

## Avoiding Diversionary Targets\*

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This article identifies three common flaws in the empirical literature on the diversionary use of force. First, while theoretical models of the diversionary use of force are built on the motivations of leaders to stay in power, the great majority of empirical studies employ datasets with the country or country-year as their unit of analysis. Second, while theories of the diversionary use of force strongly suggest a reciprocal relationship between the probabilities of losing office and international conflict, almost no studies have explicitly modeled such a reciprocal relationship. Third, most empirical studies ignore how the diversionary incentives of leaders might affect the strategic calculus of their potential foreign opponents. This article explicitly addresses these common flaws by using a dataset with the leader-year as the unit of analysis and by employing a two-stage probit model to examine a reciprocal relationship between the probabilities of losing office and becoming a target, thus focusing on targets. The authors find only qualified support for the modified strategic theory of diversionary conflict. On the one hand, as the risk of losing office increases, leaders become less likely to be targets in an international crisis. On the other hand, however, the risk of becoming a target in an international crisis does not affect the probability of losing office.

### Introduction

The rational unitary actor assumption has often proved fruitful in international relations, in particular when it made it possible to specify three rationalist explanations and causal mechanisms for war (Fearon, 1995). More recently, however, a trend has emerged that breaks down the

assumption that the state is a rational unitary actor. This new emerging scholarship focuses, instead, on leaders in their institutional context (see, in particular, Bueno de Mesquita et al., 2003). The leader literature can also boast of clearly specified causal mechanisms to explain international conflict, in particular in the literature on diversionary conflict. Empirical support for these proposed causal mechanisms, however, has been decidedly mixed. One explanation for these mixed results, we argue here, is that the empirical literature on diversionary conflict suffers from three widespread fundamental flaws.

First, the literature has failed to consider that diversionary conflict can be rational

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only if conflict in turn affects tenure. Thus, there should exist a reciprocal relationship between tenure and international conflict. In the empirical literature, however, very few articles actually estimate such a reciprocal relationship (DeRouen, 1995, 2000). Second, in most of the literature on diversionary conflict, the theoretical and empirical units of analysis do not match. Most empirical studies of diversionary war employ data with the country-year as the unit of analysis, instead of the leader or leader-year. Third, again with few exceptions, most empirical studies ignore the potential effects of strategic interaction. Discussing endogenous crisis formation, Smith (1996) and more recently Clark (2003) and Tarar (2003) have argued, however, that strategic interaction may play a fundamental role in determining whether and which leaders get to act on their diversionary incentives. In this article, we address these flaws by examining which leaders become targets in international crises, employing a two-stage probit model to examine the reciprocal relationship between the probabilities of losing office and of becoming a target, and using a dataset with the leader-year as the unit of analysis.

We proceed as follows. In the first section, we review the existing literature on the diversionary use of force. In the second section, we present our main hypotheses. In the third section, we describe our research design. We then move on to present the data and the measurement of the variables. Finally, we present the results of our analyses. We find that as the risk of losing office increases, leaders become less likely to be targets in an international crisis. The risk of becoming a target in an international crisis, however, has no discernible effect on the probability of losing office, which indicates the absence of any 'rally-around-the-flag' effect. Chiozza & Goemans (2003) found earlier that as the risk of losing office increases, leaders become less likely to initiate an international crisis

and that as the risk of conflict initiation increases, leaders become more likely to lose office. Together, these findings should throw serious doubt on the standard diversionary use of force hypothesis. Not only is international conflict more likely when leaders are secure in office, but we also found no support for a 'rally-around-the-flag' effect that would make the diversionary use of force rational in the first place. Our results suggest that security, rather than insecurity, in office is a fundamental – but poorly understood – mechanism for international conflict.

### **Diversionary Conflict: Mechanisms and Flaws**

At the heart of the literature on diversionary conflict is the hypothesis that leaders become more likely to initiate conflict as their probability of losing office increases (Levy, 1989). This proposition has generated a very large body of research that spans formal models, large-N statistical analyses, and detailed historical case studies. Nonetheless, it is fair to say that no consensus has emerged from this broad and extensive literature. Scholars have examined how regime type, economic conditions, the international security context, and many other factors relate to diversionary conflict, but any empirical relationship remains fundamentally contested (Wilkenfeld, 1968; Zinnes & Wilkenfeld, 1971; Levy, 1989; Mansfield & Snyder, 1995; Gelpi, 1997; Leeds & Davis, 1997; Miller, 1999). Below, we briefly discuss the main causal mechanisms and how (a combination of) three common flaws might be to blame for the contradictory findings.

