PAYING THE PIPER? THE IMPLICATIONS OF SOCIAL INSURANCE PAYMENTS FOR CONFLICT PROPENSITY

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State leaders must often address domestic and foreign-policy concerns simultaneously, though doing so can be complicated and risky. One way in which leaders can seek to satisfy domestic demands and pursue foreign policy goals simultaneously is by implementing policies that complement one another; i.e., the implementation of one policy influences the ease with which the other policy can be implemented. For instance, one manner in which leaders can placate domestic audiences is via distributive policies such as social insurance payments that provide economic security to individuals. By providing economic security guarantees, leaders may gain greater discretion over other policy areas, including foreign policy. However, while the social insurance effort may satisfy an audience and enable a leader to take foreign-policy action, especially high payment levels may indicate that a leader must devote an inordinate portion of his budget to domestic concerns, making foreign policy more difficult to implement. Thus, guarantees of economic security might provide leaders with greater foreign policy latitude until domestic expenditures reach sufficient levels that foreign-affairs budgets are reduced. We employ zero-inflated event count models to estimate the relationship between social-insurance levels and the number of Militarized Interstate Disputes in which states engage. Our analyses include 69 states between 1975 and 1990. Our models support the hypothesis that lower levels of social insurance lead to greater numbers of disputes, but that, after a certain level of insurance effort is passed, dispute involvement declines. Our find-

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ings suggest a differential effect of social insurance on a leader’s ability to act in the foreign policy arena and support the notion that leaders may employ the welfare state to enhance their foreign-policy capabilities, though they appear to meet with conditional and limited success.

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As international-relations scholars increasingly seek to link domestic political concerns and international behavior, research focuses more and more on the specific processes by which domestic forces either constrain or enhance an executive’s capacity to carry out foreign policy. Notable in this growing body of work is the literature on democracy and conflict behavior, and on the diversionary use of force. Though these research programs diverge in important ways, they illustrate a growing recognition that the internal conditions and processes of the state influence foreign-policy decision-making in important ways.

Perhaps a trademark of democratic peace and diversionary literature is that it focuses very much on the institutional environments within which decision makers operate (e.g., regime characteristics), on specific indicators of electoral threat (e.g., approval, unemployment), and on the decision to use force abroad (e.g., Correlates of War data). In general terms, the structural characteristics of democracies are held to constrain executive behavior while more temporal conditions that threaten a leader’s tenure in office are generally expected to spur executives into adventurous and opportunistic foreign policy. The attentiveness of the public and its willingness to punish the executive is generally assumed to vary as the public evaluates an executive’s policy-making successes and failures. In turn, an executive’s tenure in office depends substantially on the nature of these evaluations. As a result, executives have strong incentives to demonstrate their competencies or to divert attention from their inadequacies when they face a challenge for office.

While much of the current literature focuses on electoral concerns or on the inhibiting force of legislative bodies, little research examines the domestic tools a leader can employ in order to improve either his foreign-policy options or his foreign-policy effectiveness. In fact, an assumption underlying much of the diversionary literature is that troubled executives will turn to foreign policy as they seek either to distract, to create a scapegoat, or to demonstrate their skills to the domestic audience. Rarely does research on the links between incentives to retain office and policy decisions examine other courses of action a leader might take.

Even less common is work that examines how leaders can make domestic political decisions that serve as distributional payoffs to domestic constituents, thus freeing leaders to make foreign-policy decisions that might be more controversial and risky (and perhaps impossible) in the absence of domestic compensation. Innovative exceptions to this research focus on the implementation of free-trade structures. Specifically, research into the adoption of free-trade structures has shown that states will be more likely to practice free trade when they have domestic systems that can deal with the uncertainties associated with free trade. Scholars have argued that domestic social-insurance programs (welfare and other transfer payments) make the adoption
of free trade less risky in the sense that fluctuations in the global marketplace will have a less deleterious effect domestically when such programs exist (e.g., Bates, Brock, and Tiefenthaler, 1991; Quinones and Gates, 1995). The result is that leaders can engage in otherwise risky foreign-policy behavior by providing guarantees of economic security to their domestic constituents. In this manner, leaders manipulate the domestic political apparatus in order to enhance their foreign policy-making options and to make foreign policy more effective.

In this article we seek to explain the degree to which domestic policy acts as a constraining or enabling force on foreign-policy behavior. While we do not address the notion of risk propensity itself, we believe that domestic social-insurance spending affects the constraints on leaders in the foreign-policy arena. Much as Bates et al. and Quinones and Gates find that higher domestic transfer payments allow states to pursue freer trade, we expect that a similar, though perhaps more complicated, mechanism may be at work with regard to the use of force abroad. Leaders who have greater foreign-policy freedom may be able to pursue aggressive foreign policy and even to prosecute international war. We propose that the constraints binding leaders are determined, at least in part, by the degree to which domestic populations are satisfied with their own general welfare. Insofar as these populations are satisfied, leaders have more freedom to pursue specific interests in the international system. It is on this basis that we expect that social insurance, as a guarantee of general welfare and economic security, will satisfy domestic populations and thus leave leaders of satisfied audiences the ability to engage more freely in conflict. However, we also expect that the effect of social-insurance programs on foreign-policy freedom is limited. While some levels of social insurance may satiate domestic audiences, higher levels may suggest that leaders must divert economic and political resources to provide economic security to the populace. When leaders have such substantial obligations to domestic audiences, their freedom to act in the international system may be limited both by the attention of the audience and by the scarcity of resources, given their expenditures on economic-security programs. More generally, we seek to examine the extent to which leaders employ the tools of the welfare state, especially social-insurance effort, in order to improve their foreign-policy-making abilities. However, we also set out to establish the limits by which leaders are bound as the opportunity costs of providing economic security mount and ultimately detract from their foreign-policy capabilities.

DOMESTIC AUDIENCES AND FOREIGN POLICY

The claim that domestic political forces influence foreign-policy behavior is not novel, and, in fact, theoretical and empirical work linking domestic and international politics is extensive. Early research examining the “nexus” of domestic and international politics suggested a relationship between internal and external conflict, building principally on Sumner’s “in-group–out-group” hypothesis (Sumner, 1906). Additionally, scholars began to suggest that states with domestic trouble have incentives to turn domestic attention abroad, focused on some common foe—a scapegoat. In the 1980s, research began to focus on a more particular variant of the scapegoat argument, claiming that democratic leaders have electoral incentives to use force
abroad in order to generate rallies in public opinion or to divert attention from domestic trouble. Ostrom and Job (1986), Morgan and Bickers (1992), and James and Oneal (1991) all find support for the notion that political trouble at home produces militarized aggression abroad.2 Other work, however, casts some doubt on the diversionary hypothesis. Meernik (1994), for instance, claims that prior analyses examining the presence or absence of disputes assumes that opportunities to use force are omnipresent. His empirical work treats opportunity as the unit of analysis and finds no evidence of diversionary behavior. Leeds and Davis (1997) assess diversion in a cross-national context and also fail to find support for the hypothesis; they claim (after Alastair Smith’s [1996] hypothesis) that diversionary need actually reduces opportunities to use force, as potential scapegoats behave cautiously in order to avoid becoming scapegoats.

