Journal of Conflict Resolution
http://jcr.sagepub.com/

Coming into Money: The Impact of Foreign Aid on Leader Survival

Amanda A. Licht

Journal of Conflict Resolution 2010 54: 58 originally published online 16 November 2009
DOI: 10.1177/0022002709351104

The online version of this article can be found at:
http://jcr.sagepub.com/content/54/1/58

Published by:
SAGE
http://www.sagepublications.com

On behalf of:
Peace Science Society (International)

Journal of Conflict Resolution
54(1) 58–87

DOI: 10.1177/0022002709351104
http://jcr.sagepub.com
SAGE

Coming into Money: The Impact of Foreign Aid on Leader Survival

Amanda A. Licht[1]

Abstract

Donors are more likely to send aid to leaders facing elevated risks of losing power, but targets' ability to benefit from this assistance is conditioned by regime type and political processes. The institutionalization of winning coalitions' loyalty across regime type follows opposite patterns, supporting opposite temporal dynamics across regime types. Democratic leaders' coalitions are firmest immediately after taking office, and aid is of most assistance to them at that time. As competition and dissatisfaction grow, aid becomes a political liability. In small winning coalition systems, however, coalitions become more solid over time, facilitating increasing benefits from aid. Without a firm coalition, however, external resources are destabilizing to autocratic leaders. Analysis of 4,692 leader years from 1960 to 2001 using a censored probit model supports these expectations.

Keywords

domestic politics, foreign aid, foreign policy, political survival

Many foreign policy actions are intended to reward, support, or entice cooperation from leaders of smaller states. Such "positive sanctions" include preferential trade agreements, military alliance, and development assistance (cf. Baldwin 1971, 1985). Indeed, wealthy and powerful states proffer these foreign policy carrots on a regular basis, sometimes with blatantly strategic aims. In recent years, for example, the United States has established beneficial relationships with many Central Asian and Middle Eastern states, providing aid in return for cooperation in the War on Terror. Even when donor nations hope to achieve more humanitarian goals, friendly tactics possess

[1]University of Iowa, Iowa City, USA

Corresponding Author:
Amanda A. Licht, Department of Political Science, University of Iowa, 341 Schaeffer Hall, Iowa City, IA 52245, USA
Email: amanda-licht@uiowa.edu

substantial potential to alter the domestic risks of leaders. Ignoring this capacity may obscure a mechanism essential to the ultimate success of cooperative foreign policy.

Survival-driven leaders will weigh the personal benefits and costs generated by foreign policy targeting. A positive sanction that does not translate into a desirable amelioration of domestic political risks is not likely to persuade targeted leaders to make the requested changes. Investigations of friendly foreign policy, however, usually focus on the ultimate, macroeffects such as democratization and economic growth, leaving the potential link to leaders understudied.[1] The current project straddles this gap in our understanding of foreign policy and leader survival, studying how the impact of cooperative foreign policy on targeted leaders is conditioned both by institutions and by political processes. Foreign aid provides an excellent embarkation point for further investigations of the link between foreign policy and leader survival; the advanced world invests considerable sums in development assistance, but its effectiveness is frequently called into question by empirical studies (Chenery and Strout 1966; Regan 1995; Geddes 1994; Kosack and Tobin 2006; Dalgaard, Hansen, and Tarp 2004; Brautigam and Knack 2004).

In the following, I build a theory of foreign aid as a tool of influence the effectiveness of which depends upon domestic institutions and political processes and the targeting of which is not random. If this "positive sanction" (Baldwin 1985) holds the potential to assist targeted leaders in their attempts to maintain power, then for two reasons rational donor states' aid monies will likely be spent on those targets facing higher domestic risk. First, aid may represent emergency funds to prevent the overthrow of friendly regimes. Second, those most in need may be the most likely to be appreciative, presenting a better investment opportunity for donors.

The most direct means by which aid could benefit targeted leaders is by providing additional resources for application to their usual tenure-seeking activities. These resources allow some leaders to satisfy key constituencies, cementing their place in power. Raw funds, however, are not equally fungible for all types of leaders at all points in their careers. A static view of institutions suggests that autocratic leaders will benefit more from aid. Because they are less constrained by institutional checks, and responsible to a narrow swathe of the population, external resources fit directly into the tenure extension activities of small winning coalitions. Democratic leaders, on the other hand, institutionally constrained and obligated to at least a plurality of the voting population, have little to gain and much to lose from expropriating development assistance for personal aggrandizement.[2]

Politics, however, is not static. Dynamic political processes within regime types condition the effect of aid on leader survival. For nondemocratic leaders whose replacement is less institutionalized, aid inflows initially produce a destabilization of political competition. The "lootable" aspect of external resource flows encourages competition at a time when their winning coalitions remain poorly institutionalized. With the cementing of loyalties, this destabilizing impact reverses, allowing the utilization of aid in the manner described above. Democratic leaders, on the other hand, are likely to benefit from aid during their "honeymoon." Over time, the political

opposition gains leverage over democratic leaders who have not managed to convert aid inflows into public goods increases, turning development assistance into a political liability.

I test these hypotheses on a dataset of 4,954 leader years covering 820 separate leaders from 1960 to 2001, using a censored probit that accounts for strategic aid allocation in the selection stage and models duration dependence in the outcome stage. In nondemocratic systems, aid can insulate long-lived leaders over time but is dangerous for the inexperienced. The impact on aid-receiving democratic leaders is reversed. While aid is of substantial help during the first years, it becomes a liability over time. These findings support the expectation that development assistance's effectiveness as a tool of tenure extension will differ across institutions. The analysis also suggests that processes of institutionalization play a formative role in the impact of aid on recipients. Further, tests uncover evidence suggesting that donor states consider the need and likely pliancy of their targets when allocating aid. Leaders at a higher risk of losing office are significantly more likely to receive aid than are those more secure in their positions.

From 1960 to 2000, the Organization for Economic Cooperation and Development (OECD) reports the donation of more than $786 billion in development assistance to countries around the world.[3] Based on my results, we may conclude that much of allocated aid has fallen in the hands of leaders who stood to gain (or lose) personally from the windfall. The cooperative moves of powerful countries relate to the domestic politics of targeted states in real, though complicated, ways. An understanding of the friendly foreign policy toolkit holds academic and pragmatic value. It will help international relations scholars better explain and predict the reactions of domestic elites and assist policy makers in the efficient allocation of resources.

A brief review of the literature connecting leader tenure and foreign policy decisions follows. I then elaborate the theoretical argument and hypotheses regarding the impact of institutional arrangements and dynamic processes. In the third section, I present the data and research design. The fourth section includes discussion of the statistical results. Finally, I conclude by considering the import of these findings for the literature and the decisions of policy makers.

Foreign Policy Targeting and Leader Survival

Most empirical investigations of leader tenure focus on domestic variables and personal characteristics, such as institutions, country wealth and size, economic stability, and personal time in office (Bienen and van de Walle 1992; Londregan and Poole 1990; Chiozza and Choi 2003). Despite the clear effects of internal forces, room remains for external intervention to affect leaders' tenure. Whether or not they are designed to do so, many foreign policy decisions hold the potential to help or hinder targeted elites. Studies of foreign policy and leader tenure fixate on hostile foreign policy acts' potential to affect leaders by tapping into domestic dynamics. The literature on diversionary theory, rally effects, and war casualties posit that decisions to engage in conflict affect

leader duration through domestic approval (Mitchell and Prins 2004; Lai and Reiter 2005; Mueller 1971). Rather than the success or failure of domestic decisions, the current project investigates the impact of *external* decisions on leaders' ability to stay in office. Research in this vein demonstrates the conditioning of the negative effect of military and economic conflict on leader tenure by target regime type (Chiozza and Goemans 2003, 2004; McGillivray and Smith 2006; Marinov 2005).

International relations scholars often interpret the business of international politics as essentially conflictual. Most interstate interactions, however, feature cooperation. Great powers wield a full range of strategies for rewarding their allies and enticing future cooperation, but traditional studies have focused in on the macroresults or on the targeting process of these policies rather than on the link to leaders. Studies of official development assistance, for example, tend to focus on the fulfillment of donors' humanitarian goals. Donor nations profess a desire to improve human rights, work toward further democratization, and encourage economic stability through their aid allocations, but success in achieving such goals remains mixed. Regarding economic growth and stability, economists find that aid's impact is highly conditional on domestic socioeconomic and climatic circumstances (Chenery and Strout 1966; Burnside and Dollar 2000, 2004; Dalgaard, Hansen, and Tarp 2004; Kosack and Tobin 2006). Research on the ability of aid to promote human rights and democratization varyingly finds that assistance produces no statistically significant improvements (Regan 1995; Knack 2004) or theorizes that inflows of foreign money will damage democratic accountability and government capacity (Geddes 1994; Svennson 2000; Brautigam and Knack 2004). Researchers often blame the division between sincere humanitarian goals and strategic instrumental goals for the "failure" of donors to send aid where it is most likely to "work" (cf. Collier and Dollar 2002; Devarajan, Dollar and Holmgren 2001; McKinlay and Little 1977).

A new strand of the literature, highly reliant upon Bueno de Mesquita and colleague's "selectorate theory" (cf. Bueno de Mesquita et al. 2005), directly entertains the link between aid and leader survival. Lai and Morey (2006) and Bueno de Mesquita and Smith (2007, 2009) apply similar lines of reasoning to conclude that leaders who are responsible only to a small portion of the population, and thus accustomed to working for extended tenure through private payoffs and stockpiling, will find these activities to be directly expanded by external resource flows. They argue also that democratic leaders, tied to the interests of a far larger population, will find the process of parlaying aid into public goods less efficient. Kono and Montinola (2009) produce an extension of the selectorate model that leads them to emphasize cumulative aid distributions over contemporary flows. In the only statistical evaluation of this question of which I am aware, Kono and Montinola find that autocratic leaders are assisted by aid only in the long term (measured by the sum of aid allocated to them over their tenure), while democratic leaders derive a very small benefit from aid received more recently.