Despite their different theoretical underpinnings, the main causal mechanisms invoked to account for diversionary war – the *scapegoat hypothesis*, the *in-group/out-group hypothesis*, and *gambling for resurrection* – are all cast in terms of the behavior and

incentives of leaders. Under the scapegoat hypothesis, leaders take advantage of war to shift the blame for their failed policies onto the foreign enemy. The in-group/out-group hypothesis proposes that when a state becomes involved in an international crisis, in-group – in particular national – identities become salient (Simmel, 1898; Coser, 1956; Mercer, 1995). This, in turn, produces in-group bias and greater cohesion among in-group members which has become known as ‘rallying-around-the-flag’ (Mueller, 1973; Levy, 1989). Thus, as people perceive a foreign threat, they become more likely to support their leader; with political opposition muted, leaders can strengthen their hold on office, which becomes the reason why a leader might provoke a foreign crisis in the first place.

The third mechanism underlying the diversionary war thesis, gambling for resurrection, has been developed primarily in the rational choice literature (Richards et al., 1993; Downs & Rocke, 1994; Smith, 1996; Bueno de Mesquita et al., 1999). In a nutshell, the argument is that leaders who expect to lose power soon can rationally prefer the risky lottery of war because their punishment in terms of time in office is truncated: they cannot lose more days in office as a result of war than they expect to have when they stay at peace. Thus, if staying at peace is very likely to lead to removal from office, even a small probability of victory – with its associated boost in tenure – is enough to make war preferable over peace for leaders.<sup>1</sup> It deserves emphasis that all three mechanisms posit a reciprocal relationship between the risk of losing office and international conflict; leaders become involved in international conflict *because* such conflict pays.

Almost all of the traditional literature on the diversionary use of force has focused only

<sup>1</sup> Gambling for resurrection is a general mechanism for war and posits a straightforward linear relationship between the risk of losing office and international conflict.

on the strategic interaction between leaders and citizens relevant to the leader’s tenure; scholars almost always fail to consider how this domestic interaction affects international interactions.<sup>2</sup> However, as Bueno de Mesquita & Siverson (1995) have argued, leaders select their international conflict strategically and should therefore take into account the relevant domestic circumstances of potential opponents. We argue that because they gain a private benefit from conflict – the increased likelihood of staying in power – diversionary leaders can credibly demand a premium in interstate bargaining. *Ceteris paribus*, other leaders would thus gain less from conflict with diversionary leaders while war would be more likely (because the bargaining range shrinks). Leaders thus have *dis*-incentives to target other leaders who have diversionary incentives. This argument offers an explanation for the empirical elusiveness of the diversionary use of force: diversionary conflict might not appear in the empirical record given the ability of potential foreign opponents to read and play against a leader’s diversionary incentives.

In their study of the conflict behavior and role of 18 democracies between 1952 and 1988, Leeds & Davis (1997) make and empirically support a similar argument. They argue that,

when selecting their courses of action in the international system, state leaders take into account not only their own domestic political conditions but also those faced by rival leaders. Thus, at times when domestic imperatives might make an aggressive response by the targeted state more probable, state leaders more often refrain from initiating a dispute.

<sup>2</sup> In his discussion of endogenous crisis formation, Smith (1996) was the first to examine how the domestic political diversionary incentives of leaders affect the potential conflict incentives of other leaders. He proposes a curvilinear relationship between the risk of losing office and the probability of becoming a target (Smith, 1996: 149). Our two-stage probit estimator, and simultaneous equation estimators in general, however, do not allow for the inclusion of a quadratic endogenous term (see Davidson & MacKinnon, 1993: 661–662).

Domestic political vulnerability appears to enhance deterrence. (Leeds & Davis, 1997: 815, also 814; see also Gaubatz, 1991)

Supporting this line of argument, Miller (1995: 775) finds that when targeted, highly autocratic systems with low policy resources are more likely to respond with force if their economy is doing poorly. Thus, politically vulnerable leaders are indeed found to be more likely to exploit being targeted in a crisis for political gain. Both these studies, however, employ the country as the unit of analysis and fail to consider the reciprocal relationship between tenure and conflict.