While empirical evidence that political trouble at home prods leaders to resort to arms abroad is mixed, it appears that domestic and world politics are linked, but perhaps in a more complex manner than the diversionary hypothesis might imagine. Formal work by Bueno de Mesquita and Lalman (1992), Morrow (1989), Fearon (1994), Smith (1998), and Schultz (1998) suggests, for instance, that states behave strategically and condition their foreign-policy actions on the information they receive from their opponents regarding intentions and resolve.3 Not only might states make foreign policy with regard to their opponents’ likely actions, but foreign policy might be influenced, even constrained, by domestic concerns as well. More directly, and somewhat contrary to the diversionary literature, leaders might not resort to arms when they face domestic turmoil, but might seek alternative types of policy with which to assuage domestic threats. For instance, Bueno de Mesquita, Morrow, Siverson, and Smith (1999) argue that leaders pursue policies that most effectively allow them to distribute goods to their constituents. Because democratic leaders tend to face large winning coalitions, they find policies that approximate public goods to be the most useful tools as they seek to retain office; autocrats, facing smaller winning coalitions, often find private goods useful. Democratic leaders are likely to select foreign policies with care because of their domestic audiences; thus, the decision to use force abroad is perhaps taken more cautiously than it might be in an autocratic state.4

Further, because democratic leaders have incentives to be cautious in their foreign-policy choices, they sometimes have incentives to substitute policies for one another in the manner suggested by Most and Starr (1989). Recent work on foreign-policy substitutability suggests that leaders might, at different times, choose different courses of action in response to domestic threats.5 For instance, Clark (2001) argues that leaders facing domestic threats due to sagging economic fortunes will resort to foreign policies that address the economic downturn instead of resorting to the use of force abroad. Military action may or may not be useful in advancing the national interest at any particular time, but its utility in dealing with economic dislocation is questionable. Moreover, the utility of resorting to arms may depend on the capacity of the leader to implement other types of policies that can successfully address domestic demands.

The literature collectively suggests that, even though domestic political and economic conditions might influence foreign-policy choice, leaders might not directly
respond to domestic trouble by resorting to arms. Rather, leaders have sets of policies from which they might choose alternatives that respond more directly to the nature of the domestic threat and policies that might be less risky than using force abroad. Among the policies leaders might turn to are the distributive policies that Bueno de Mesquita et al. (1999) refer to, particularly policies that generally provide for the economic security and welfare of the population at large. While the notion of policy substitution evokes an “either, or” kind of trade-off, it may be the case that leaders have incentives to implement distributive policies and foreign policies at the same time in order to accrue the complementary effects such policies might exert. The next section advances the argument that implementing distributive policies provides an environment in which leaders have greater latitude in foreign policy. Insofar as these types of policies are complements in this regard, we argue that the capacity of the state to distribute economic protection influences the ability of the executive to implement foreign policy.

Satisfying Constituents

While leaders might substitute policies for one another and have clear incentives to distribute goods to constituents, policies are rarely made in a vacuum but instead are interdependent. Skilled leaders pursue policies that advance two principle goals. First, political leaders have incentives to implement policies strategically to ensure that they retain office. This is a standard assumption in research in world politics under the rational-choice paradigm, but is also consistent with other approaches such as prospect theory. Second, leaders seek to maximize their discretion over policy-making, effectively increasing the extent to which they can implement their preferred policies. This notion evolves from Parker’s work on the U.S. Congress that suggests that members are simultaneously interested in office retention and in “maximizing discretion” or freedom of choice over the policies they seek to implement. Similarly, executives making foreign policy hope to retain office, but they also hope to exercise discretion over policy-making, such that they can implement foreign policies that are advantageous to the nation and perhaps to their own fortunes, the two being related. They particularly have incentives to implement foreign policies that are successful insofar as domestic audiences evaluate leaders on the basis of their competence in policy-making. Work by a variety of authors argues that audiences evaluate leaders on the basis of domestic economic performance and on the basis of foreign policy success; incompetent leaders tend to be replaced. The likelihood that an executive can carry out successful foreign policy is related, at least in part, to the discretion he is able to exercise over foreign policy.

How can leaders increase the discretion they exercise over foreign policy while also seeking to retain office? Executives have a variety of policies from which they might choose in dealing with domestic trouble, and they might sometimes substitute one policy for another (as the substitution literature suggests), thus choosing policies more likely to succeed. Alternatively, leaders might choose to implement policies that are complementary to one another; implementation of policy A influences the effectiveness of policy B. Complementary policies might achieve exactly what Parker has in mind regarding members of the U.S. Congress. One policy, say some act of...
distribution to constituents, might afford a member of Congress some latitude in his decision-making regarding another policy area. Likewise, executives in need of latitude as they formulate foreign policy might seek distributive domestic policies that allow them the foreign-policy freedom they require in order to make effective foreign policy to demonstrate their competence. Distributive (and sometimes redistributive) politics have been shown to be popular, if not effective, methods of propitiating the demands of an attentive domestic audience in the United States. Distributive policies are common in virtually all political systems and are likely to exert some influence over the implementation and success of other policies as well.

Not only are distributive policies likely to have direct bearing on the fortunes of political leaders, but they are also likely to influence the environment in which those leaders implement other types of policy, particularly those that might evoke concern in the domestic audience. The mixed evidence for the diversionary hypothesis might emerge partially because leaders do not always or exclusively resort to arms in response to domestic demands, but they might seek to ameliorate the threat domestic turmoil poses to their tenures in office through other means. Moreover, troubled leaders may well find that domestic unrest impedes the implementation of effective policy; if leaders cannot implement effective policies, their chances of retaining office are diminished. For these two reasons, executives in domestic trouble might have significant incentives to implement distributive policies that both provide some security to the population and enhance the latitude with which they can make other policy decisions, including those regarding foreign affairs. Leaders of any state will find that policies that distribute some measure of security or protection to the population at-large will simultaneously satisfy the domestic audience and increase their own capacities to undertake foreign policies that, though risky, pose less of a threat to their newly secure constituency. In some sense, the distribution of public goods that provides constituents with protection from economic displacement ameliorates the extent to which foreign policies in general threaten domestic conditions. While international trade liberalization might produce domestic dislocation, social-insurance safety nets reduce public fear of liberalization. Though foreign military involvement might raise public concerns regarding the expansion of national commitments and military expenditures, an economically secure public is less likely to mobilize over those concerns than a public threatened by economic dislocation.