This provocative, new branch of the literature promises to generate more interest in the future. These studies, however, fall short of an accurate representation of leaders'

incentives in the game of foreign aid. Though selectorate theory has redirected our attention in profitable ways, it also tends to produce a static picture of the elites in question. Certainly, intuition and evidence suggest that politics rarely stands still. Leaders' risk of losing power changes over time (Wright 2008; Chiozza and Goemans 2004; Bueno de Mesquita and Siverson 1995; Bienen and Van de Walle 1992), and leaders face different types of pressure at different points in their careers. Even Bueno de Mesquita et al. (2005, 100) acknowledge that it should take some time for winning coalitions to solidify and thus for the "logic of political survival" to manifest. Recent scholarship has incorporated leaders' experience in office as a theoretical explanation for conflict behavior (cf. Gelpi and Grieco 2001; Chiozza and Choi 2003; Wolford 2007). Most pertinent to the project at hand, Wright considers the impact of survival probability on the likelihood of autocratic leaders expropriating aid monies to private purposes versus funneling them into growth-producing endeavors.

Furthermore, analyses of aid's impact on leader tenure must also consider the strategic incentives of donor states. Bueno de Mesquita and Smith (2007, 2009) demonstrated that allocation patterns appear to be driven by calculation of the leverage likely to result. If donors send aid in the hopes of achieving something, then two types of endogeneity will surface in the analysis of aid and leader survival. Most obviously, the "treatment" of development assistance has not been randomly assigned. Leaders who get aid are different from leaders who do not. Their countries are likely more poor, possibly less free, and probably closer to conflict. This pattern of strategic allocation creates a nonrandom sample of aid-receiving elites and may interfere with estimation strategies that do not correct for the selection. The possibility of donors considering the level of risk faced by prospective targets introduces a second possible source of endogeneity. Donors who intend to shore up friendly administrations abroad would be foolish to spend their money on the well entrenched. Further, those looking for the type of aid-for-policy deals discussed by Bueno de Mesquita and Smith (2007, 2009) should look to leaders with elevated risk at home. The overcomfortable leader has little need of aid's tenure-extending promises and is, thus, generally unlikely to find aid worth the domestic trouble of changing policies. The group of aid-receiving leaders, then, may face higher levels of risk ex ante.

In the argument developed below, I tackle these theoretical and statistical challenges, incorporating the expectations of selectorate theory with the recognition of over-time dynamics and strategic allocation. Donors send aid where they believe it to be of most strategic use, while both institutions and temporal political processes condition the role aid plays in reducing recipients' risks. Testing this argument requires explicit modeling of both possible endogenous processes and of temporal dynamics. Following the theory section, I introduce an appropriate statistical model.

Coming into Money

This theory shares two foundational assumptions with the selectorate theory (Bueno de Mesquita et al. 2005). First, leaders are rational and survival driven, acting so as to

stay in power as long as possible. As no secondary political goals can be obtained without this prior condition, leaders always have the incentive to decrease their risk of losing office. Second, all leaders owe their place in power to a portion of the population (the winning coalition) whose support is critical to the defeat of political challenges. The size of this core constituency is determined by institutions. The survival problem, for all leaders, involves the setting of a budget that maximizes the utility of the winning coalition through a mix of private and public goods.

One of the most frequently cited conclusions of the selectorate model is the tendency for those leaders with small winning coalitions to allocate more private goods; those with big winning coalitions, more public goods (Bueno de Mesquita et al. 2005, 79-93). Intuitively, raw resources spread among a group provide less utility as the size of the group increases. Provision of private goods becomes prohibitively expensive for democratic leaders, whose winning coalition consists of a plurality of the adult population. Autocratic leaders, in contrast, are rarely responsible to more than a handful of powerful military, economic, or party elites. This variation in relative size defines leaders' tenure-extending activities. For democratic leaders, the survival motive requires maximization of public goods; for autocratic leaders, private payoffs to the winning coalition (Bueno de Mesquita et al. 2005). Consequently, each individual member of a small winning coalition receives a higher payoff, and the gap between members and nonmembers increases.

Coupled with a higher likelihood of being excluded from future winning coalitions should their leader be defeated, this discrepancy engenders a high level of loyalty (Bueno de Mesquita et al. 2005, 92-93). Public goods produce nonexcludable benefits, meaning the perks of winning coalition membership decrease with the size of the group. The strength of the loyalty norm decreases in turn, producing a much higher baseline risk of losing office for democratic leaders (Bueno de Mesquita et al. 2005, 93). By affecting the loyalty norm, relative winning coalition size also determines the amount of overall spending required. When loyalty is high (winning coalition small), leaders may safely reserve more of the state budget for personal use "if they find themselves at risk of being deposed" (Bueno de Mesquita et al. 2005, 93). Thus, autocratic leaders' tenure-extending activities also involve the stockpiling of resources, while democratic leaders must commit to spending nearly all of their resources to fending off challengers in a low-loyalty system (Bueno de Mesquita and Smith 2007, 259).

Departing from Bueno de Mesquita et al., however, I also assume that dynamic processes of learning and institutionalization intervene, changing the optimal strategies and the competency of their pursuit over time. Working from these basic precepts, I explore the likely role of aid in the survival problem of targeted elites. I begin with a discussion of strategic actions in the allocation process. The theory proceeds to the target's incentives, considering the basic reason why aid should matter. Then, I outline the expectations of aid's impact on survival based on a static formulation of selectorate theory. Finally, I present an argument for the mediating effect of dynamic processes on leaders' ability to benefit from external assistance.

Aid Allocation

Donor states do not send their money overseas without expectations attached. Dudley and Montmarquette (1976, 133) profess the conventional wisdom on foreign aid most succinctly: "people usually give because they expect to get something in return. . . . In practice very few transfers are unilateral." While the types of "return" may vary along the spectrum of humanitarian to strategic, donor states should be expected to allocate aid somewhat rationally.

Consider two principle motivations for the allocation of official development assistance: (1) propping up friendly administrations abroad, and (2) "purchasing" policy concessions. Strategic donors will not pursue the first goal without considering whether the target requires the proffered assistance. Leaders enjoying rock-solid domestic situations have less need for external help than do those facing rocky times. If foreign aid operates to decrease targets' risks, then it will be best allocated to those leaders who have some domestic risks.

In the second case, an aid-for-policy deal such as those discussed by Bueno de Mesquita and Smith (2007, 2009), donors allocate aid as a salve to offset the costs of providing a suboptimal change in policy. This change may be purely strategic, but it need not be. Much development assistance, for example, arrives with stipulations for economic reform aimed at alleviating poverty and stimulating growth. To the extent that such concessions alter the status quo, they are politically costly for targets, at least in the short run. Leaders whose domestic prospects are good have little motivation to commit to these potential costs. Likelihood of losing office cannot decrease indefinitely; it is bounded. Leaders who are already secure, then, will reap little additional benefit from aid monies. Without elevated fear of losing office, the value added from receipt of aid will likely fail to offset the costs of concessions.

Given the dynamics of survival-motivated leaders, therefore, we should expect donors to look for opportunities where targets perceive a need for external assistance. Receiving elites are likely to be most receptive to the requests of donor nations when domestic mechanisms of support falter. Moreover, donors sometimes specifically intend their aid monies to substitute for domestic support. Strategic donors, then, may choose to send aid more frequently to high-risk cases.

Hypothesis 1: Aid allocation is more likely for leaders facing higher risks of losing office.

Foreign Aid and Leader Survival

Beginning with a survival-driven leader turns our interest to the means by which aid could contribute to a reduction in the risk of losing office. As a positive sanction, foreign aid may communicate the good will of the international community (Baldwin 1985). It may come with many strings attached; donor nations expect to see infrastructure development, improved human rights reports, or lower malnutrition levels. But its

concrete ramifications for survival stem from its ability to augment existing tenure extension activities, a capacity referred to here as *fungibility*. The principle of fungibility can be understood quite literally. Reporting requirements may not be strict enough to prevent some of the money from disappearing; institutions in the developing world are infamously opaque, making its path very hard to trace.

But the conversion of aid to personal benefit need not be dollar for dollar. Donors may restrict the direct diversion of foreign money to other purposes—whether by delivering actual goods or funneling provisions through nongovernmental organizations—without negating the instrumental benefit of aid. Describing fungibility, Kosack and Tobin (2006, 210) note, "[Aid] ends up largely substituting for government spending that would have occurred anyway, thereby freeing up government monies to be spent as the government wants." An influx of extra money for infrastructure development or welfare programs liberates domestic funds that might previously have been allocated to these sectors. If an outside power is feeding the people, the government need not. Empirical research supports the suspicion that aid operates to the benefit of local elites rather than to that of their populations or donors (Pack and Pack 1993; Boone 1995; Feyzioglu, Swaroop, and Zhu 1998; Kosack and Tobin 2006).

Whether through direct diversion or budgetary substitution, survival-driven elites aim to convert some portion of aid into reduced risk through reinforcement of their supporters' loyalty. No matter how restricted the system, political competition exists. For example, in one-party systems such as Japan under the Liberal Democratic Party, rival factions develop and compete for top positions. The solidity of one's political support base, therefore, is the first line of defense for survival-minded leaders. In the language of selectorate theory, loss of even a small portion of the winning coalition may result in the victory of a challenger. When loyalty in the winning coalition drops, legislative coalitions deteriorate, coup-makers recruit successfully, demonstrators gather in the street, and parties lose elections. Pleasing the winning coalition is not necessarily a ticket to overall domestic stability. In small winning coalition systems, the gap between the ruling elite and the people widens as loyalty-generating private transfers enrich the ruler's supporters. This may make for an inherently unstable situation as grievances develop and proliferate. But, for individual leaders, a happy, loyal winning coalition is a necessary—though not sufficient—condition for staying in office.