### Hypotheses on Tenure and Targets

Based on such international strategic incentives, we expect that leaders that have the strongest diversionary incentives – because they face a high probability of losing office – will get the fewest opportunities to exploit those incentives because their international adversaries anticipate the incentive to launch diversionary conflict.

*H1:* Diversionary selection hypothesis: The higher their probability of losing office, the less likely leaders are to be targeted in international crises.

We argued above that the reciprocal relation between tenure and the use of force is a central element of mechanisms of diversionary war. Leaders can credibly demand a premium in their interstate bargaining only if (the risk of) being a target bolsters their domestic political position, for instance by triggering a domestic ‘rally-around-the-flag’ effect. In other words, leaders will strategically avoid diversionary targets because becoming a target provides some benefit. Without such benefits to the targeted leader, the targeted leader would have no incentives to exploit the opportunity for international conflict. We hypothesize that leaders benefit from the threat of becoming

a target in an international crisis because of the ‘rally-around-the-flag’ mechanism discussed above. Note that for this mechanism it is not necessary that an international conflict has already broken out; a threat of becoming a target in an international conflict should be enough to produce the in-group bias that leads to ‘rallying-around-the-flag.’

*H2:* Rally-around-the-flag hypothesis: As the probability of becoming a target in an international conflict increases, the probability of losing office decreases.

Recently, Gelpi & Grieco (2001) have offered a novel argument about the link between the tenure of leaders and the risk of being a target in international disputes. They argue that leaders who choose to challenge will prefer to target inexperienced leaders because these are the weakest players in international confrontations. Since democracies have a higher turnover rate of leaders, they argue, democratic leaders should be more tempting targets for international conflict. From an operational point of view, they measure leaders’ political experience in terms of the time they have spent in office: the longer the office tenure, the greater the political experience. Supporting their hypotheses, Gelpi & Grieco (2001: 795) find that ‘the length of time a leader was in office is negatively related to the probability that his or her country was the target of a militarized crisis’. Moreover, the inclusion of the tenure variable rendered the democracy variable insignificant, which is taken as evidence that leaders’ tenure is the causal mechanism explaining democracies’ higher propensity of being targeted in international crises.

We test Gelpi & Grieco’s (2001) argument using three indicators of political experience: the first is the time in office indicator they use; the second measures whether the leader stayed in power longer than the

median duration in office for leaders of that country, which we take as an arbitrary threshold distinguishing politically seasoned leaders from leaders of less experience; and the third is a counter-variable that measures the number of times a leader has served in office.

*H3*: Political experience hypothesis: The greater a leader's political experience, the less likely the leader will be targeted in an international crisis.

### Research Design

Our research design has two innovative features. First, we use a dataset with political leaders as its unit of analysis; second, we model the existence of a reciprocal relationship between the risk of losing office and the chances of becoming a target in an international crisis through a system of equations. We address each innovation in turn.

Our central contention is that tenure motivations underlie leaders' choices in the security arena. This is not to deny that country-level characteristics help account for the conflict behavior of states. But insofar as the locus of political decisionmaking is placed in the calculus of politicians who pursue their states' national interest while keeping a close eye on their political careers, our empirical models should reflect this theoretical assumption. Thus, to model leaders' decisions empirically, we abandon the conventional country-year format and adopt a specification in which the ruler holding office in a given year is the unit of analysis.

Our second innovative feature is the statistical estimator. As we have argued, we expect leaders' chances of remaining in power to affect their risk of being targeted in an international crisis, while at the same time we expect the risk of being targeted to affect the leaders' chances of remaining in office. To model the reciprocal relation between losing office and becoming a target, we rely

on a simultaneous equation system with two endogenous dichotomous variables, a class of models called two-stage probit. This procedure, which can be seen as an extension of a two-stage least squares model to dichotomous variables, yields consistent estimates (see Mallar, 1977; Maddala, 1983: 246–247; Greene, 2002: E17–28–E17–32).