This is effectively the logic underlying articles by Bates, Brock, and Tiefenthaler (1991) and by Quinones and Gates (1995). Bates et al. originate the notion that leaders prefer to implement efficient economic policies including liberal trade regimes. Doing so, however, risks economic displacement and public dissatisfaction, and also threatens a leader’s tenure in office regardless of regime type. As a result, state leaders have incentives to provide security guarantees to the public, effectively reducing the public’s risk associated with free trade. Social safety nets provide such security to the public and simultaneously decrease the risk the leader incurs as he pursues free trade policies. In effect, leaders seek simultaneously to protect themselves politically and to advance their own capacities to implement effective policies. They manage to achieve these two goals by implementing complementary policies and distributing goods to constituents, thus freeing themselves to pursue free trade policies that might otherwise have been too politically risky to undertake.
Political leaders have incentives to behave strategically to maximize their chances of office retention and the discretion they exercise over policy-making. Leaders can manipulate distributive policies to varying degrees in order to provide for the general welfare and security of their populations. Doing so effectively increases the scope of the policy options available to a leader at a given time; the set of policies from which she might choose is larger than it might be were the domestic audience particularly dissatisfied and demanding. The distribution of public goods serves to provide a safety net that reduces constituents’ incentives to demand economic protection. Under these circumstances, leaders are freed, to some extent, from having to focus on economic security. Moreover, their choices in foreign policy are less constrained than they might be were the economic security needs of their populaces not satisfied. However, to the extent that leaders undertake both distributive and foreign policies in a complementary fashion, leaders also make budget trade-offs between the two since spending on distribution potentially reduces the amount available for foreign affairs.

The next section details this trade-off that accompanies the complementary relationship between distributive and foreign policies.

Trade-Offs in Strategic Behavior and Social-Insurance Programs

While strategically motivated leaders might find complementary policy implementation useful as they seek greater discretion in foreign policy-making, they must face a particular challenge that results from the nature of nations’ budgets. Each additional dollar, peso, or yen spent to provide economic security to the population amounts to one less unit to allocate for foreign affairs. Budget constraints may increase the difficulty a leader faces as she seeks policies that complement one another by distributing public goods and increasing foreign-policy discretion.

However, strategically inclined leaders have strong motives to implement complementary policies insofar as leaders who provide effectively for the general welfare via distributive policies are less constrained than otherwise, because an economic security net helps to provide for the most basic demands of society. Having met those basic demands, leaders have greater discretion in choosing policies in general, but particularly in areas such as foreign policy, which might otherwise be scrutinized by a dissatisfied public. Though the use of force abroad is risky under virtually any circumstances, such foreign-policy endeavors are especially difficult to motivate if domestic needs are not met. Leaders who satisfy domestic needs by providing an economic safety net via social-insurance programs find that domestic constraints are not as severe as they might be otherwise, because a basic demand of the populace has been met.

Leaders who provide for domestic needs will be more free to use force abroad, not because they necessarily prefer force a priori, but because the military is a more readily available option than it might be to a leader who has not provided for the economic security of her population. The use of military force, however, is reliant on resource availability. As budgets are zero sum, each additional unit of the budget devoted to social-insurance programs is one less unit that might be allocated to the military. This is the classic butter for guns trade-off; due to this trade-off, the effect
of providing economic security to the public on the discretion of the leader in foreign policy is not linear. Rather, low but increasing levels of economic security produce greater discretion (and greater freedom to use military force abroad), but at some point, resources are diverted to economic security such that the ability to use force abroad is more scarce—leaders must choose how they use their increasingly scarce military resources carefully, as increases in economic security spending reduce the capacity of the state to use force abroad.

This nonlinear formulation captures the complementary relationship between distributive social policies and foreign policy insofar as the two policies are not mutually exclusive and can be invoked simultaneously. Yet they depend on one another because budgets are finite, and distributive spending necessarily influences spending in other areas, including foreign affairs. One way to interpret this theoretical conclusion is that the tools of the welfare state allow leaders to satisfy domestic audiences and increase their own discretion as they make policy decisions. But while increasing social insurance might be a popular way to assuage the economic security concerns of the population at-large, slowing that spending or reducing spending levels in order to protect other types of policy is politically difficult (if not impossible). Over time, distributive policies inexorably consume greater portions of the budget, forcing frugality in other areas—including the conduct of foreign affairs.

This complex relationship between complementary-policy implementation and a trade-off between butter and guns is evident in the late 19th and early 20th centuries in Germany and Britain. Bismarck’s nationalist efforts to expand Germany’s continental influence met resistance both at home, from the emergent Social Democrats, and abroad, from the Entente among Russia, France, and Britain. In the face of increasingly vocal demands for social protection from Social Democrats, Bismarck instituted disability and health-insurance programs in the 1880s, both to quell opposition and to solidify his position; an “integrated and extensive social insurance system” was introduced “for explicitly paternalistic motives, and as a way of consolidating an autocratic state” (Creedy and Disney, 1985, p. 27). His efforts simultaneously provided a public good aimed at quieting the Social Democrats and diminishing opposition to his military expenditures. Similarly, British leaders quarreled over the same kind of trade-off between social and military spending in the first decade of the 20th century and, somewhat ironically, were inspired on both counts by Germany’s social and military progress. Lloyd George, Chancellor of the Exchequer, visited Germany in 1908 and returned to London impressed with Germany’s social insurance and motivated toward both imitation and rivalry (Hennock, 1987, 170ff). Economists in the British cabinet favored smaller military expenditures in the arms race with Germany, but hoped to commence social programs to insure against illness and old age. Strategists, on the other hand, preferred to build new ships, particularly as Germany’s naval power surged following Britain’s 1906 launch of HMS Dreadnought. George advocated both (though favoring social insurance) saying, “I hope our competition with Germany will not be in armaments alone” (Hennock, 1987, p. 170). Winston Churchill also supported advancing Britain’s social-insurance programs after the German model. He noted in 1908 that Germany was “organised not only for war but also for peace” and advocated that Britain do likewise (Hennock, 1987, pp. 19–20). However, his position on allocating funds to the naval race with
Germany changed markedly after he became First Lord of the Admiralty. Ultimately, Britain opted to build fewer ships than the Admiralty requested (committing Britain less than fully to the naval race with Germany) and to implement moderate social-insurance programs that quickly grew in popularity and in scope.

Both British and German decisions regarding social insurance and naval armaments were influenced substantially by domestic concerns, by international balance-of-power concerns, and by the complementarity between social insurance and discretion over foreign policy. But, in both cases, though distribution via social insurance may have eased the debate over spending on arms, resources became more scarce and somewhat more difficult to allocate to the military. In a general sense, we argue that low levels of social-insurance spending have effects fundamentally different from those of higher levels of spending because these different spending levels indicate different domestic conditions surrounding the audience-leader linkage. States with low levels of social-insurance spending can be characterized two ways. First, leaders of these states have little protection from their domestic audiences during economic crisis since little in the way of social safety nets exists. Second, however, leaders are not tightly bound by domestic audiences’ continual demands for distribution or redistribution; as a result, budgetary resources can be directed toward endeavors other than social programs.¹³

As the level of social insurance spending reaches moderate levels, however, leaders have greater discretion over foreign-policy decision-making. Not only do leaders have the opportunity or freedom to act, but they also have the resources for foreign policy since domestic demands do not inordinately divert budgetary resources to social programs. But as these levels of social-insurance spending increase, they indicate the increasing safety nets and potential diversion a leader supplies a domestic audience. They also suggest the growing attention the domestic audience requires from the leader and the growing amount of resources he must divert to social programs. In other words, his opportunity to act freely in the foreign-policy arena is restricted at some point simply due to of the amount of resources he must expend domestically.