It follows that aid-receiving leaders will attempt to exploit fungibility to bolster their supporters' loyalty. Selectorate theory's view of leader strategy suggests that their success in this endeavor will vary by regime type. Institutions of leader selection determine the effectiveness of raw funds for purchasing continued tenure. Autocratic leaders responsible to the military and business elite could expect a much bigger bang for their buck than democratic leaders responsible to a plurality of their electorate (cf. Bueno de Mesquita and Smith 2007, 2009).

Institutions and the Fungibility of Aid

Given these dynamics, foreign aid will factor differently into leaders' attempts to extend tenure. Under conditions of small winning coalition and high loyalty, aid

presents a potentially valuable tool. An increase in available raw funds translates directly into higher payoffs for winning coalition members, without necessitating a cut in stockpiles. Aid, then, can assist nondemocratic leaders directly in both the cultivation of winning coalition satisfaction and in the accumulation of resources to counteract exogenous shocks (Bueno de Mesquita and Smith 2007; Lai and Morey 2006).

For democratic leaders, however, the ability of aid monies to contribute to winning coalition satisfaction may be stunted. The obligation to a large proportion of the population makes allocation of private goods inefficient. They must commit to spend nearly all government resources, yet the public goods provided disperse equally among the entire population, diminishing private perks for supporters and deadening loyalty (Bueno de Mesquita et al. 2005, 92-98). Any newly arriving resources must be turned toward the overarching goal of shoring up support in the interest of tenure, and this means providing further public benefits. But development assistance may prove an unreliable tool of democratic tenure extension.

Foreign aid boasts only a patchy record of public goods provision. Economic growth, for example, tends to follow aid allocation only in already thriving economies with good macroeconomic policy (Burnside and Dollar 2004; Kosack and Tobin 2006). Democratic leaders who are providing high levels of public goods, and thus already enjoy a relatively low risk of losing office, may manage to coax some additional public benefit out of aid flows. Leaders presiding over weak economies, and thus facing higher risks, cannot make external funds work to their advantage. Given that a weak economy is consistently a key predictor of aid allocation (cf. Lai 2003), aid will often have little or no discernable impact on existing levels of public goods.

Since funneling aid into further public goods provision may prove ineffective for extending tenure, democratic leaders could sometimes prefer to funnel it into private benefits for key political players. Consider, for example, the behavior of President Chiluba (1991-2001) in Zambia. Ex-post investigations by Transparency International have revealed that the president maintained a "slush fund . . . to appropriate public funds and 'dole' them out to favored or politically useful persons or groups without accounting for them" and that "Parliament allowed criminal funds to be operated throughout President Chiluba's tenure of office" (Yambayamba 2007, 5). The temptation and the actuality of such corruption exist in democracies. At the beginning of Chiluba's tenure, Zambia fell within the realm of democracy by the most commonly utilized measure in international relations scholarship, scoring a six 6 on the Polity2 composite scale (Marshall and Jaggers 2003). Over the course of his term, however, the president's corruption assisted in the deterioration of governance in Zambia to a mixed score. Democratic leaders operating in better institutionalized systems, however, face significant institutional barriers that make corruption an inefficient strategy.

In consolidated democracies, the oversight rights of other branches, freedom of the press, and the rule of law constrain the executive (cf. Linz and Stepan 1996, 7-14). When functioning properly and in conjunction, these characteristics should make it very difficult for leaders to divert aid monies and very politically costly to be caught in the attempt. In short, savvy democratic elites know that their institutional environment encourages continued democratic behavior (Gates et al. 2006); diverting foreign aid

directly to personal aggrandizement is simply not the most efficient way for them to utilize their resources.

For autocratic leaders, on the other hand, the line between state funds and private funds is blurry at best. Little domestic cost exists to prevent the efficient conversion of aid to private goods and benefits. A leader like the Congo's Mobutu Sese Seku simply delivers envelopes full of money to key elites in order to purchase their loyalty (Wrong 2007, 22). Regime type conditions incentives by determining both the ease of diverting aid money to private use and the effectiveness of such a strategy. For autocratic leaders, the conversion of aid to increased tenure is straightforward and should be relatively effective. Democratic leaders attempting to channel aid to personal benefit face dimmer prospects. The institutional argument produces the following hypotheses:

Hypothesis 2: The receipt of foreign aid will decrease the risks of autocratic leaders.

Hypothesis 3: The receipt of foreign aid will decrease the risks of democratic leaders less than it does nondemocratic leaders.

Dynamic Political Processes and Aid

Dynamic political processes further condition the ability of recipient elites to benefit from aid allocations. Leaders' risks do not remain fixed at the same level on their first and last days of office. Through general processes such as learning and institutionalization, politics *moves.* Underlying the particular circumstances and exogenous shocks of any given career, these general social processes contribute to the empirically noted declining baseline risk of losing office over time (Chiozza and Goemans 2004; Bueno de Mesquita and Siverson 1995; Bienen and Van de Walle 1992). These processes also alter the impact of aid on recipients. Over time, leaders' base of support follows a social process of institutionalization and decline. This process, shaped by the institutional pattern of competition, determines individuals' willingness to develop loyalty.

Institutionalization can be thought of as producing changes in the "need to please" one's winning coalition over time. For autocratic leaders, it takes time for confidence and loyalty to build due to the high risks of exclusion in the future. Newly instated nondemocratic leaders are the challengers described by Bueno de Mesquita et al. (2005) as unable to firmly demonstrate sufficient "affinity" for initial winning coalition members. Because some members of the new coalition remain uncertain as to their future membership, they will be more easily poached by early challengers. Lootable, externally derived aid resources may exacerbate the number and intensity of these initial challenges. Challengers can credibly promise uncertain members of the incumbent coalition a greater portion of aid resources. If able to hang on to power, however, nondemocratic leaders will dole out aid resources in the manner described in the previous section, creating a stronger and stronger bond between themselves and their coalition over time.

Democratic leaders' winning coalitions, in contrast, are likely to be most supportive and generous in their interpretation of performance immediately following the winning of office. The process of political campaign and election is essentially an exercise in the mobilization and cementing of political coalitions. Victory provides an intense burst of energy and cohesion. The popularity of elected officials is at its highest while the public remains under the influence of this feeling. During this honeymoon, the competition finds it socially distasteful to comment negatively, and mainstream media, consequently, present almost entirely positive evaluations of the new leader and government (Brody 1991, 27-44; Lockerbie, Borreli, and Hedger 1998). This favorable climate does not last. As time progresses, public approval lags, opening the door for legal political competition to further wear away at that support; political actors, finding their share of policy goods or power unsatisfying, criticize incumbent policy choices and performance (Altman 2000; Brace and Hinckley 1992, 21-44, 60-74; Light 1999, 36). In both presidential and coalition systems, these dynamics contribute to an increasing hazard of failure for democratically elected leaders (Warwick 1992; Altman 2000).

Because the public and the competition are inclined to feel favorably about democratic leaders earlier in their tenure than later, foreign aid may be of the most assistance during the democratic honeymoon. Even if aid does not produce substantial results during this time, observers may be willing to credit the leader with having obtained the funds or with maintaining friendly international relations. Over time, the natural process of political competition may combine negatively with the limited public returns of the received aid. Apparent inability to make aid work for the people over time provides the competition with a ready-made critique, especially if conditionality agreements have not been met. Even if aid has produced some public goods improvement, democratic leaders may find it difficult to claim credit. Many public benefits attributable to aid monies, such as infrastructure or education improvements, trickle down through government agencies or are provided directly by foreign nongovernmental organizations. The line of attribution in these cases does not point unambiguously back to the head of government but branches out to external powers, bureaucrats, and other government figures. Further, development assistance as a resource is not unique to the leader in power at the time of receipt. The extreme rarity of donor nations reducing aid amounts following democratic turnover bolsters domestic competition's ability to credibly promise to perform at least as well as the incumbent. The effect of foreign aid on democratic leaders, then, may be expected to change over time: initially it will be beneficial, but in the long run aid allocations may hurt.

Over-time dynamics in loyalty produce the following hypotheses:

Hypothesis 4: The ability of aid to insulate democratic leaders will decrease over time.

Hypothesis 5: The ability of aid to insulate autocratic leaders will increase over time.

Modeling Leader Survival

The data upon which this argument is tested consist of 4,692 leader years covering 791 separate leaders from 1960 to 2001. Data on these leaders come from Goemans, Gleditsch, and Chiozza's (2009) data set on the survival of leaders, Archigos version 2.5. Leaders of countries that donated aid in the current year have been excluded from the analysis in order to preserve a reasonable comparison category. Discrete event history data such as these require modeling of duration dependence (cf. Box-Steffensmeier and Jones 2004, 69-84; Beck, Katz, and Tucker 1998). Given the strategic allocation of aid monies, the data also require a selection stage (cf. Heckman 1979). Aid fails to be allocated in 543 of the leader years in question.

The censored probit model provides a straightforward means of addressing both problems (cf. Dubin and Rivers 1989).[4] This model simultaneously estimates two equations, one for selection the other for an outcome of interest. The selection stage will be allocation of aid; outcome will be failure by collapse of winning coalition. To control for the expectation that donors allocate aid to leaders with higher likelihood of failure, an endogenous instrument technique will be applied in the selection stage (cf. Maddala 1986). This involves obtaining probabilities of failure for each observation from the outcome stage and adjusting by the error of prediction.

