Conclusions

This paper examined the microfoundations of the contracting explanation by suggesting domestic demands for social security expenditures shape the relationship between arming and allying for individual states. The reason why domestic demands for social security expenditures shape how leaders allocate resources between arming and allying is because leaders care about retaining political power. Leaders need to design efficient security policies so as to free resources to allocate towards domestic demands. In fact, the findings here suggest domestic demands negatively affect changes in a state's level of military expenditures despite their positive influence on alliance potential AND the positive relationship between the probability of alliance formation and changes in a state's level of military expenditures. Moreover, results here suggest changes in a state's predicted probability of an alliance are inversely related to changes in military expenditures. Thus, there is evidence to support the microfoundations of the contracting explanation of alliance formation as social security expenditure demands from a leader's domestic environment influences how the leader allocates resources between the sources of security within his security portfolio, arms and allies. Moreover, the basic expectations of the contracting explanation model continue to receive robust support despite being subjected to differences in the unit of analysis and time domain relative to earlier analyses. The unique implication of the research here is that the domestic political factors (i.e. veto players and the constraints/demands associated with MWC size) suggested by others to either impede cooperation (Putnam 1989; Milner 1997) for leaders or be unassociated with it (Waltz 1979) not only inspire leaders to seek out cooperation according to the arguments presented here but also affect the allocation of resources towards national security. So, in abstract, domestic political demands have a double-edge when considering how they can affect cooperative behavior among states. Clearly, the findings of this paper

point to the fact that domestic factors cannot be marginalized in our study of international cooperation and, indeed, they should rightfully share a central role in our studies of cooperation and security portfolio design along with power politics factors.

**Table 1: Probit Models of State-Level Alliance Behavior (1950 - 2000)**

	AF Hyp #	Model 1	Model 2
Change in IMR relative to 3yr Ave.	H1	0.0047* (.002)	0.0047* (.002)
Large MWC	H2	0.0107 (.049)	-0.0135 (.049)
Number of Rivals	H4	0.3187* (.087)	0.1685* (.094)
Number of MIDs in PRIE	H4	0.0015 (.001)	0.00008 (.001)
Capability Ratio to PRIE	H4	---	2.8125* (.680)
Constant		-0.5964* (.062)	-0.6154* (.062)
Alliance Years		-0.3252*	-0.3174*
Spline 1		-0.0078*	-0.0076*
Spline 2		0.0031*	0.0030*
Spline 3		-0.0003*	-0.0003*
Log Likelihood		-1637.2664	-1617.3618
Wald Chi-Square		383.29*	396.41*
Pseudo R-square		0,1052	0,1098
Number of observations		6080	5992

\*p&lt;.05

**Table 2: Regression Models of State-Level Military Expenditures (1950-2000)**

Dependent Variable is...	M1 level of ME	M2 Logged level of ME	M3 Chg in ME t - (t-1)	M4 logged Chg in ME
Lag of the Level of IMR	-2729.93* (1014)	-0.00058* (.0002)	-1078.4* (515)	-0.0105* (.003)
Large MWC	19429 (52657)	0.0247 (.0237)	987.16 (89976)	-1.1982* (.295)
Number of Rivals	1283325 (1302944)	0.0295 (.0220)	1807531* (432573)	0.0838 (.672)
Number of MIDs in PRIE	9496.98* (4987.6)	0.0012* (.0003)	6373.1 (4575)	0.0620* (.008)
<i>Predicted Probability of Alliance Formation</i>	2334036 (1582887)	0.1236* (.113)	1157909 (916924)	3.8246* (1.838)
Lagged Military Expenditures	0.99325* (.0316)	0.9605* (.0101)	NA	NA
Constant	-120168 (134973)	0.56702* (.1277)	-95498.8* (106238)	3.1957* (.370)
F test	2200.16*	27333.02*	8.83*	24.49*
R-square	0,9695	0.9597	0.0281	0.0251
Number of observations	5733	5640	5640	5640