**RESEARCH DESIGN**

Our theoretical construct suggests a link between domestic social-insurance programs and the foreign-policy behavior of states. Leaders who are primarily concerned with retaining power may have greater discretion in the international system when the general populace is contented economically, though this relationship is conditional upon the opportunity cost extracted from foreign policy by attention to domestic social insurance. Specifically, this suggests:

**Hypothesis 1** Levels of social-insurance effort will be quadratically related to militarized interstate disputes (MID) involvement. As social-insurance effort increases, conflict propensity will increase to an inflection point, then will decrease thereafter.

So we anticipate a parabolic relationship between social-insurance effort and the use of military force since leaders will be enabled in their foreign-policy choices
when domestic audiences are placated with economic security. However, their freedom to act will diminish as they must devote more resources to domestic needs. As a result, increasing social-insurance efforts should increase conflict propensity up to a point, whereafter conflict propensity should decline as foreign-policy resources are diverted to domestic programs.

We test this hypothesis at the monadic level of analysis by observing the relationship between levels of social-insurance spending and states’ conflict propensities. Specifically, we explore the relationship between social insurance and the initiation of MIDs (Gochman and Maoz, 1984; Jones, Bremer, and Singer, 1996). MIDs are serious international disputes that involve either the threat to use force, a display of force, the use of force, or the onset of interstate war. Specifically, our analyses examine the annual number of disputes initiated by a state and the total number of MIDs a state engages in during a given year. Since each dependent variable represents a count of annual disputes, we employ event-count models.

Data on social-insurance spending are taken from the International Monetary Fund’s Government Finance Statistics Yearbooks (IMF, 1984, 1985, 1989, 1994). The variable is measured as a state’s social-security and welfare spending as a percentage of its total expenditures for a given year. Programs like these are explicitly rooted in providing long-term economic security guarantees. Measuring social-insurance spending as a percentage of total expenditures provides two advantages. First, amounts are standardized by total spending and are thus comparable across states. Second, as a percentage, social spending is contrasted to the percent spent in other categories, including military spending. That is, as social spending increases as a percentage of total spending, we know that spending in other categories is reduced in relation. Ultimately, the variable represents the relative effort a state makes to provide social insurance to the domestic audience. It is conceptually important to conceive of social-insurance effort in this manner since leaders generally cannot allocate resources to various types of policy in an unconstrained fashion; spending more on one policy almost invariably has an opportunity cost in another policy area. Our social-insurance effort variable ranges from 0–63% and has a mean of 17.7% and a standard deviation of 15.9%.

Our analyses encompass 69 states over a 16-year period, 1975 to 1990. Like other studies involving cross-national social-insurance spending data, the scope of our study is limited by the availability of data. Though spending data are available for some states for longer periods, we have limited our analysis to a time period during which we have complete data for the largest number of states possible. Data are generally good for industrialized countries, but much less so for developing areas, especially Africa. In fact, Africa is of particular concern in our analyses because it may be that the shortage of African data in the sample may bias our estimates. This is especially so since scholars have noted that there is little interstate conflict in Africa (e.g., Lemke, 1996, 2002). It would also seem likely that levels of social insurance in Africa are rather limited. If this were true, it could conceivably bias the results toward a relationship between low levels of social-insurance effort and low levels of international conflict. Given our differential hypotheses, the exact impact of this potential bias is not clear. However, from a theoretical standpoint, we can assert that the lack of interstate conflict in Africa is probably not purely a function of social-insurance pro-
grams. Lemke identifies several reasons for the scarcity of conflict, most significantly the fact that these states are “unable to mobilize the resources necessary for military engagement across distance” (Lemke, 1996, p. 1). He also notes that African states are more likely to be involved in domestic conflicts and thus are preoccupied in some sense (Lemke, 1996, p. 11). We examine regional differences more in the coming sections so that we can be confident our empirical results are not driven by regional variation.

In our empirical examination of the effect of social insurance on conflict propensity, we anticipate that three variables in particular may influence foreign-policy decisions and may affect the relationship between social insurance and conflict. First, we expect democratic states to behave somewhat differently from nondemocratic states insofar as democratic states tend not to fight one another. Though democratic peace research primarily finds that dyadic democratic behavior is pacific (e.g., Russett, 1993; Rousseau, Gelpi, Reiter, and Huth, 1996), portions of that literature suggest that democracies may be more monadically peaceful than autocratic states (e.g., Geller 1985; Maoz and Abdolali, 1989; Benoit, 1996; Ray, 1995). Further, we anticipate that democratic efforts toward social insurance may be systematically different from the efforts put forth in nondemocratic states. Though we do not have specific expectations regarding how social-insurance effort may vary depending on regime type, we believe that the electoral threat that typifies democratic systems may place demands on leaders to appease domestic audiences in a manner substantively different from the less inhibited or differently inhibited autocrat. In short, democratic leaders may be more inhibited by dissatisfied audiences than might autocratic leaders, and thus the relationship between social-insurance effort and conflict may be systematically different between the two types of states. As a result, we control for regime differences using data taken from the Polity III data set (Jaggers and Gurr, 1995). This data set includes a variable for democracy that ranges in value from 0–10. This variable is an additive combination of four component variables (measuring factors such as method of electoral selection and partisan competition). We code a state as a democracy if it takes a value of six or higher.16

Second, we are concerned about the confounding impact of state power on the relationship between social-insurance effort and conflict propensity. There have been links drawn in the literature between power and dispute involvement.17 More powerful states may have greater freedom of mobility and more opportunities to interact with other states. It seems clear that more powerful states (which are generally more wealthy) would be better able to provide social insurance to their populaces (Most and Starr, 1989). If we do not control for state power, any relationship we observe between social spending and conflict behavior may be spurious and driven by power. We rely upon the Correlates of War capabilities index in our analyses.

Not only are more powerful states perhaps more conflict-prone than their less powerful counterparts, but one source of that power—wealth—may also influence conflict propensity. Moreover, wealth is certainly related to the wherewithall of a state to pursue social safety net programs. To the extent that the citizens of a state are economically well off, the incentive or need to provide social insurance may be diminished. And if leaders have greater resources (as wealthy states do) and less demand to expend those resources on domestic social-insurance programs, more re-
sources can be allocated to national security and foreign policy. As a result, wealth rather than social insurance may influence the choices a leader can make; controlling for state wealth is then necessary. We measure state wealth as real GDP per capita for each state in the sample. Not only should GDP per capita capture the wealth of the state relative to other states, but it also represents the wealth of the state distributed across its population; distributed wealth is an important notion given our primary hypothesis regarding social insurance which is, by its nature, redistributive.