The outcome stage of the censored probit will model leader failure as a function of aid's changing impact over time and across regime type. Institutional and temporal conditioning will be modeled through interaction effects. First, aid will be interacted with an indicator of regime type, then with the natural log of the targeted leader's experience in office. Conveniently, controlling for duration dependence can be accomplished simply by including the constitutive term for the time–aid interaction. Though studies often employ a more complex function of time—using cubic splines or cubic polynomials or estimating a separate slope coefficient for every year in analysis—the duration dependence in these data appears to be well captured by the logarithmic function.[5] Below, I discuss specific measurement choices.

First-Stage Measurement

The selection stage dependent variable is an indicator tagging whether the leader received a nonzero value of net official development assistance in the given year, based on the OECD's reporting. Given the high level of bureaucratic inertia in aid allocation processes, another indicator variable tags observations that received aid in the previous year.

The key theoretical variable for the selection equation is an estimate of leaders' baseline probability of losing office. Within the latent variable framework used by Maddala (1986, 242-47), the outcome stage of our censored probit model estimates a continuous, latent variable of the probability of losing office. Recognizing this indicates the need to correct for this recursive relationship between the two stages using an instrument. Maddala (1986, 246) recommends estimating the outcome stage, calculating a predicted value, and adjusting by the standard error of the prediction. Table 1

Table 1. Probit Regression of Winning Coalition Failure, Including Non–Aid Recipients

Logged aid/GDP to small winning coalition systems	0.2895***
	(0.0837)
Ln(time) × logged aid/GDP to small winning coalition systems	–0.0284**
	(0.0113)
Logged aid/GDP to big winning coalition systems	–0.6358***
	(0.1226)
Ln(time) × logged aid/GDP to big winning coalition systems	0.0740***
	(0.0176)
Big winning coalition	0.5697***
	(0.1095)
Ln(time)	–0.1514***
	(0.0309)
Lagged economic growth	–0.6774***
	(0.2484)
Lagged log of total trade	–0.0126
	(0.0186)
Intensity of civil conflict	0.1475***
	(0.0508)
SOUTHAM	0.2267***
	(0.0698)
SUBAFRICA	–0.1794**
	(0.0777)
SOUTHASIA	0.1759**
	(0.0892)
Constant	–0.6488***
	(0.2314)
Pseudo R^2	.0822
–2 pseudo–log likelihood	–1,330.84
Wald χ^2	246.89
Percentage correctly classified	90.85

Note: N = 4,752 leader years from 1960 to 2001, including 791 separate leaders. Robust standard errors, in parentheses, are clustered on leaders. In this specification, one unit was added to aid/gross domestic product (GDP) before taking the natural log, to avoid dropping zeros.
**Significant at 5 percent. ***Significant at 1 percent.

reports the probit coefficients utilized in this process. To calculate values of the instrument for observations that do not receive aid, this regression utilizes an adjusted measure of aid. The final outcome equation uses the natural log of aid divided by gross domestic product (GDP). The measure in Table 1 adds 1 to the aid measure before taking the log, which prevents zeros from dropping out of analysis. The instrument, *Z,* ranges from –31 to just over 2. These values correspond to a range of predicted probabilities of failure from nearly 0 to 0.66. Figure 1 illustrates the relationship between the instrument and the more intuitive concept of the predicted probability of failure.

To account for more traditional explanations of aid allocation, I include a number of control variables. As an indicator of humanitarian need, I include lagged population

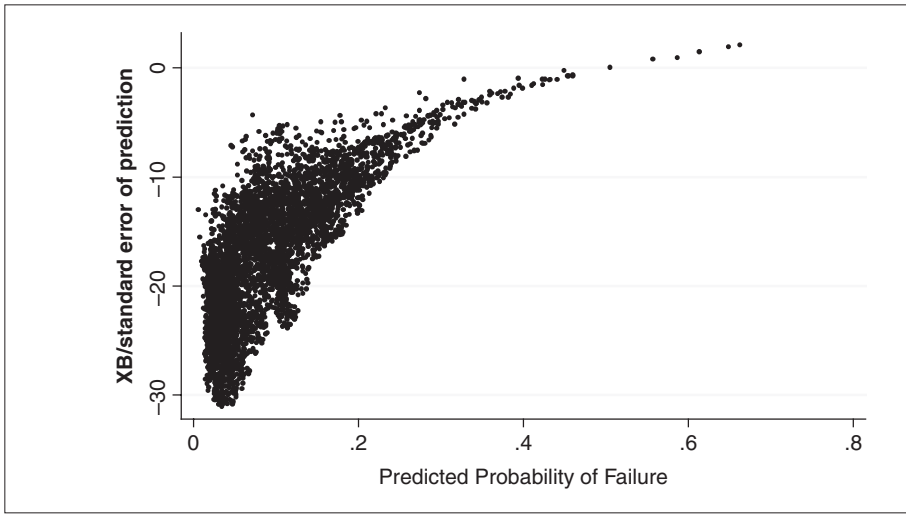

Figure 1. Relationship between instrument and probability of failure
Note: Statistics calculated using coefficient estimates reported in Table 1.

growth taken from the World Development Indicators. This variable is highly correlated with other measures of need, notably birthrate and infant mortality, but has substantially better coverage. Donors' commercial interests are captured by a logged measure of the value of imports from OECD donors received by the target in the prior year (Gleditsch 2002). Prior work on aid allocation in the selectorate theory school has found that donors tend to send aid to smaller coalition systems (Bueno de Mesquita and Smith 2007, 2009). I control for this using the ordinal measure of Bueno de Mesquita et al.'s (2005) winning coalition concept, *W*. Other indicators of strategic interest include an indicator of internationalized civil war from the Uppsala Conflict Data Project (Gleditsch et al. 2002), an indicator of former colonial status, an indicator for oil production capacity (Energy Information Administration 2009), and one for a defensive or offensive alliance tie to one of the OECD donors (Leeds et al. 2002). Finally, I also incorporate a measure of logged population (Gleditsch 2002).

Second-Stage Measurement

Most studies of leader survival utilize Goemans, Gleditsch, and Chiozza's (2009) indicator of leader failure as a dependent variable, excluding deaths from natural causes. For the theory at hand, this variable contains noise.[6] We are concerned here with the process of maintaining one's winning coalition. Thus, the exits of leaders leaving of their own volition or as proscribed by constitutional term limits do not indicate "failure." Accounting for this problem required investigation of the circumstances of exit for the leaders in my data set, which Archigos coded as "regular." These regular exits include term limits, impeachments, coalition dissolutions, elections, and resignations.

I code both the situation of exit and the relationship between the entering and the exiting leader. Using this additional information, I code an indicator for winning coalition failure. It obtains under two conditions: irregular replacement or replacement by an actor who is not an heir or successor.[7] The natural log of the Archigos variable *sumten,* which tracks the cumulative days of a leader's stay in office, is used both to deal with duration dependence and to explicitly allow the effect of aid to vary over time. The logarithmic functional form fits the expectations of institutionalization, as it will allow for diminishing effects over time as the changes slow.

The basic data on aid, available from 1960, come from the OECD's online database. The operationalization of aid begins with OECD's total net official development assistance variable, which includes bilateral aid disbursements from all OECD donor countries. Following several empirical analyses (Knack 2004; Daalgard et al. 2004; Lai 2003; Boone 1995), I adjust my aid measure in two ways. First, size of economy is accounted for by dividing aid per capita by GDP per capita in millions of constant U.S. dollars. Second, a logarithmic transformation corrects for heavy skew and diminishing returns. To capture any changing influence of aid over time, this variable is interacted with the log of time.

An indicator for big winning coalition/democratic institutions comes from Bueno de Mesquita et al.'s (2005) *W* measure. When *W* exceeds .75, *Wbig* equals 1. I utilize a dichotomous measure here rather than the ordinal scale because my theoretical expectations describe discrete forms of behavior rather than a range of behaviors. I posit that the institutions of democracy, associated with the biggest *W* values, create a *qualitatively different* process.

Control variables include economic variables from Gleditsch's (2002) expanded trade and economic data: lagged GDP growth and lagged total trade in current-year U.S. dollars. The natural log of population also comes from the Gleditsch data. Domestic challenges are captured by the Uppsala Conflict Data Program's measure of level of civil conflict, including the values 0, no conflict; 1, minor conflict producing at least 25 deaths; and 2, civil war producing at least 1,000 deaths. Regional dummy variables based on Hensel's (Hensel and Diehl 1994) coding have also been included.

Findings

I begin my analysis of the statistical results by assessing the appropriateness of the endogenous modeling techniques. Table 2 contains the coefficients and fit information from the censored probit of aid allocation and winning coalition failure with an endogenous instrument in the selection stage. The Wald statistic reported at the bottom of this table is highly significant, indicating a correlation between the processes. This indicates the appropriateness of the censored model. Second, the instrumented probability of failure used in the allocation model is highly significant, indicating the presence of a second endogenous process.

Aid allocation stage results are presented in the second column of Table 2.[8] The analysis suggests that strategic concerns weigh heavily on the decision to allocate aid.