Estimation proceeds in two steps: first, we estimate the reduced-form equations, that is, two probit models predicting the probability of losing office and the probability of being targeted in a crisis, with all the exogenous variables included in the system of equations on the right-hand side. Then, from the probit reduced-form coefficients, we retrieve an estimate of the underlying propensities of losing office and of being a target in a crisis; that is, for both dependent variables we compute the respective linear predictor and then substitute these values for the endogenous regressors in the second-stage, structural, probit equations. The inclusion of the two imputed regressors in the second-stage structural equations leads to an underestimation of the standard errors. We correct for this bias using the asymptotically correct covariance matrix derived by Maddala (1983: 246–247). We also cluster observations by leader, thus computing robust standard errors.

As is the case with system-of-equation models, our estimation procedure produces two basic sets of results: those of the structural equations and those of the reduced-form equations. The structural coefficients assess the direct effect of the explanatory variables, while controlling for the impact of the endogenous dependent variable. Moreover, the structural equations show the direction and the strength of the reciprocal relationship between the risk of losing office and the risk of being challenged in a crisis. The reduced-form estimates, on the other hand, yield a measure of the *overall* effects of the exogenous variables. This overall effect

summarizes two pathways: the first is the direct pathway depicted in the structural equations, while the second is an indirect pathway that is channeled through the causal feedback loop between the two endogenous dependent variables. From a substantive point of view, both sets of results are important because they shed empirical light on different aspects of the dynamics modeled, and their comparison makes it possible to examine whether and how endogeneity may have affected earlier empirical examinations of targets in international crises.

The estimation of a simultaneous equation model requires that the endogenous predictors adequately capture the underlying risks of losing office and being targeted in a crisis. To this end, we include in the specification of our models several explanatory variables that have been shown to be valid predictors of conflict and office tenure in previous research. For the equation measuring target events, we include regime type, civil war, economic performance, trade patterns, population size, national capabilities, major power status, military mobilization, the number of borders, the number of days since the last time the country was targeted in a crisis, and participation in an ongoing conflict (Geller & Singer, 1998; Midlarsky, 1974; Diehl, 1985; Russett & Oneal, 2001; Beck, Katz & Tucker, 1998). For the equation measuring loss of office, we cull our variables from the limited literature on the tenure of leaders (Chiozza & Goemans, 2004; Bienen & van de Walle, 1991), thus including the leader's personal characteristics, salient domestic economic and political features of the country, political experience, and the outcomes of international conflict.<sup>3</sup>

At the same time, we need to ensure that

the system is properly identified. From a substantive viewpoint, there should be at least one exogenous variable that predicts the probability of becoming a target in a crisis that is not a predictor in the structural equation on the probability of losing office, and vice versa (Mallar, 1977: 1719; Gujarati, 1995: 664–665).

As indicated in Table I, we exclude the leader's age, the median duration in office of leaders of a given country, and the outcomes of conflict from the structural equation that predicts becoming a target. We know of no theory that argues a leader's age directly affects the probability of becoming a target, while the median duration in power would merely be an intervening variable between regime type and conflict events and should therefore not be included as a control.<sup>4</sup> We also exclude the outcome of conflict for three basic reasons. First, many conflicts in our sample end the same year they started. Since the outcome of these conflicts is temporally subsequent to their initiation, they are by definition eliminated as a possible cause. Second, it might be argued that the outcome of one conflict affects the probability of subsequent targeting. However, this line of reasoning is incompatible with the rationalist bargaining perspective. Rather, private information and incentives to misrepresent this private information are a fundamental cause of war and one conflict can affect subsequent conflict by the revelation of private information (Fearon, 1995; Gartzke, 1999). Thus, from a bargaining perspective, it is not the outcome of a war, but the revelation or accumulation of private information that affects the probability of subsequent conflict. On the one hand, private information is revealed during conflict (Goemans, 2000); on the other hand, peace allows for the accumulation of (new) private information.

<sup>3</sup> This modeling choice, thus, is not exclusively aimed at controlling for confounding factors, as recommended by Ray (2003), but is also aimed at reaching an adequate model-fit.

<sup>4</sup> For an explanation of why intervening variables should not be controlled for, see King (1991) and Ray (2003).