**MODELING SOCIAL INSURANCE AND CONFLICT**

**Methodology**

For our analysis, the unit of observation is the state-year. Since states can initiate more than one dispute in a given year, but the number is constrained by zero, the data can be adequately represented as an event count (King, 1989). Event-count models simply assume that the number of events in a given time period is constrained at the bottom by zero and (theoretically) unconstrained above, although there will be some upper bound that is artificial in nature. The most common way to model event-count data is to assume that they are generated by a Poisson process. To model event-count data with a Poisson regression model, we make assumptions about the structure of the data (and about the process that generated it). The events that make up the event count are assumed to be independent such that the occurrence of event three is not related in any way to events one or two, etc. When the event count is observed in the data, we expect that the mean number of events per time period is roughly equal to the variance. If contagion (or nonindependence) is present in the data, then we would expect that the data would be overdispersed and that the variance of the event count would be greater than the mean. If this is the case, then the Poisson model is inappropriate and the negative binomial model should be used.

Perhaps even more important to estimation and inference, our data, like many event counts, are characterized by a preponderance of zeros. As is often noted in studies of conflict, international conflict is a rare event. Not surprisingly, most of the states in our sample do not engage in conflict at all in most years, thus producing “zero” observations in the event-count dependent variable. In fact, 83% of the state-years we examine are characterized by peace; states do not involve themselves in international conflict most of the time.

This produces the chance that two separate, though related, processes are at work in our data. The preponderance of zeros suggests that perhaps some states have opportunities to fight, but for whatever reasons choose not to, while other states may simply not have had opportunities to engage in conflict. The upshot is that “zeros” in the data can indicate either of these conditions, though we cannot be sure which is which since the process that produces opportunities for conflict is unobserved. As a result, the event count is extra–Poisson (or extra-negative binomial) in nature and cannot be adequately modeled in standard event-count models.

As a result, we turn to the zero-altered class of event-count models, which allows us to model the two processes described above simultaneously. The zero-altered or zero-inflated approach allows us to model the likelihood that an observation in which
no event occurs is equal to zero because no opportunity for an event presented itself or that, though an opportunity presented itself, the observation made the behavioral choice not to engage in an event. In terms of our analysis, we can model the likelihood that a state *can* engage in militarized conflict in a given year and then model the amount of conflict in which it chooses to engage, given that it has the opportunity. Our fundamental focus remains on the event-count stage of the model since we are interested in how leaders can temper the attentiveness of domestic audiences as they engage in foreign policy. The zero-inflated stage of the model effectively allows us to control for the possibility that states may frequently not have a reasonable opportunity to engage in international conflict. As a result, we will treat the inflation stage as a set of control variables and will not state hypotheses, though the variables we choose to include in this stage are variables that seem likely to distinguish states that will have opportunities for conflict from those that generally lack such opportunities. The models we report include measures of democracy and power in the inflation stage, so our structural equations appear as follows:

\[
\text{No Opportunity} = \alpha + \text{Democracy} + \text{Power} + \nu_{it} \tag{1}
\]

\[
\text{Conflict Propensity} = \gamma + \text{Social Insurance Effort} - \text{Social Insurance Effort}^2 - \text{Democracy} + \text{Power} + \text{Wealth} + \varepsilon_{it} \tag{2}
\]

Equation 2 represents our model of interest, while Equation 1 predicts whether observations belong to the class that must have a count of zero. Note that the inflation stage (Equation 1) predicts the likelihood an observation will have a zero count, so, in our case, it is predicting the likelihood a state has no opportunity to engage in militarized conflict in a given year. The ultimate effect of the inflation stage is to adjust the conditional mean (and the variance) of the underlying Poisson or negative-binomial model. If our data indeed represent two processes (as our tests will indicate below) and we were to employ standard event-count models, the coefficients and expected values we would generate would be biased by a factor of \(\psi\), where \(\psi\) represents the probability that some “zero” observations are generated by another process (Long, 1997, pp. 243–247).

Not only must we concern ourselves with the possibility that the data are generated by two related processes, but we must still be aware of overdispersion or contagion in the dependent variable. Ultimately, as the results reported below indicate, we employ the zero-inflated negative binomial (ZINB) model, which simultaneously accounts for overdispersion (consistent with the negative-binomial distribution) and for the two-stage process described above.

**EMPIRICAL RESULTS**

Our initial models examine the independent effects of social-insurance effort on conflict propensity. We examine these effects on two types of conflict behavior: dispute initiation and total dispute involvement. Our hypothesis is primarily related to the initiation of international conflict, since we argue that leaders are either more or
less constrained in their foreign-policy choices depending upon their domestic conditions. However, we also believe that the decision regarding how to respond to hostile military action when a state is targeted is potentially affected by social insurance as well. In particular, a leader facing a hostile external threat may determine that ignoring the threat or turning to negotiation or even capitulation may be less costly, depending on the attentiveness of his domestic audience. Table 1 presents initial results and provides evidence that a state’s level of domestic social insurance influences its decisions regarding whether or not to involve itself in militarized disputes. The hypothesized differential effect appears in the form of a positive, significant effect of social-insurance effort, followed by a negative, significant effect of the squared term. Though lower levels of social insurance appease domestic audiences to the extent that their leaders are more able to engage in military action, higher levels of social-insurance expenditures are negatively associated with a leader’s ability to use force. In the latter case, either domestic audiences are increasingly demanding as they seek more goods from the welfare state, or leaders are less able to conduct entrepreneurial foreign policy because their budgets are targeted heavily toward providing domestic goods.

These preliminary results emerge in the context of a process wherein some states

<table>
<thead>
<tr>
<th>Variable</th>
<th>MIDs initiated</th>
<th>Total MIDs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \hat{\beta} )</td>
<td>S.E.</td>
</tr>
<tr>
<td>Social insurance</td>
<td>0.070***</td>
<td>(0.026)</td>
</tr>
<tr>
<td>Social insurance(^2)</td>
<td>–0.002***</td>
<td>(0.0007)</td>
</tr>
<tr>
<td>Constant</td>
<td>–0.86***</td>
<td>(0.14)</td>
</tr>
<tr>
<td><strong>Binary Stage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.58***</td>
<td></td>
</tr>
<tr>
<td>Democracy</td>
<td>0.914</td>
<td>(.513)</td>
</tr>
<tr>
<td>Power</td>
<td>–1562.29***</td>
<td>(227.38)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.02***</td>
<td>(0.387)</td>
</tr>
<tr>
<td>( \alpha )</td>
<td>1.66***</td>
<td>(0.269)</td>
</tr>
<tr>
<td><strong>n</strong></td>
<td>1024</td>
<td></td>
</tr>
<tr>
<td><strong>n zero</strong></td>
<td>847</td>
<td></td>
</tr>
<tr>
<td><strong>n nonzero</strong></td>
<td>177</td>
<td></td>
</tr>
<tr>
<td>( \chi^2 )</td>
<td>36.36***</td>
<td></td>
</tr>
</tbody>
</table>

\(^2\)Zero-Inflated Negative Binomial Estimates, robust standard errors in parentheses; significance tests are two-tailed, * \( p \leq .10 \); ** \( p \leq .05 \); *** \( p \leq .01 \)

\(^2\)This section of the table reports the “inflation stage” estimates, predicting the likelihood any state belongs to the “zero-count” group in a given year. The Vuong \( z \) statistic is appropriate for testing non-nested models; it provides a significance test of the null hypothesis that the inflation stage does not contribute to the model—we reject that hypothesis in both models.
choose not engage in the use of force while others have, for all intents and purposes, little chance to use force. The ZINB models allow us to control for these two portions of the population of states through the binary stage. As Table 1 indicates, democracies are no more likely to have opportunities to use force than are their autocratic counterparts. Powerful states, on the other hand, are less likely than weak states to lack such opportunities.20