Table 2. Censored Probit of Aid Allocation and Winning Coalition Failure

	Winning coalition failure	Aid allocation
Logged aid/GDP to small winning coalition systems	0.2348***	
	(0.0861)	
Ln(time) × logged aid/GDP to small winning coalition systems	–0.0264**	
	(0.0118)	
Logged aid/GDP to big winning coalition systems	–0.5355***	
	(0.1236)	
Ln(time) × logged aid/GDP to big winning coalition systems	0.0695***	
	(0.0179)	
Big winning coalition	0.3354***	
	(0.1065)	
Ln(time)	–0.1612***	
	(0.0338)	
Lagged economic growth	–0.7274***	
	(0.2615)	
Lagged log of total trade	0.0037	
	(0.0203)	
Intensity of civil conflict	0.2348***	
	(0.0861)	
Probability of leader's winning coalition failing (instrument)		0.0824***
		(0.0216)
Lagged aid receipt		5.0045***
		(0.4120)
Lagged population growth		0.0707***
		(0.0224)
Lagged imports from OECD donor states		0.1123
		(0.0880)
Natural log of population		–0.6978***
		(0.1642)
Lagged economic growth		–0.8590*
		(0.4769)
Winning coalition size		0.6229**
		(0.2490)
Former colony		0.6770***
		(0.2159)
Defensive or offensive alliance with an OECD donor state		0.0156
		(0.9622)
Potential for oil production		–0.8214**
		(0.3898)
Constant	–0.4423*	0.0307
	(0.2533)	(0.7479)
–2 pseudo–log likelihood	–1,410.392	
Wald χ^2	201.07***	
ρ	–.4778***	
	(.1410)	
Wald χ^2 test of independent equations	8.10***	

Note: Total N = 4,692 leader years of 791 separate leaders; 543 observations censored at selection stage. Robust standard errors in parentheses. Significant coefficients for regional dummies of South America, Sub-Saharan Africa, and South Asia not reported in winning coalition failure equation. GDP = gross domestic product; OECD = Organization for Economic Cooperation and Development.
*Significant at 10 percent. **Significant at 5 percent. ***Significant at 1 percent.

A state that did not receive aid in the previous period is significantly more likely to do so if its leader faces elevated risks of losing office. Increasing the risks of winning coalition failure steeply increases the probability of receiving aid, as illustrated in the left panel of Figure 1. This figure charts the probability of allocation from the minimum value of the instrument for probability failure to the minimum value within its 90th percentile. For ease of interpretation, I have transformed the instrument values to corresponding probabilities of failure by taking the normal probability of the product of the instrument and the standard error of prediction. Leaders facing a 40 percent risk of coalition failure will receive aid with a probability of 76 percent. Corresponding to the postulated logic, leaders with risks near zero have almost zero likelihood of receiving aid. Hypothesis 1 receives considerable support from these results; donors appear to favor leaders experiencing personal need of aid's potentially insulating effects. Of course, at this stage we can conclude neither that aid actually reduces recipients' risks of losing power nor that those leaders who are facing higher risks exhibit higher levels of compliance with donor requests. From the selection stage, we can merely observe findings consistent with a strategic allocation process.

Based on the positive coefficient for population growth, donors do appear more likely to send aid to needy countries. The magnitude of this effect, however, is smaller than that of the leader-level strategic variable. The predicted probabilities given values of need from the minimum to 90th percentile are displayed in the right panel of Figure 2. Across this range, the variable's impact changes by only 39 points. At the high value of population growth, probability of allocation is little better than a coin flip at 50.6 percent. Most other variables within the selection equation achieve significance in the expected direction. Both former colonial ties and strong alliances with donor states increase the likelihood of aid allocation. Imports may be a better measure of development than of donors' commercial interests; importing more from OECD states leads to lower probabilities of receiving aid. The model also confirms Bueno de Mesquita and Smith's (2007, 2009) contention that donors send aid more frequently to small winning coalition states.

Having evaluated Hypothesis 1 and found significant support, I move on to consider the remaining four hypotheses regarding the role of institutions and temporal dynamics. The winning coalition failure model in the first column of Table 2 contains the coefficients of interest for these hypothesis tests. As discussed above, the log of time models baseline duration dependence. Similar to many previous studies (cf. Chiozza and Goemans 2004; Bueno de Mesquita and Siverson 1995; Bienen and Van de Walle 1992), this coefficient indicates that the risks of losing office decrease over time as leaders become more cemented in power.

The aid terms feature two layers of multiplicative effect. First, the continuous aid variable has been interacted with a dummy for regime type. Then these two terms are further interacted with the natural log of time. Thus, aid interacted with *Wbig* describes the effect of aid when winning coalitions are big and the log of time equals zero; this will generally refer to democratic aid recipients on their first day in office. The aid constituent term references aid's effect on leaders with small winning coalition systems

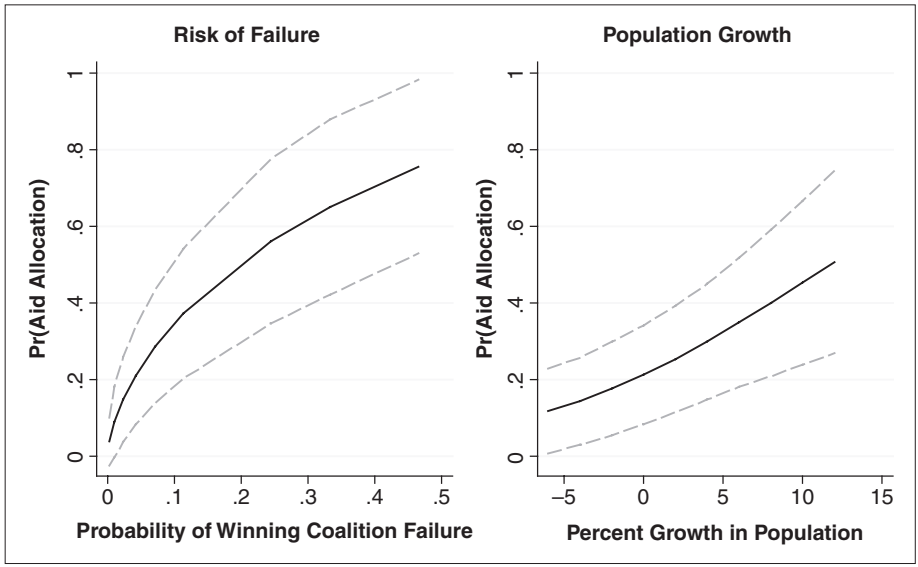

Figure 2. Probability of aid allocation
Note: Statistic is mean prediction from 100 simulations at each level of baseline risk using a draw of 100 beta coefficients from the variance–covariance matrix of the censored probit reported in Table 2 Dashed lines indicate 95 percent confidence interval.

on their first day in office. To make this more obvious, I have labeled the rows as to what type of leader each term references. With each unit increase in time, the slopes indicated by the aid and aid × *Wbig* terms shift by the magnitude of the coefficients of the interaction with time.

While these coefficients themselves do not provide much intuitive information, they can be of assistance in preliminary evaluation of Hypotheses 4 and 5. We may note, first of all, that all four coefficients achieve high levels of statistical significance. Aid exerts an observable impact on leaders on its first day of receipt, but the change in this impact over time is also distinguishable from zero. Consistent with expectations, aid decreases the risks of democratic leaders initially—indicated by the negative coefficient for aid to big winning coalition systems. The immediate impact for small winning coalition leaders is a significant increase in risk of coalition failure, marked by the positive sign of aid to small winning coalition systems.[9] And, over time, the positive coefficient on the log of time interaction marks a diminishing of aid's benefits for the big winning coalition systems. Meanwhile, the negative sign of aid to small coalition systems times the log of experience shows developing benefits for the small coalition systems.

From this initial evaluation of the coefficients, we glean information supportive of Hypothesis 4 and Hypothesis 5. It appears that autocratic leaders do experience an initial destabilization, with benefits developing over time. Following the opposite pattern,

democratic leaders benefit up front but experience a diminishing effect. Evaluating the significance of these trends at specific points in time, as well as the general impact of aid postulated by the static winning coalition argument (Hypothesis 2 and Hypothesis 3), requires more work. Given the complicated interaction effects, further investigation using measures of substantive significance is well advised (cf. Brambor, Clark, and Golder 2006; Kam and Franzese 2007). To provide an intuitive representation of aid's dynamic effects, I calculated the change in probability of failure over time for ideal types of big winning coalition and small winning coalition leaders. The probability of failure was calculated first with aid at one standard deviation above the mean and then at the mean level.[10] The difference of these two quantities provides an interesting indication of aid's substantive impact. Confidence in the accuracy of the calculation was increased using Monte Carlo techniques to draw a large sample of beta coefficients from the variance–covariance matrix of the censored probit model. The calculation, repeated 100 times, was made on a sample of 100 observations, identical except for the estimated coefficients. This procedure provides 10,000 observations of the percentage change in probability of failure for each type of leader. The reported statistic is the mean prediction from the sample, with 95 percent confidence intervals. A negative difference indicates that the probability of failure was lower at high levels of aid; a positive difference indicates that risks were lower at the mean level of aid.

Figure 3 charts these first differences across temporal ranges appropriate to the regime type. For democratic leaders, 99 percent of cases fail prior to the eighteenth year in power, so the *x*-axis ends at that point. This visual representation provides considerable additional evidence in favor of Hypothesis 4. For democratic leaders, whose winning coalition is most charitable early in the term, higher levels of foreign aid produce lower risks of losing office only in the early years. The insulation effect is substantial, with risks in the first days of office reduced by 60 percent. The decay in benefits proceeds steeply, however. Within two years and nine months, the confidence intervals include zero. Another six months brings a significant risk-increasing effect, which tops out at a 26 percent increase for the longest enduring democratic leaders. The dotted, gray, vertical line in the figure represents the fiftieth percentile in big winning coalition leader tenure. It matches almost perfectly to the point at which aid's effect becomes destabilizing.

Figure 3 also provides support for Hypothesis 5, demonstrating a significant destabilizing effect that diminishes over time. Receiving aid during the first days of tenure increases a nondemocratic leader's likelihood of coalition failure by 27 percent. This dangerous impact reverses but at a leisurely pace. Leaders must cling to power for 17½ years before the destabilizing effect loses significance. At this point, 83 percent of autocratic leaders would already have lost office. The insulating effect reaches 11.7 percent at its highest point, corresponding to the very rare occasion of 46 years in office.