Table I. Model Specification

<i>Exogenous variables</i>	<i>Equation 1 Target</i>	<i>Equation 2 Loss of office</i>
<i>Leader's features</i>		
Age	✗	✓
Number of days in office	✓	✓
More than five years in office	✓	✓
Number of previous times in office	✓	✓
<i>Country's domestic economic and political features</i>		
Regime type	✓	✓
Civil war	✓	✓
Economic development	✓	✓
Change in economic development	✓	✓
Trade openness	✓	✓
Change in trade openness	✓	✓
Total population	✓	✓
National capabilities	✓	✓
Median duration in office	✗	✓
<i>Country's international political environment</i>		
Major power status	✓	✗
Military mobilization	✓	✗
Number of borders	✓	✗
Days since last crisis as a target	✓	✗
Involvement in an ongoing crisis	✓	✓
Outcomes of conflict	✗	✓

The symbol ✓ indicates that a variable is included in an equation; the symbol ✗ indicates exclusion of a variable from an equation.

To capture the revelation and accumulation of private information, we include two variables in our structural equation predicting conflict targets: participation in an ongoing conflict – an indicator for the revelation of private information – and the number of days since the last target experience – an indicator for the accumulation of private information. Commitment problems arising from the settlement of a previous war cannot be invoked to explain a new war since the anticipation of such commitment problems should rationally preclude settlement in the first place. Third, it might be argued that a defeat in one conflict makes a leader more likely to lose office and increases that leader's diversionary incentives. However, this effect should then be captured by the endogenous variable Risk of Losing Office in the

structural equation, and not by the outcome of a conflict.<sup>5</sup>

Finally, we exclude major power status, military mobilization, the number of borders, and the number of days since the country was last targeted in a crisis from the structural equation on the loss of office. We do not know of any theory that links these variables directly with the probability of losing office.

<sup>5</sup> Although we have good theoretical reasons to exclude the outcome of international conflict from the structural equation that predicts the probability of being a target, we must include the outcome of conflict in our reduced-form equations, since the theories of diversionary war posit that the outcome of war can have an important effect on a leader's probability of losing power. Inevitably, the outcome of conflict will be positively associated with being a target in the reduced-form equation, because many international crises end in the same year they started (and therefore occur in the same observation).

## Data and Measurement

Our dataset comprises 2,049 leaders from 166 countries in the period from 1919 through 1999. Each leader's spell in office is split into yearly observations: this division is chosen because most of our explanatory variables are measured annually. This way, each leader has one record for each calendar year in power. The total number of observations is 10,037. Missing values on some of the explanatory variables limit the number of observations under investigation to 9,306 (92.72%).

Our dataset was built on Gelpi & Grieco's (2001) revised version of Bueno de Mesquita & Siverson's (1995) dataset, which in turn built on Bienen & van de Walle (1991). The new data solve several previous inconsistencies in Bueno de Mesquita & Siverson's (1995) data relying on *Encyclopedia Britannica*, Lentz's (1994, 1999) compilation of state rulers, and the websites <http://www.rulers.org> and <http://www.worldstatesmen.org>. In addition, we checked leaders against a new variable that coded whether the regime was parliamentary or non-parliamentary; in parliamentary regimes, the prime minister is always coded as the leader.

### *Dependent Variables*

As discussed above, our model features two dependent variables. The first measures whether a leader is removed from office; the second measures whether the leader becomes a target in an international crisis.

**Leader's Removal from Office** A dummy variable that takes on the value of 1 when the leader is removed from office and 0 otherwise. Leaders still in power on 31 December 1999 when we stop collecting data, leaders who died a natural death, and second-term US presidents after Franklin Roosevelt are coded as 0 in their last year in office.

**Target** A dummy variable coded as 1 when a leader was targeted in an international crisis in a given year and 0 otherwise. We also code as 0 all the years in which a leader is still involved as a target in a crisis initiated in previous years. Coding for continued fighting would confound two distinct processes: the opponent's decision to attack a leader and the conflict interactions that would determine the duration of the crisis. Data for this variable are obtained from Gelpi & Griesdorf's (2001) revised version of the ICB (Brecher & Wilkenfeld, 1997) dataset and from the latest release of the ICB (version 4) data (available at <http://www.icbnet.org>).

### *Explanatory Variables*

We distinguish three sets of explanatory variables that, along with the endogenously generated regressors, account for leaders' time in office and leaders' becoming a target. These variables pertain to leaders' features, countries' political and economic characteristics, and the conditions of the external security environment.