Though these initial estimates provide support for our hypothesis, we also have argued that the effect of social-insurance effort might be tempered by regime type, state power, and state wealth. Table 2 models conflict propensity as a function of the differential formulation provided above, but adds these controls to the models. The control variables have substantial effects on the likelihood of conflict, but do not undermine the effect of social insurance on conflict propensity. In both models, powerful states engage in more annual disputes than do weaker ones, though wealthier states appear less conflict-prone than relatively poorer countries. As hypothesized, the effect of social insurance is positive and significant, suggesting that, at lower levels, increases in social insurance effort positively influence the likelihood of dis-

### Table 2
Zero-Inflated Negative Binomial Models of Social Insurance and Dispute Involvement, with Controls†

<table>
<thead>
<tr>
<th>Variable</th>
<th>MIDs initiated</th>
<th>Total MIDs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \hat{\beta} ) &amp; S.E.</td>
<td>( \hat{\beta} ) &amp; S.E.</td>
</tr>
<tr>
<td>Social insurance</td>
<td>0.064***       &amp; (0.029)</td>
<td>0.022       &amp; (0.017)</td>
</tr>
<tr>
<td>Social insurance(^2)</td>
<td>-0.002***     &amp; (0.0007)</td>
<td>-0.0008*** &amp; (0.0003)</td>
</tr>
<tr>
<td>Democracy</td>
<td>-0.204         &amp; (0.282)</td>
<td>-0.153      &amp; (0.217)</td>
</tr>
<tr>
<td>Power</td>
<td>18.82***       &amp; (2.48)</td>
<td>15.5***     &amp; (1.87)</td>
</tr>
<tr>
<td>Wealth</td>
<td>-0.00009***    &amp; (0.00003)</td>
<td>-0.000015  &amp; (0.000013)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.691***      &amp; (0.146)</td>
<td>-0.227***   &amp; (0.104)</td>
</tr>
</tbody>
</table>

**Binary Stage\(^1\) Vuong \( z \)**

|          | \( \hat{\beta} \) & S.E. | \( \hat{\beta} \) & S.E. |
|----------|---------------------|--------|---------------------|--------|
| Democracy| 0.456 (.666)        | 0.230 (0.616) |
| Power    | -1828.68*** (285.76) | -1073.30*** (215.96) |
| Constant | 2.12*** (0.412)     | 0.672** (0.301)  |
| \( \alpha \) | 1.41*** (0.307) | 0.70*** (0.358) |
| \( n \)  | 1004                | 1004 |
| \( n \ zero \) | 830                | 662 |
| \( n \ nonzero \) | 174                | 342 |
| -2LL \( \chi^2 \) | 91.34***           | 122.20*** |

†Zero-Inflated Negative Binomial Estimates, robust standard errors in parentheses; significance tests are two-tailed, * \( p \leq .10 \); ** \( p \leq .05 \); *** \( p \leq .01 \)

\(^1\)This section of the table reports the “inflation stage” estimates, predicting the likelihood any state belongs to the “zero-count” group in a given year. The Vuong \( z \) statistic is appropriate for testing non-nested models; it provides a significance test of the null hypothesis that the inflation stage does not contribute to the model—we reject that hypothesis in both models.
pute involvement. Further, the second order effect is significant and negative, suggesting that, as social insurance occupies a greater proportion of state budgets, the opportunity to engage in foreign conflict is curtailed. The differential effect of social insurance on conflict propensity is robust even in the presence of control variables.

Assessing the substantive effects of social-insurance effort on conflict propensity,

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure1}
\caption{Effect of social insurance on probability $y = j$.}
\end{figure}
however, is not straightforward in the ZINB context. The effects of independent variables are dependent on the levels of other variables, on the overdispersion parameter $\alpha$, and on the inflation adjustment to the conditional mean, $\psi$. We summarize these effects in two different ways in Figure 1. The top panel (a) illustrates the differential effect of social insurance on the summed, mean, and median predicted probabilities of initiating conflict. Predicted probabilities for ZINB models are computed for each individual value of $y$ and then aggregated in order to summarize the effects of social-insurance effort on conflict propensity. As all three curves clearly indicate, the effect of social-insurance effort on conflict propensity is decidedly nonlinear. The uppermost curve represents the effect of social-insurance effort on the probability of conflict for the sum of all disputes, while the lower lines represent the mean and median effects. These latter indicators are skewed to some extent by the near-zero probability of the large numbers of disputes. The curves, taken as a whole, however, indicate not only the differential effect of social spending on leaders’ abilities to conduct military affairs, but also suggest that the direction of the effect changes at relatively modest levels of social-insurance effort. States spending less that approximately 18% of their budgets on social insurance are increasingly able to pursue military solutions to the challenges they face in their foreign relations. However, that freedom to use military force declines after social spending exceeds 18% of the total budget. The bottom panel (b) in Figure 1 illustrates the same relationship and a similar inflection point in the parabolas, but plots the predicted probability that $y = j$, for the positive counts of 1–4 annual disputes. The likelihood of 1 dispute is greater than the likelihood of either 2, 3, or 4 disputes, consistent with event-count distributions. The differential effect of social-insurance effort on any level of conflict propensity is abundantly clear in the curves in panel (b), as is the inflection point at about 18% of total spending. The probability of any number of disputes increases to this inflection point, then decreases thereafter, ultimately approaching zero after social spending exceeds 50% of total spending. Since the highest level of spending in our sample is 63%, Figure 1 describes the impact of social insurance effort on dispute initiation in ways that are actually represented in our data.

It is also interesting to note that the median level of social-welfare spending in our sample is 12.5%. This suggests that the most interesting portion of the relationship, where the function approaches a maximum, is populated with a large number of states in our sample. While we cannot fully address the dynamics associated with the increasing function turning negative (the inflection point in the parabola), we can say that many states in the international system have spending levels that place them in this particular region of the graph.

While Figure 1 reports predicted probabilities, Figure 2 illustrates the differential impact of social-insurance effort on conflict propensity, reporting the expected value of the dependent variable (amount of conflict) depending on social-insurance effort. Expected values are somewhat more meaningful in the event-count context, as we can examine the effect of social insurance on the marginal changes in conflict propensity. The parabolas are expansive, stretching across the full range of social-spending values and reaching a zenith that predicts approximately .45 disputes per year for democracies that spend roughly 18% of their budgets on social spending and...
approximately .56 disputes for autocrats. These predicted conflict propensities are considerably above the mean conflict propensity for the entire sample (observed sample mean), which is .25 disputes per year.25 States that spend up to 18% of their budgets on social insurance are increasingly prone to initiate disputes; in fact, at that inflection point, states are far more likely than the average to initiate hostilities abroad (.45 annual disputes for democrats, .56 for autocrats, versus .25 for the entire sample).26

Figure 2 illustrates the extent to which leaders gain foreign-policy maneuverability by providing economic safety nets at home to assuage fears of dislocation and to sate domestic constituents. Leaders enjoy greater discretion over their foreign-policy decisions, especially more controversial ones such as those invoking the use of force, when they have sufficiently made some effort to provide economic security at home. However, as more and more resources are diverted to the social-insurance effort in order to maintain the domestic tranquility that affords leaders foreign-policy freedom, leaders become hobbled by the needs of their constituents and by the budgetary focus on domestic, rather than foreign, affairs.