\* p< .05

**Table 3: Regression Models of State-Level Military Expenditures (1950-2000)**

Dependent Variable is...	M1 level of ME	M2 logged level of ME	M3 Chg in ME t - (t-1)	M4 logged Chg in ME
Lag of the Level of IMR	-2768.03* (1034)	-.00005597* (.00021)	-1036.47* (523.07)	-.010918* (.00268)
Large MWC	25724.8 (54796)	-.0269225 (.02439)	2913.18 (93579)	-1.2104* (.30002)
Number of Rivals	1321092 (1402288)	.01278 (.02272)	1898630* (481434)	-.24796 (.72226)
Number of MIDs in PRIE	9663.7* (5043)	.001034* (.00030)	6395.2 (4636)	.05848* (.00777)
<i>Predicted Probability of Alliance Formation</i>	2660985 (1869819)	.2461* (.1314)	1224266 (1114027)	5.9711* (2.2039)
<b>Change in PP of Alliance Formation</b>	-1034941 (1089949)	-.2845* (.1528)	-414566 (906464)	-5.61090* (2.5182)
Lagged Military Expenditures	.9925 (.0319)	.96194* (.01026)	NA	NA
Constant	-145400 (151817)	.54365* (1267)	-104511 (121775)	3.15445* (.3783)
F test	1898.48*	23977.2*	7.14*	20.49*
R-square	.9694	.9603	.0287	.0252
Number of observations	5578	5489	5489	5489

\* p< .05

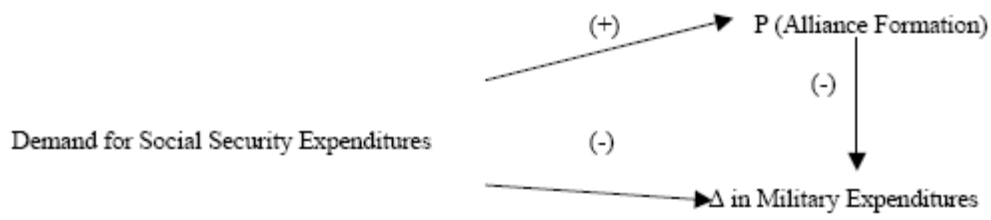
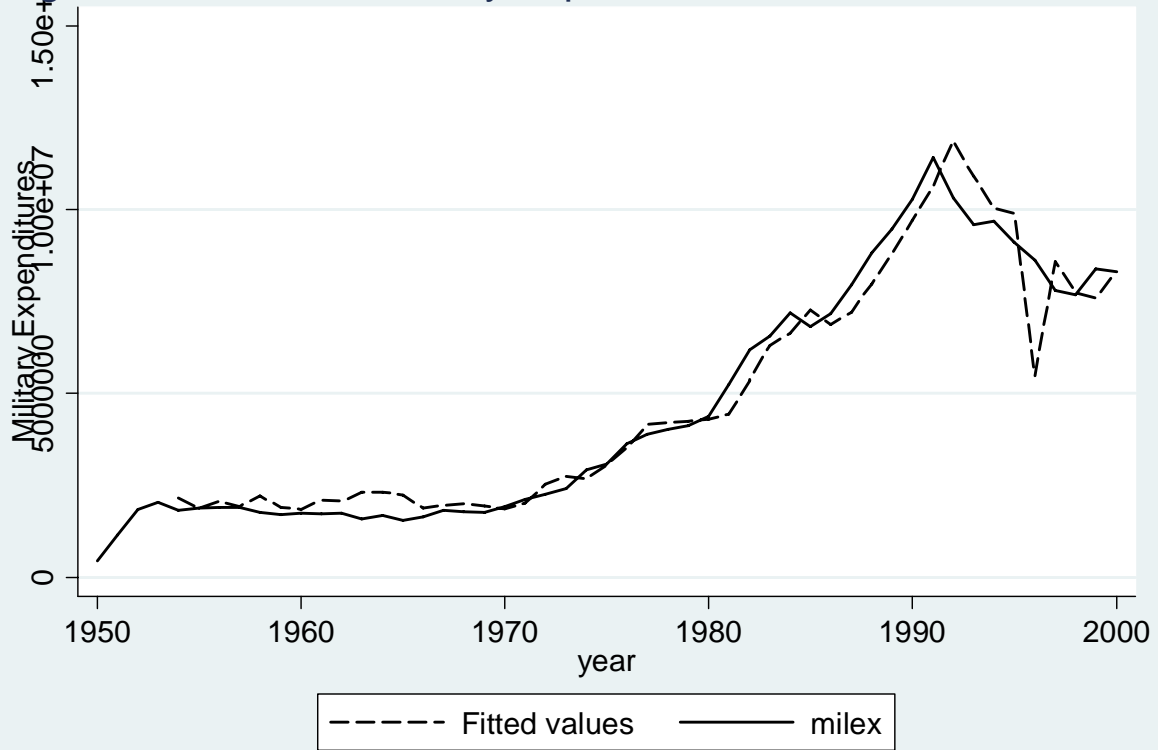