While this analysis provides significant support for the dynamic Hypotheses 4 and 5, it contradicts the basic winning coalition arguments voiced in Hypotheses 2 and 3. Democratic leaders stand to benefit much more from aid than do their small winning

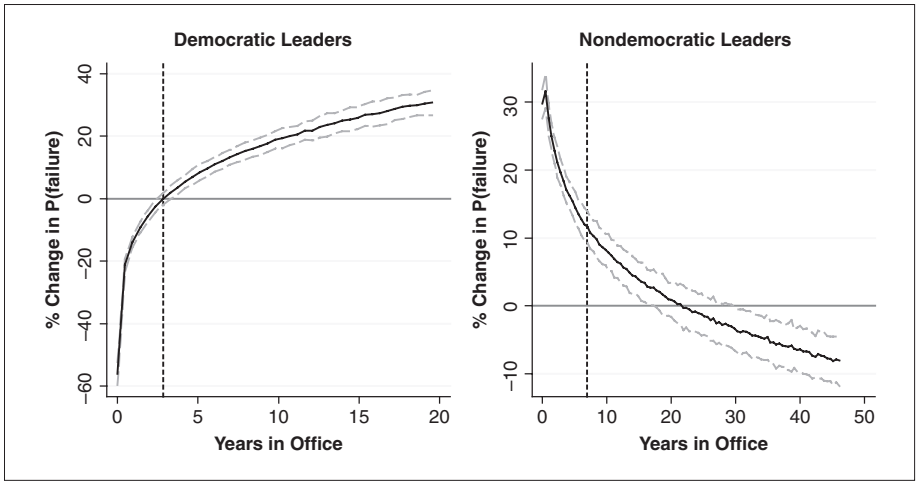

Figure 3. Change in probability of failure, given drop from one standard deviation above to the mean of aid

Note: Reported statistic is the mean of 10,000 draws from the variance–covariance matrix of the censored probit reported in Table 2. Dashed lines indicate 95 percent confidence interval. Democratic leaders defined by *W* scores greater or equal to .75; nondemocratic leaders by *W* scores below .75. Dashed vertical line is the 50 percent mark in the distribution of failure times for leader types. The *y*-axis scales are not equivalent across panels.

coalition counterparts, at least for a couple of years. The insulation effect in the first two years of a big winning coalition system outstrips that available to nondemocratic leaders both in magnitude (60 percent vs. 11.7 percent) and in the proportion of leaders likely to experience it (50 percent vs. 17 percent).

Temporal Dynamics versus the End of the Cold War

A growing number of theoretical and empirical works contend that patterns of aid allocation and aid effectiveness altered with the end of the Cold War and superpower politics (cf. Bermeo 2008; Bearce and Tirone 2008; Berthelemy 2006; Berthelemy and Tichit 2004; Burnside and Dollar 2004). Scholars in this emerging school of thought have found evidence that donors in the 1990s and onward exhibit greater likelihood of allocating to more democratic countries with better macroeconomic and human rights policies, breaking off aid to states that do not meet agreements, and behaving less "strategically" in the Cold War sense. If these arguments hold weight, then the pattern of endogenous processes could differ in the Cold War as opposed to the "New World Order" of the 1990s. Table 3 contains models run on the subsample of Cold War and New World Order years.

The strategic behavior of donor states does appear to have changed after the fall of the Soviet Union. In the 1990s model, the correlation between allocation and outcome

Table 3. Censored Probit of Winning Coalition Failure and Aid Allocation Subsample Analysis by Era

	Cold War		New World Order	
	Winning coalition failure	Aid allocation	Winning coalition failure	Aid allocation
Logged aid/GDP to small winning coalition systems	0.2644**		0.5280**	
	(0.1036)		(0.2198)	
Ln(time) × logged aid/GDP to small winning coalition systems	–0.0302**		–0.0668**	
	(0.0146)		(0.0297)	
Logged aid/GDP to big winning coalition systems	–0.4658***		–0.2820*	
	(0.1562)		(0.1676)	
Ln(time) × logged aid/GDP to big winning coalition systems	0.0570***		0.0400	
	(0.0217)		(0.0253)	
Big winning coalition	0.2055		–	
	(0.1370)			
Small winning coalition	–		–0.7277***	
			(0.2556)	
Ln(time)	–0.1471***		–0.1004	
	(0.0445)		(0.0612)	
Lagged economic growth	–0.8242**		–0.5869	
	(0.3682)		(0.3946)	
Lagged log of total trade	–0.0221		0.0183	
	(0.0251)		(0.0433)	
Intensity of civil conflict	0.1348**		0.1537*	
	(0.0672)		(0.0837)	
Probability of leader's winning coalition failing (instrument)		0.1040***		0.1247*
		(0.0331)		(0.0705)
Lagged aid receipt		4.9610***		7.3207***
		(0.5596)		(0.9605)
Lagged population growth		0.1425*		0.0089
		(0.0850)		(0.0700)
Lagged imports from OECD donor states		0.0156		0.8841***
		(0.0964)		(0.2359)
Natural log of population		–0.6563***		–1.4562***
		(0.2474)		(0.3183)
Lagged economic growth		–0.5965		0.1086
		(0.7337)		(0.7720)
Winning coalition size		0.4472		0.2990
		(0.3608)		(0.4583)
Former colony		0.7025***		0.3385
		(0.2671)		(0.4359)

(continued)

Table 3. (continued)

	Cold War		New World Order	
	Winning coalition failure	Aid allocation	Winning coalition failure	Aid allocation
Defensive or offensive alliance with an OECD donor state		4,118.6030 (0.0000)		–2.6885*** (0.9403)
Potential for oil production		–0.8972* (0.4728)		–1.2001** (0.5851)
Constant	–0.5132 (0.3221)	0.8927 (1.0042)	–0.3671 (0.4214)	–7.0459*** (2.1313)
–2 pseudo–log likelihood	–917.6867		–448.4125	
Wald χ^2	141.28***		76.04***	
ρ	–.4848** (.1771)		–.6930 (.6926)	
Wald χ^2 test of independent equations	5.23**		0.41	

NOTE: *Cold War* refers to 1960 to 1988; *New World Order* to 1989 to 2001. Cold War N = 3,176 leader years with 516 individual leaders and 332 observations censored at the allocation stage. New World Order N = 1,516 leader years with 382 individual leaders and 211 observations censored at allocation stage. Robust standard errors, in parentheses, are clustered on leaders. Significant coefficients for regional dummies of South America, Sub-Saharan Africa, and South Asia not reported in the coalition failure equations. Due to disproportionately small numbers of small winning coalition countries receiving aid in the New World Order, the reference category was switched in that model to ease estimation. Rather than logged aid being interacted with an indicator for big winning coalitions, it is interacted with an indicator for small winning coalition systems. GDP = gross domestic product; OECD = Organization for Economic Cooperation and Development.

*Significant at 10 percent. **Significant at 5 percent. ***Significant at 1 percent.

stage fails to achieve significance. While higher risk leaders are still more likely to receive aid, the effect is less significant than during the Cold War. This difference in statistical significance suggests that donors' behavior has become less consistent regarding the desirability of distressed targets. In future analyses, it may be profitable to disaggregate OECD bilateral aid by donor and investigate differences in strategy.

The general pattern of aid's dynamic effect across institutions holds across the eras. Autocrats are initially destabilized, with the harmful effect diminishing over time; democrats' initial insulation decays over time. After 1990, however, the initial insulating effect on democratic leaders is smaller in magnitude and much less significant ($\beta = -.2820$, $p = .092$, compared to $\beta = -.4658$, $p = .003$). The over-time drag on this effect fails to reach statistical significance ($p = .115$). Some portion of the inefficiency in the post–Cold War model may come from the considerably reduced sample size, with fewer than half the number of observations in this time period as opposed to the nearly 30 years of Cold War politics.

Conclusion

Too often in the field of international relations, we focus only on the conflictual behaviors of the great powers while ignoring their extensive repertoire of friendly foreign policy tools. The research presented here demonstrates the need to expand the scope of our analysis: pacific foreign policy decisions exert real effects on the politics of weaker countries. Institutions and political dynamics in targeted states, however, exert strong and interesting conditioning upon the outcomes of foreign policy strategies. My analyses have demonstrated a political impact in states targeted by foreign policy, but this impact varies given the institutions of representation and the experience of the receiving leader. Aid can significantly shore up the career of new democratic leaders, insulating them from the threat of winning coalition failure by up to 60 percent. But, if arriving late, aid can also cause problems for those responsible to a large coalition of supporters. Ironically, foreign assistance causes serious problems for the small winning coalition leaders who accept it. A destabilization of 30 percent may follow from receipt of a generous amount of aid.

The findings reported here contribute a new dimension to our understanding of foreign policy and of foreign aid in particular. Extant studies have considered a static picture of politics in target states. But the abilities and resources of politicians change over time in systematic ways about which we can theorize. More generally, the realm of friendly foreign policy effects deserves more scholarly attention, not least of all because it constitutes a significant public expenditure for many Western nations. Studies of alternative strategies, such as military assistance and diplomatic support, should be investigated to determine whether a similar pattern holds.

More immediately, however, this analysis raises intriguing questions about the policy outcomes of aid allocation. When leaders receive aid that helps them hold onto power, does this translate to higher compliance with donor requests? When it hurts, do targets become more recalcitrant? Why take money that spawns dangerous levels of instability and competition? And, while on the surface it seems positive that aid tends to make democratic leaders more secure, this need not be the case. The insulation of status quo administrations may also explain findings that donor goals of democratization (Knack 2004) and human rights improvements fail to be achieved (Regan 1995). Alternatively, the swift decay of the helpful effect into a political liability may be undergirded by increases in corruption and scandal as democrats utilize fungible aid monies to enrich themselves and their closest supporters. A parallel argument may be made for the seeming positive of aid's destabilizing effect on more autocratic leaders. The fall of such leaders does not necessarily imply the instatement of democracy. If these leaders are replaced by more of the same, aid may prove different from the traditional "resource curse" only in that it could have been prevented.