Regional Variation

As is true in any pooled analysis, the states in our sample vary widely in their capacities, populations, and interactions. Given the wealth of variation we enjoy in our sample, it is appropriate to explore the potential consequences of this variation and to examine how well our results hold up as we control for features of the sample. One manner in which states in our sample vary is in how democratic they are; our
dichotomous measure does not allow any assessment of relative democracy, but only a comparison of democratic to autocratic states. We noted above that our democracy variable is measured in a conventional manner, but is rather inclusive using the cut-off of 6 on the Polity III scale. This cut-off point is reasonable since it includes more states that strongly exhibit democratic characteristics. However, it also emphasizes the overlap between democracies and high levels of social insurance. Though we defend the use of the cutoff point of 6, we also run models using the increasingly stringent criteria of 7, 8, 9, and 10. The differential effect of social insurance on conflict propensity persists no matter the definition of democracy, and the effect of democracy becomes negative and statistically significant at levels 8, 9, and 10, suggesting that more advanced democracies are less likely to use military force than are less advanced democratic states. Democratic states, especially industrialized democracies, during the time period of the study (1975–1990) often have implemented programs characteristic of the welfare state. The result is that resources are directed heavily toward domestic political and economic considerations and less heavily toward military alternatives (though some states like the U.S. provide notable exceptions). In an increasingly interdependent world where trade openness and cooperation are becoming more established norms and where trade openness may result in domestic economic displacement, it should come as no surprise that democratic states are focusing their resources more heavily on social insurance and less on the expensive, risky areas of foreign conflict.

Having mentioned the U.S. as a country that has continually explored military alternatives in its foreign-policy choices, it is appropriate to examine how our social-insurance result survives in subsamples of our original 69 states. If, for example, our finding is an artifact driven by the extraordinary wealth of the U.S. and Europe and by America’s extraordinarily frequent use of force, then a sample excluding those states should reveal that the effect of social insurance is either diminished or absent altogether. To test the robustness of our models, we systematically exclude regions of the world in order to assess the extent to which unobserved characteristics of particular states or regions may drive the relationship between social insurance and conflict propensity. However, the differential effect of social insurance on the amount of conflict in which a state engages remains intact regardless of which regions we exclude. For instance, our exclusion of states in Europe and North America produces results very similar to those reported in Table 2, indicating that the power, wealth, and conflict propensity of these industrialized states does not drive our statistical findings. Another manner in which we can assess regional variation and its impact on the relationship between social insurance and conflict is to include regional dummy variables. Including dummy variables for each region (excluding one as a base category) also produces results similar to those we report in the table. Many of the regional indicators are statistically significant, indicating the considerable variation in conflict behavior across region. However, the persistent statistical significance of the social-insurance coefficients suggests not only that the finding is robust, but that states across regions make similar trade-offs between social insurance and foreign-policy aggression.
CONCLUSIONS

Scholars have proposed a variety of ways in which domestic and international political processes are linked, yet few actually focus on how leaders can reduce the systemic and institutional constraints from which they might otherwise suffer. Though institutional rules and structures are often assumed to constrain leaders’ actions, leaders do have some recourse in that they can implement complementary policies in order to increase their discretion over foreign policy and perhaps increase the chance that they implement successful foreign policy. The analyses presented above support this notion and particularly suggest the purposiveness with which leaders might institute and enhance the functioning of the welfare state. However, as our theoretical expectations and empirical analyses indicate, the effect of the welfare state’s function on leaders’ freedom to act is tempered by the sheer effort leaders must put forth to satisfy domestic audiences. In fact, while leaders may succumb to the temptation to placate constituent demands for economic security, they risk an escalation in constituents’ demands for further guarantees of economic and social welfare. Though they may gain popular support or at least achieve discretion over foreign policy in the short-term, their long-term prospects for decision-making freedom are poor. The implications are twofold. First, the growth of the modern welfare state, though perhaps borne from economic crisis and of economic necessity, can also be seen as a tool leaders use to immunize themselves against economic fluctuations and downturns. Moreover, they can invoke the power of the welfare state to provide guarantees of economic security so that they can pursue policies they might not otherwise have the political capital to pursue. Second, however, while the tools of the welfare state may provide leaders some degree of decision-making autonomy, the growth of the welfare state may make domestic budgetary demands so great that foreign-policy entrepreneurialism is not affordable. Though leaders may have de facto foreign-policy freedom, the ability to act may be sacrificed on the altar of domestic spending priorities.

The implications of a social-insurance–foreign-policy link, however, are not limited to leaders’ political survival nor simply to the phenomenon of the welfare state. Insofar as leaders can effectively manipulate the availability of foreign-policy options by adjusting domestic economic policy, they can also affect the strategic interactions in which their states engage in the international system. A leader who can expand his foreign-policy action set by placating his domestic constituents may be more effective in signaling resolve to a potential international opponent. On the other hand, a leader less bound by domestic constraints may find that his opponents see him as able to bargain and compromise without paying domestic prices that he might have paid were he constrained more heavily by an attentive and critical domestic audience. In other words, when leaders resort to social-insurance effort to make their foreign-policy decisions less constrained, they may either strengthen the credibility of their threats or weaken their positions by reducing their abilities to invoke domestic audience costs.
NOTES

1. At a minimum, research on the link between internal and external conflict and scapegoating includes work by sociologists such as Sumner (1906), Coser (1956), and Simmel (1964) and by political scientists including Rosencrance (1963), Rummel (1963), Tanter (1966, 1969), Wilkenfeld (1968), and Hazelwood (1975). Blainey (1973), however, suggests that this “scapegoat” hypothesis is not entirely plausible.

2. Ostrom and Job (1986), Morgan and Bickers (1992), and James and Oneal (1991) represent only a small portion of research on the diversionary hypothesis, but their articles are probably those most often associated with diversion.

3. Much of the literature on strategic interaction refers to Schelling (1960) as the seminal work on strategy and international conflict.

4. Bueno de Mesquita et al. (1999) claim that democrats have powerful electoral incentives to prevail in military conflict and thus choose the conflicts in which they engage carefully. Once engaged in conflict, democrats have incentives to allocate resources and devote themselves to winning in ways that autocrats might not. They do not claim that autocrats are indifferent between winning and losing, but that democratic incentives are more powerful given the likelihood that foreign-policy failure will turn a democrat out of office. Bueno de Mesquita and Siverson (1995) provide empirical evidence that democrats who lose wars have shorter tenures in office than do autocrats who lose wars.