Figure 1: Relationship between Arms and Alliances according to the Contracting explanation

Figure 2: Canadian Military Expenditures Fitted Values vs. Actual



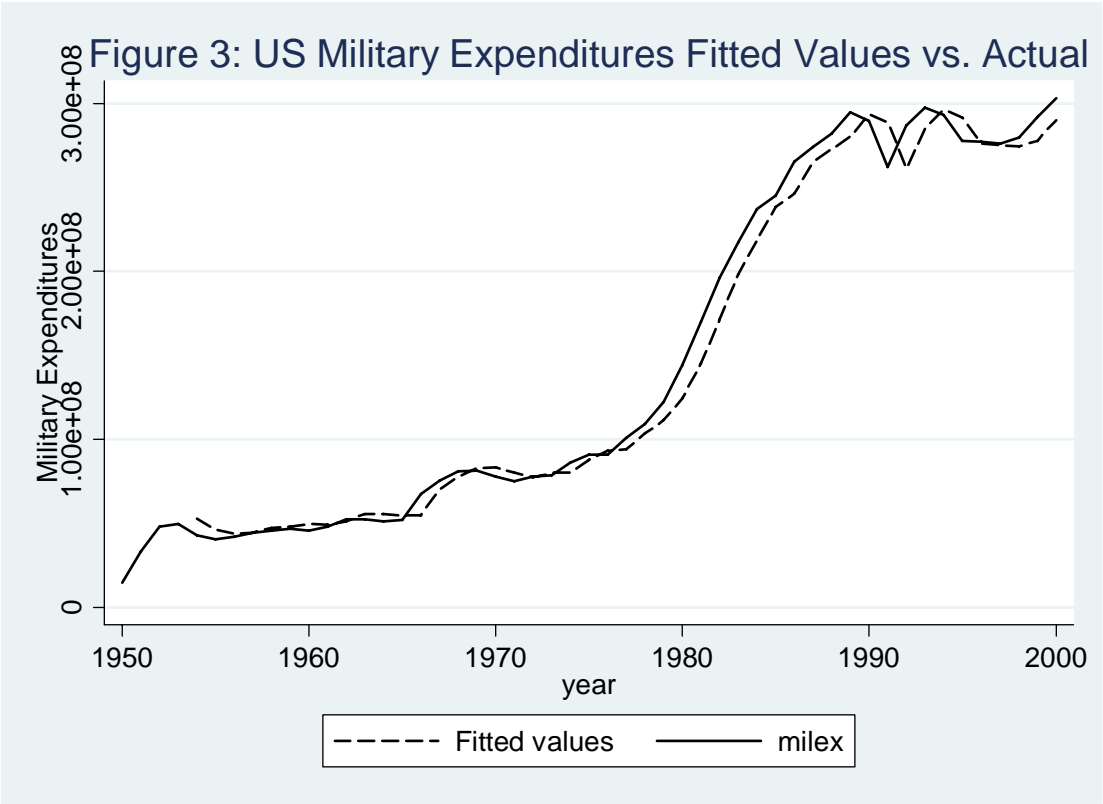