**Leader's Age** This variable measures how old leaders were. Data were obtained from Bienen & van de Walle's (1991) dataset, Lentz's (1994, 1999) encyclopedias, the websites <http://www.rulers.org> and <http://www.worldstatesmen.org>, and *Encyclopedia Britannica*.

**Number of Days in Office** This variable counts the number of days that have elapsed since a leader came to power. We take a log transformation because, in line with Gelpi & Grieco's (2001) measure, we discount the marginal effect of any additional day in power. This variable serves a double purpose: it measures the impact of the flow of time on the risk of being removed from power; and it measures whether leaders are more likely to be targeted in the early phases of their



office tenure in the target equation, as Hypothesis 3 would predict.

**Beyond Median Duration in Office** This is a dummy indicator coded as 1 for the years in which a given leader has been in power for a period longer than the median duration in office for that country and 0 otherwise. This is a second indicator of political experience for Hypothesis 3 to test whether there are any threshold effects, associated with time in office, on the probability of target events.

**Number of Previous Times in Office** This is a count variable that measures the number of times a leader has previously ruled a country. It is equal to 0 in the first spell in office. This variable is a third indicator for the Gelpi & Grieco (2001) hypothesis regarding the effects of political experience.

**Regime Type** To measure this variable, we break Polity IV's (2000) 21-point scale of regime type characteristics into three regime types and identify each type of polity with a dummy indicator: countries scoring +7 or higher are coded as democracies, regimes scoring between -6 and +6 are coded as mixed regimes (Jagers & Gurr, 1995). Autocracies are the residual category. The regime scores for the periods of interregnum, or transition – that is, those that are coded as -77 and -88 – are converted into conventional Polity scores using Polity IV's conversion rules: cases of interregnum are converted to a Polity score of 0; cases of transition are prorated across the span of the transition. The cases of foreign interruption (Polity IV's score of -66) are excluded from the dataset.<sup>6</sup> Finally, we code all the leaders who experienced – or enacted – a regime change during their office tenure by attribu-

ting to them the regime score they had for the longer period of time in the year of the regime transition (Chiozza & Goemans, 2003).

We then distinguish between parliamentary and presidential democracies by a dummy variable indicator, taken from the ACLP dataset of Przeworski et al. (2000) for the period 1950–90 and coded for the remaining periods from Cook & Paxton (1998), Derbyshire & Derbyshire (1996) and the *Encyclopedia Britannica*. We folded the ACLP category of mixed democracy into the presidential democracy category, since in non-parliamentary regimes, the conduct of foreign affairs is typically the responsibility of the president. The differentiation between presidential and parliamentary democracies allows us to control for some underlying heterogeneity, since presidential systems typically feature fixed terms.

**Median Duration in Office** This variable measures the median duration in power for all leaders in a given country in years (Bienen & van de Walle, 1991: 33). This variable serves as an all-inclusive proxy for the degrees of political instability not directly captured in our explanatory variables.

**Civil War Involvement** This is a dummy variable that takes the value of 1 when a leader is in office during a civil war and 0 otherwise. Data are taken from the latest version of the CoW Intra-State War dataset (Sarkees, 2000) and from Fearon & Laitin (2003).

**Economic Development (Log)** We code this variable by measuring the amount of energy consumption per capita on a yearly basis. We take the log of this quantity (for a similar approach, see Bollen, 1979). Energy consumption per capita (log) is used as a proxy for the level of economic activity. Data are taken from version 3.0 of the CoW

<sup>6</sup> See the Polity IV's web page at <http://www.cidcm.umd.edu/inscr/polity/convert.htm>.

capability dataset available in Bennett & Stam's (2000) *EUGene* 3.03 program.<sup>7</sup>

**Change in Economic Development** This variable measures the yearly change in the levels of energy consumption per capita. It is an indicator for the level of economic performance and is computed as the difference between the logarithm of energy consumption per capita in year  $t$  and in year  $t - 1$ , multiplied by 100.

**Trade Openness (Log)** This variable measures openness to trade by dividing the level of total annual trade by the level of energy consumption in a country, where energy consumption serves as a proxy for a country's level of economic activity. We take the logarithm of the resulting quantity. Total trade is measured as the sum of the state's total imports plus total exports. Data are taken primarily from Barbieri (2002) and from the International Monetary Fund's *International Financial Statistics* (available at <http://www.imf.org/external/pubind.htm>). We fill in missing values using the data in Gleditsch (2002) and in the World Bank's *World Development Indicators – WDI Online* (available at <http://devdata.worldbank.org/dataonline/>).