6. Using force abroad is a risky proposition from the diversionary perspective on two grounds. First, the military exercise itself might fail, thus contributing to perceptions that the leader is not competent in foreign policy. Second, whether the military foray succeeds or not, it might not successfully divert attention from whatever domestic circumstance prompted diversionary action in the first place.

7. Prospect theory claims that actors’ risk orientations might vary with regard to expected gains or losses; one might be risk-averse with respect to gains, but risk-acceptant with respect to losses, for instance (e.g., Levy, 1992a, 1992b). While we argue that leaders implement policies to reduce the economic risk experienced by the population, we make no claims about risk orientation, nor about gains or losses. We prefer to retain the generality of the assumption that leaders seek to retain office, an assumption consistent with rational choice and prospect theory.

8. Parker (1992) argues that these simultaneous goals lead members of Congress to seek ways to satisfy their constituents so that their constituents object less forcefully when members pursue policies constituents might oppose.

9. Richards, Morgan, Wilson, Schwebach, and Young (1993) suggest that executives having trouble demonstrating their competence in domestic policy might turn to foreign policy in order to show that they are competent. Bueno de Mesquita and Siverson (1995) produce a formal model showing that audiences evaluate leaders on the basis of prior policy successes and failures. Similarly, Smith (1998, p. 626) argues that audiences select leaders on the basis of ability rather than on policy positions. Hess and Orphanides (1995) make a similar argument.

10. For instance, Bartels (1991) and Stein and Bickers (1994) both demonstrate the effect of pork-barrel politics on electoral outcomes.

11. Moreover, leaders have incentives to rely upon and exploit existing social safety nets in order to provide themselves with political protection from economic upheaval.

12. Papayoanou (1996, p. 68) claims that Bismarck “elucidat[ed] arguments about the need for economic self-sufficiency and a powerful military.” However, Bismarck’s imperialist foreign-policy goals suggest that military growth was a priority, one that he pursued in part by protecting domestic interests via social-insurance programs.

13. However, deficit spending provides one method by which leaders can pursue both guns and butter. While deficit spending is not uncommon, leaders are often still forced to make trade-offs like those Britain made in the years prior to World War I.

14. Data for our dependent variables are taken from the MID (2.1) data set.
15. While the social-insurance effort variable ranges from 0 to 63%, one-third of our cases (state-years) spend less than 6% of their annual budgets on social insurance. To be sure our results are not driven by outliers, we replicate all analyses removing observations greater or less than 1 standard deviation from the mean; all results hold.

16. While this cut-off point is arbitrary, it is one commonly used in the literature. Additionally, we find that the most exclusive measure of democracy, one relying upon a cut-off point of 10, yields approximately the same empirical results.

17. See, for example, Organski and Kugler (1980), Morrow (1989), Bremer (1992), and Bueno de Mesquita, Morrow, and Zorick (1997).

18. Our measure of real GDP per capita is taken from the Penn World Tables, mark 5.6 (Heston and Summers, 1991). We use the level of GDP per capita, rather than the annual change, because our expectation is that short-term changes in national prosperity are not likely to elicit major structural changes in either foreign or social policy. Rather, the capacity of the state to undertake foreign-policy or social programs is a function of the level of wealth the state enjoys.

19. Long (1997, p. 243) refers to these two processes as “zero” and “positive” counts, either of which can be “generated by a Poisson process.” Also see Zorn (1998) and Clark and Regan (n.d.) for applications of split population models.

20. Coefficient in the “inflation” portion of the model indicates the effects of variables on the probability an observation will experience or has a zero probability of experiencing a positive number of events. Thus, a positive coefficient means “x increases the chances of a zero or decreases the chances of ever experiencing a positive number of disputes.” If we expect a variable x to reduce the chances of a zero (and thus have a negative coefficient), we’d expect it to have a positive effect on the chances of observing some positive number of disputes (see Long, 1997, p. 246).

21. Predicted probabilities for positive counts in the ZINB model are computed by

\[ \hat{P}(y|x) = (1 - \hat{\psi}) \frac{\Gamma(y + \hat{\alpha}^{-1})}{y!\Gamma(\hat{\alpha}^{-1})} \left( (\hat{\alpha}^{-1} + \hat{\mu}) \right)^{-y} \] (\hat{\alpha}^{-1} + \hat{\mu})^{-1}

where \( \hat{\alpha} \) is the dispersion parameter, \( \hat{\mu} \) is the conditional mean (equal to \( e^{\hat{\beta}} \)), and \( \hat{\psi} \) is the adjustment to the conditional mean (\( \hat{\psi} = F(z|\hat{\gamma}) \)).

22. Among the nonzero categories of the dependent variable, the frequencies of 1, 2, 3, or 4 disputes are greatest. We present only these probabilities since they are the most substantively interesting and for the sake of clarity in the figure.

23. Spain is the state with 63% social spending. In fact, Spain has the top five highest spending levels in our sample and, in these five years, initiates zero MIDs and was involved in one MID in two of these years. These five cases seem representative of the relationships we describe. However, as footnote 15 indicates, our results are robust when we exclude cases (like Spain) above or below 1 standard deviation from the mean.

24. Expected values for the ZINB and ZIP models are computed as \( \mu - \mu\psi \), the conditional mean adjusted for the probability a state has no opportunity to engage in conflict in a given year.

25. The observed sample mean is simply the mean number of disputes occurring per year. This mean is relatively low since 83% of the state-years in the sample are peaceful. The social insurance observed mean by group is the mean number of disputes for each integer value of social-insurance effort and is plotted for reference.

26. As the event-count models are nonlinear in the parameters, it is useful to examine the effect of the variable of primary interest (social spending) for democrats and autocrats separately. Thus, we compute expected values for each and plot them separately. The graph illustrates that democrats and autocrats experience the same trade-off between social spending and military activity, though the difference is rather small (consistent with the insignificant parameter on democracy reported in Table 2).

27. We do not report these results since we believe that these increasingly exclusive definitions of democracy fail to adequately represent states that exhibit many democratic characteristics. However, this finding supports claims that democracies are individually more pacific than autocratic states. Moreover, it suggests that monadic pacific behavior appears primarily in more advanced democracies; the phenomenon does not seem to apply universally to states with democratic structures.
28. The states in our sample fall into the following regions: North America, Latin America, Europe, Africa, Asia, and the Middle East. Considerable variation across these regions is obvious given regional dynamics (such as the persistent Arab–Israeli conflict in the Middle East). Controlling for this regional variation does not change our substantive results.

29. In our initial discussion of the data we collect and analyze, we commented on the paucity of data available for African states and the potential bias this shortage might introduce. Zero-inflated models of social insurance and conflict in Africa strongly confirm that, though African states generally have lower levels of social insurance and fewer episodes of international conflict, they experience the same apparent trade-off between providing social insurance and being able to conduct military affairs. This is the same process and the same differential effect we anticipated in general for the entire sample, but we are able to confirm it for a subsample of states that we might expect would be less likely to exhibit the same behavior.

REFERENCES


**CONTRIBUTORS**

David H. Clark is Assistant Professor of Political Science, Binghamton University (SUNY). His research appears in the *Journal of Conflict Resolution*, the *Journal of Politics, International Interactions*, and elsewhere.