While research on this topic continues, allocation of development assistance is not likely to pause and await our final conclusions. In the meantime, policy makers motivated by humanitarian rather than strategic goals would be well advised to reconsider

the merit of political leaders who receive aid monies. To make good foreign policy, we must consider the institutional incentives of elites on the receiving end. For donors interested in the democratization and political progress of democratizing or autocratic regimes, aid may be an inappropriate policy tool. Rather, as indicated by previous studies (cf. Burnside and Dollar 2000, 2004), it may be necessary to hold off on the delivery of assistance until serious political reform has already taken place. The dynamics of political processes in the target states should also be considered. Democratic leaders beyond their first term in power may be better assisted with another type of friendly foreign policy tool rather than foreign aid.

Appendix I: Supplementary Materials

Table A1. Probit Regression of Aid Allocation

Probability of Leader's Winning Coalition Failing (Instrument)	0.0631***
	(0.0208)
Lagged Aid Receipt	4.5245***
	(0.3559)
Lagged Population Growth	0.0627***
	(0.0216)
Lagged Imports from OECD Donor States	–0.5806***
	(0.1413)
Natural log of Population	0.0702
	(0.0769)
Lagged Economic Growth	–0.4455
	(0.7901)
Winning Coalition Size	–0.7961*
	(0.4556)
Former Colony	0.4915**
	(0.2162)
Defensive or Offensive alliance with an OECD donor state	0.4602**
	(0.2020)
Potential for Oil Production	–0.6985**
	(0.3299)
Internationalized Civil Conflict	0.9786**
	(0.4846)
Constant	0.2036
	(0.6221)
Pseudo R^2	.8413
-2 Pseudologlikelihood	–267.945
Wald χ^2	339.30
Percent Correctly Classified	98.21%

NOTE: N=4,752 leader years from 1960-2001 including 791 individual leaders. Robust standard errors, in parentheses, are clustered on leaders.
* significant at 10%; ** significant at 5%; *** significant at 1%

Table A2. Censored Probit of Winning Coalition Failure and Aid Allocation using Polity Dummy for Regime Type

	Winning Coalition Failure	Aid Allocation
Logged Aid/GDP to Polity Democracy	0.2102***	
	(0.0760)	
Ln(time)*Logged Aid/GDP to Polity Democracy	–0.0274***	
	(0.0102)	
Logged Aid/GDP to Polity Democracy	–0.4224***	
	(0.1269)	
Ln(time)*Logged Aid/GDP to Polity Democracy	0.0565***	
	(0.0186)	
Polity Democracy	0.3022***	
	(0.0862)	
Ln(time)	–0.1139***	
	(0.0290)	
Lagged Economic Growth	–0.6964***	
	(0.2602)	
Lagged Log of Total Trade	–0.0036	
	(0.0165)	
Intensity of Civil Conflict	0.1051**	
	(0.0450)	
Probability of Leader's Winning Coalition Failing (Instrument)		0.0558***
		(0.0184)
Lagged Aid Receipt		4.9624***
		(0.3800)
Lagged Population Growth		0.0815***
		(0.0289)
Lagged Imports from OECD Donor States		0.1138
		(0.0828)
Natural log of Population		–0.6336***
		(0.1465)
Lagged Economic Growth		0.0006
		(0.0319)
Winning Coalition Size		0.5867**
		(0.2356)
Former Colony		0.7199***
		(0.2078)
Defensive or Offensive alliance with an OECD donor state		0.1229
		(0.9493)
Potential for Oil Production		–0.7294**
		(0.3692)
Constant	–0.4130*	–0.8929
	(0.2187)	(0.6435)
–2LogPseudolikelihood	–1829.491	
Wald χ^2	272.88***	
ρ	–.5186***	
	(.1188)	
Wald χ^2 test of independent equations	12.50***	

NOTE: N=4947 leader years from 1960-2001 including 820 individual leaders, with 585 censored at the allocation stage. Significant coefficients for regional dummies of South America, Sub-Saharan Africa and South Asia not reported in failure equation. Robust standard errors, in parentheses, clustered on leaders.
* significant at 10%; ** significant at 5%; *** significant at 1%

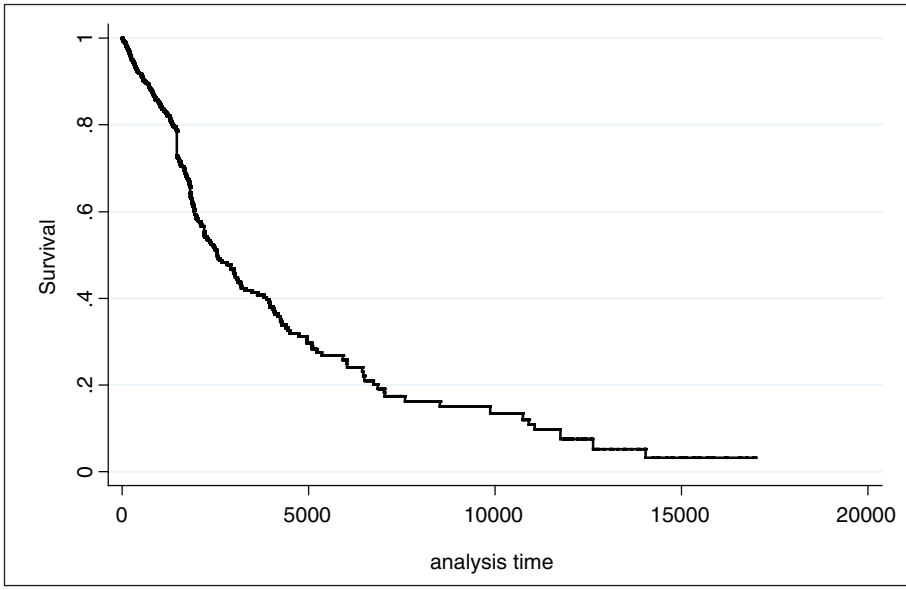

Figure A1. Estimated Baseline Survivor Function from NPH Cox Model of Winning Coalition Failure

Acknowledgements

For close assistance, guidance and support from the earliest stage of this project, I must thank Brian Lai. I am also grateful for additional valuable advice and critique from Sara Mitchell, Fred Boehmke, Mike Lewis-Beck, the Journeys in World Politics 2008 participants, and several anonymous reviewers. Any remaining shortcomings are my own.

Declaration of Conflict of Interest

The author(s) declared that they had no conflicts of interests with respect to their authorship or the publication of this article.

Financial Disclosure/Funding

The author(s) declared that they received no financial support for their research and/or authorship of this article.

Notes

1. To my knowledge, only one published study exists that directly investigates aid's impact on leader survival (Kono and Montinola 2009). That study applies a straightforward extension of Bueno de Mesquita et al.'s (2005) selectorate theory, without accounting for over-time processes as I do here.
2. For the sake of style, I vary my terminology about institutions. Throughout, I use the terms *democratic* and *large winning coalition systems* interchangeably. Similarly, I use the terms *nondemocratic, autocratic, small winning coalition,* and *authoritarian* to refer to the same concept.

3. This figure is reported in constant 2000 U.S. dollars adjusted for inflation.
4. Dubin and Rivers (1989) give the censored probit likelihood function as the following:

$$L(\beta_o, \beta_s, \rho) = \Sigma_{i=1}^{n} Y_{si} \{y_{oi} logG(-\beta_o' x_{oi}, -\beta_s' x_{si}) + (1 - Y_{oi}) \log \left((1 - H(-\beta_s' x_{si})\right) - \left(-\beta_o' x_{oi}, -\beta_s' x_{si}\right)\} + (1 - Y_{si}) \log(1 - (1 - H\left(-\beta_s' x_{si}\right)))$$

5. The baseline survival function estimated from the data using a Cox model with specification identical to the outcome equation estimated in a following section produces the function pictured in Figure A1 in the appendix of supplementary materials (http://jcr.sagepub.com/supplemental). The reader should note that it is a relatively smooth function, with a steep initial decline that diminishes. The logarithmic function is very similar. For those still concerned that the function is too simple to capture duration dependence, the results have also been estimated using a cubic polynomial. These regression results are available upon request. All key relationships are robust to this alteration in specification.
6. An astute reviewer brought this problem to my attention.
7. Entering leaders can relate to the exiting leader in three ways. *Heirs* or *successors* come from the same party, administration, or family of the exiting leader. *Challengers* come from opposing parties, rival factions within the dominant party, or the military. The *neutral parties* coding is used when party affiliation cannot be determined or when an interim ruling coalition is put in place. Unless an heir or successor takes over following term limits or resignation, I code winning coalition failure as 1.
8. See supplementary materials for independent probit regression and fit statistics at the allocation stage.
9. This is actually the constituent term for aid. To assist readers in interpretation, I have labeled variables by the population to which they refer.
10. Timpone (2002) gives the formula for predicted probabilities from the censored probit model as

$$\Pr(Y_{si} = 0) = 1 - \Phi\left(\beta_s' X_{si}\right)$$
$$\Pr(Y_{oi} = 0 \mid Y_{si} = 1) = \Phi\left(-\beta_s' X_{si}, \beta_o' X_{oi}, -\rho\right)$$
$$\Pr(Y_{oi} = 1 \mid Y_{si} = 1) = \Phi\left(-\beta_s' X_{si}, \beta_o' X_{oi}, \rho\right)$$

Where the subscript *s* indicates the selection equation and *o* indicates the outcome equation; ρ is the correlation between the errors of the two equations.

References

Altman, David. 2000. The politics of coalition formation and survival in multiparty presidential democracies. *Party Politics* 63:259-83.

Baldwin, David A. 1971. The power of positive sanctions. *World Politics* 241:19-38.

Baldwin, David A. 1985. *Economic statecraft.* Princeton, NJ: Princeton University Press.

Geddes, Barbara. (1994) *Politician's Dilemma: Building State Capacity in Latin America*. Berkeley: University of California Press.