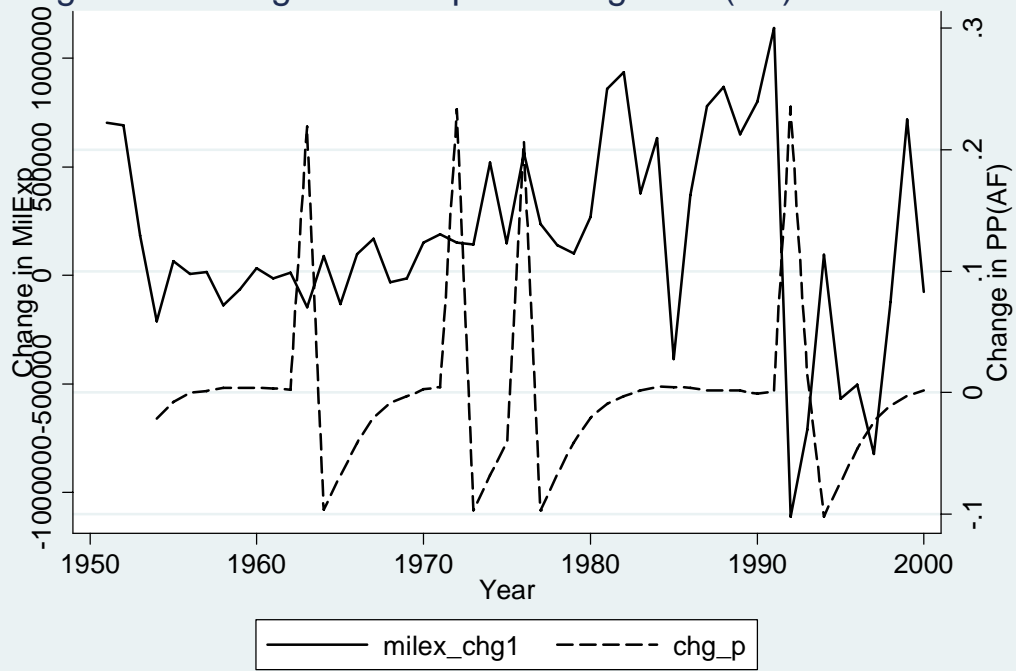
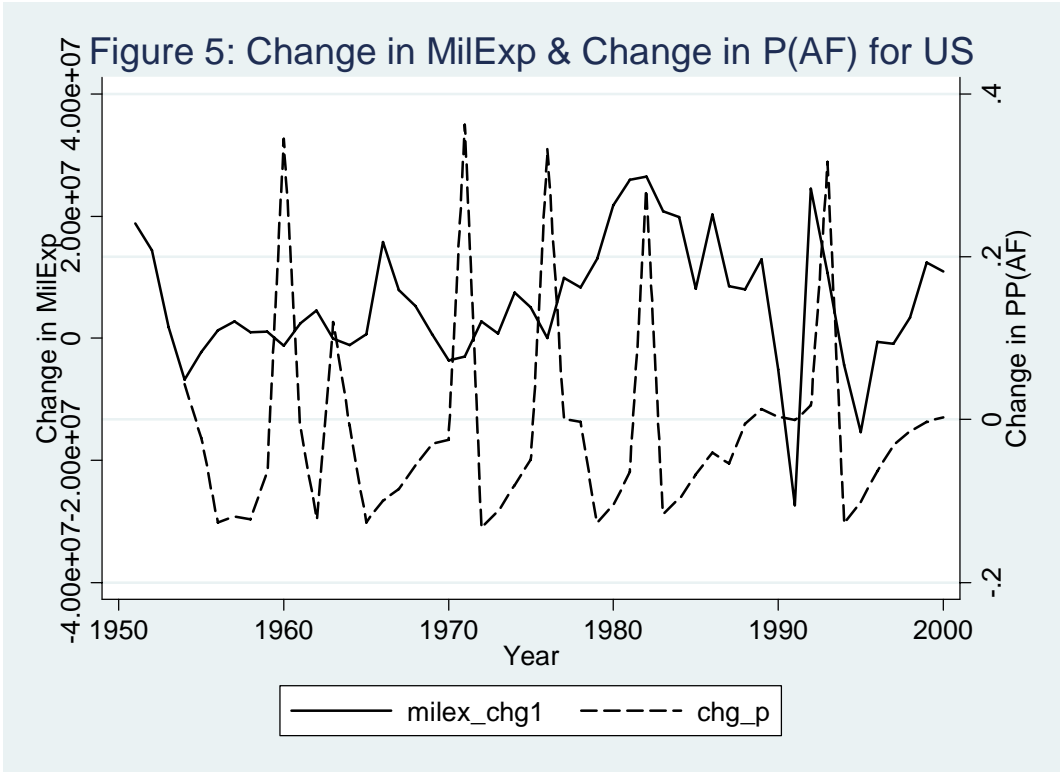


Figure 4: Change in MilExp & Change in P(AF) for Canada





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