Beck, Nathaniel, Jonathan N. Katz, and Richard Tucker. 1998. Taking time seriously: Time-series–cross-section analysis with a binary dependent variable. *American Journal of Political Science* 42:1260-88.

Bearce, David H., and Daniel C. Tirone. 2008. Foreign aid, recipient growth, and the strategic goals of donor governments. Unpublished manuscript.

Bermeo, Sarah Blodgett. 2008. Foreign aid, foreign policy and strategic development. PhD diss., Princeton University.

Berthelemy, Jean-Claude. 2006. Bilateral donors' interest vs. recipients' development motives in aid allocation: Do all donors behave the same? *Review of Development Economics* 10:179-94.

Berthelemy, Jean-Claude, and Ariane Tichit. 2004. Bilateral donors aid allocation decisions—A three dimensional panel analysis. *International Review of Economics and Finance* 13:253-74.

Bienen, Henry, and Nicolas van de Walle. 1992. A proportional hazard model of leadership duration. *Journal of Politics* 54:685-717.

Boone, Peter. 1995. *Politics and the effectiveness of foreign aid.* London: Center for Economic Performance.

Box-Steffensmeier, Janet, and Bradford S. Jones. 2004. *Event-history modeling: A guide for social scientists.* Cambridge, UK: Cambridge University Press.

Brace, Paul, and Barbara Hinckley. 1992. *Follow the leader: Opinion polls and the modern presidents.* New York: Basic Books.

Brambor, Thomas, William Roberts Clark, and Matt Golder. 2006. Understanding interaction effects: Improving empirical analyses. *Political Analysis* 14:63-82.

Brautigam, Deborah, and Stephen J. Knack. 2004. Foreign aid, institutions and governance in Sub-Saharan Africa. *Economic Development and Cultural Change* 52:255-85.

Brody, Richard A. 1991. *Assessing the president: The media, elite opinion and public support.* Stanford, CA: Stanford University Press.

Bueno de Mesquita, Bruce, and Randolph M. Siverson. 1995. War and the survival of political leaders: A comparative study of regime types and political accountability. *American Political Science Review* 89:841-55.

Bueno de Mesquita, Bruce, and Alastair Smith. 2007. Foreign aid and policy concessions. *Journal of Conflict Resolution* 51:251-84.

Bueno de Mesquita, Bruce, and Alastair Smith. 2009. A political economy of aid. *International Organization* 63:309-40.

Bueno de Mesquita, Bruce, Alastair Smith, Randolph M. Siverson, and James D. Morrow. 2005. *The logic of political survival.* Cambridge, MA: MIT Press.

Burnside, Craig, and David Dollar. 2000. Aid, policies, and growth. *American Economic Review* 90:847-68.

Burnside, Craig, and David Dollar. 2004. Aid, policies, and growth: Revisiting the evidence. Policy Research Working Paper 3251, World Bank.

Chenery, Hollis B., and Alan M. Strout. (1966) Foreign Assistance and Economic Development. *The American Economic Review,* Vol. 56, No. 4, Part 1: 679-733.

Chiozza, Giacomo, and Ajin Choi. 2003. Guess who did what. *Journal of Conflict Resolution* 47:251-78.

Chiozza, Giacomo, and H. E. Goemans. 2003. Peace through insecurity: Tenure and international conflict. *Journal of Conflict Resolution* 47:443-67.

Chiozza, Giacomo, and H. E. Goemans. 2004. International conflict and the tenure of leaders: Is war still *ex post* inefficient? *American Journal of Political Science* 48:604-19.

Collier, Paul, and David Dollar. 2002. Aid allocation and poverty reduction. *European Economic Review* 46:1475-500.

Dalgaard, Carl-Johan, Henrik Hansen and Finn Tarp. (2004) On the Empirics of Foreign Aid and Growth. *The Economic Journal*, 114(June): 191-216.

Devarajan, Shantayanan, David R. Dollar, and Torgny Holmgren. 2001. *Aid and reform in Africa.* Washington, DC: World Bank.

Dubin, Jeffrey A., and Douglas Rivers. 1989. Selection bias in linear regression, logit and probit models. *Sociological Methods and Research* 18:360-90.

Dudley, Leonard, and Claude Montmarquette. 1976. A model of the supply of bilateral foreign aid. *American Economic Review* 66:132-42.

Energy Information Administration. 2009. International energy statistics. http://www.eia.doe.gov/ (accessed April 2009).

Feyzioglu, T., V. Swaroop, and M. Zhu. 1998. A panel data analysis of the fungibility of foreign aid. *World Bank Economic Review* 12:29-58.

Gates, Scott, Havard Hegre, Mark P. Jones, and Havard Strand. 2006. Institutional inconsistency and political instability: Polity duration, 1800-2000. *American Journal of Political Science* 50:893-908.

Gelpi, Christopher, and Joseph M. Grieco. 2001. Attracting trouble: Democracy, leadership tenure and the targeting of militarized challenges, 1918-1992. *Journal of Conflict Resolution* 45:794-817.

Gleditsch, Kristian. 2002. Expanded trade and GDP data. *Journal of Conflict Resolution* 46:712-24.

Gleditsch, Nils Petter, Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg, and Håvard Strand. 2002. Armed conflict 1946-2001: A new dataset. *Journal of Peace Research,* 39:615-37.

Goemans, Hein Kristian Skrede Gledistch, and Giacomo Chiozza. (2009) Introducing Archigos: A Data Set of Political Leaders. *Journal of Peace Research,* 46(2), (March): 269-183.

Heckman, James J. 1979. Sample selection bias as a specification error. *Econometrica* 47:153-61.

Hensel, Paul R., and Paul F. Diehl 1994. Testing empirical propositions about shatterbelts. *Political Geography* 13 (January): 33-51.

Kam, Cindy D., and Robert J. Franzese Jr. 2007. *Modeling and interpreting interactive hypotheses in regression analysis.* Ann Arbor: University of Michigan Press.

Knack, Stephen. 2004. Does foreign aid promote democracy? *International Studies Quarterly* 48:251-66.

Kono, Daniel Yuichi, and Gabriella R. Montinola. 2009. Does foreign aid support autocrats, democrats, or both? *Journal of Politics* 71:704-18.

Kosack, Stephen and Jennifer Tobin. 2006. Funding self-sustaining development: The role of aid, FDI and government in economic success. *International Organization* 60:205-43.

Lai, Brian. 2003. Examining the goals of US foreign assistance in the post–Cold War period: 1991-96. *Journal of Peace Research* 40:103-28.

Lai, Brian, and Daniel Morey. 2006. Impact of regime type on the influence of U.S. foreign aid. *Foreign Policy Analysis* 2:385-404.

Lai, Brian, and Dan Reiter. 2005. Rally 'round the Union Jack? Public opinion and the use of force in the United Kingdom, 1948-2001. *International Studies Quarterly* 49:255-72.

Leeds, Brett Ashley, Jeffrey M. Ritter, Sara McLaughlin Mitchell, and Andrew G. Long. 2002. Alliance treaty obligations and provisions, 1815-1944. *International Interactions* 28:237-60.

Light, Paul C. 1999. *The president's agenda: Domestic policy choice from Kennedy to Clinton*. 3rd ed. Baltimore: Johns Hopkins University Press.

Linz, Juan J., and Alfred Stepan. 1996. *Problems of democratic transition and consolidation.* Baltimore: John Hopkins University Press.

Lockerbie, Brad, Stephen Borelli, and Scott Hedger. 1998. An integrative approach to modeling presidential success in Congress. *Political Research Quarterly* 51:155-72.

Londregan, John B., and Keith T. Poole 1990. Poverty, the coup trap, and the seizure of executive power. *World Politics* 42:151-83.

Marinov, Nikolay. 2005. Do economic sanctions destabilize country leaders? *American Journal of Political Science* 49:564-76.

Marshall, Monty G., and Keith Jaggers. 2003. *Polity IV project: Political regime characteristics and transitions, 1800-2002*. College Park: University of Maryland.

McGillivray, Fiona, and Alastair Smith. 2006. Credibility in compliance and punishment: Leader-specific punishments and credibility. *Journal of Politics* 68:248-58.

McKinlay, R. D., and R. Little. 1977. A foreign policy model of U.S. bilateral aid allocation. *World Politics* 30:58-86.

Mitchell, Sara McLaughlin, and Brandon Prins. 2004. Rivalry and diversionary uses of force. *Journal of Conflict Resolution,* 48:937-61.

Mueller, John. 1971. Trends in popular support for the wars in Korea and Vietnam. *American Political Science Review.* 65:358-75.

Pack, Howard, and Janet Rothenberg Pack. 1993. Foreign aid and the question of fungibility. *Review of Economics and Statistics,* 75:258-65.

Regan, Patrick M. 1995. U.S. economic aid and political repression: An empirical evaluation of U.S. foreign policy. *Political Research Quarterly,* 48:613-28.

Svensson, Jakob. 2000. Foreign aid and rent-seeking. *Journal of International Economics* 51:437-61.

Timpone, Richard J. 2002. Estimating aggregate policy reform effects: New baselines for registration, participation and representation. *Political Analysis* 10:154-77.

Warwick, Paul V. (1992) Rising Hazards: An Underlying Dynamic of Parliamentary Government. *American Journal of Political Science,* 36(4):857-76

Wolford, Scott. 2007. The turnover trap: New leaders, reputation and international conflict. *American Journal of Political Science* 51:772-88.

Wright, Joseph. 2008. To invest or insure? How authoritarian time horizons impact foreign aid effectiveness. *Comparative Political Studies* 41:971-1000.

Wrong, Michela. 2007. Mystery of Mobutu's millions. *New Statesman,* July 30, 22.

Yambayamba, Kavwanga E. S. 2007. *National Integrity Systems country report: Zambia*. Berlin: Transparency International.