**Change in Trade Openness** This variable measures the yearly change in trade openness. It is computed as the difference between the logarithm of trade openness in year  $t$  and in year  $t - 1$ , multiplied by 100.

**Total Population** This variable measures the logarithm of the total population in any given year. Data are taken from version 3.0 of the CoW capability dataset available in

Bennett & Stam's (2000) *EUGene* 3.03 program, from Mitchell (1998a,b,c), and from the World Bank's *World Development Indicators – WDI Online* (available at <http://devdata.worldbank.org/dataonline/>).

**National Capabilities** This variable is an overall indicator of national capabilities and is coded using the Composite Indicator of National Capabilities (CINC) developed by the CoW project (Geller & Singer, 1998: 148–150). Data are taken from version 3.0 of the CoW capability dataset available in Bennett & Stam's (2000) *EUGene* 3.03 program.

**Major Power** This is a dummy indicator that takes on the value of 1 for all the leaders of a major power and 0 otherwise. Data are taken from the State System Membership List from the Correlates of War 2 Project (2003).

**Military Mobilization** We measure this variable using a procedure developed by Alesina & Rosenthal (1995). First, we take the difference between the number of soldiers in year  $t$  and in year  $t - 1$ . Then, we divide this difference by the population in that given year and multiply it by 100. Data are taken from the capability dataset available in Bennett & Stam's (2000) *EUGene* 3.03 program and from the World Bank's *World Development Indicators – WDI Online* (available at <http://devdata.worldbank.org/dataonline/>).

**Number of Borders** This variable counts the number of land borders of each nation. Data are taken from Stinnett et al. (2002).

**Time Since Last Target (Log)** This variable measures the number of days that have elapsed since a leader became a target in an international crisis. We take a log transformation because we assume that any

<sup>7</sup> For 508 observations (5.06%) that have a level of energy consumption equal to zero, we add .1 before dividing by population and taking the log. We do not recode the observations with a missing value on energy consumption in the CoW dataset.

additional day has a declining impact on the probability of becoming a target.

**Ongoing Crisis** This is a dummy variable that takes on the value of 1 if a crisis is still ongoing and 0 otherwise. Data are taken from Gelpi & Griesdorf (2001) and from the ICB data (version 4) (available at <http://www.icbnet.org>).

**Conflict Outcomes** We distinguish three different outcomes in line with the codings of Gelpi & Griesdorf (2001) and the ICB data: victory, defeat, and draw. The outcome of the conflict is measured with a time-varying indicator which is measured in the last year conflict was waged and in the subsequent years until there is a leadership change. Each of the three outcome variables is coded using the following time-dependent function:  $\text{Outcome}_t = 1/t$ , where  $t$  represents the number of years since the termination of the conflict. The conflict indicators are coded as 0 for the leaders who have not fought a conflict or lost power before conflict termination. This coding choice reflects the intuition that voters or members of the ruling coalition attach declining importance to past conflict outcomes over time when they decide whether to remove or support the incumbent leader.

## Data Analysis

Table II reports the estimates of our two-stage probit model. We begin with an evaluation of the fit of the reduced-form equations; then we discuss the results and their implications for our hypotheses.

For the equation measuring the probability of becoming a target, McKelvey & Zavoina's (1975) and McFadden's (1974) measures of fit range from .31 to .35, while Estrella's (1998) is around .13. When we move to the reduced-form equation measuring the probability of losing office, McKelvey

& Zavoina's (1975) measure reaches .45, while McFadden's (1974) and Estrella's (1998) are around .12. Overall, both reduced-form equations should give us enough leverage to assess how the probability of losing office and the probability of becoming a target affect a leader's conflict relations with other leaders and their political fate (Bound, Jaeger & Baker, 1995; Bollen, Guilkey & Mroz, 1995).

We first discuss the two equations on the probability of becoming a target. The structural equation (Model 2) delivers an important result at the very outset. The endogenous variable measuring the risk of losing office has a statistically significant negative effect on the probability of becoming a target, which lends empirical support to the diversionary-selection Hypothesis 1. Confirming Leeds & Davis' (1997) results, we find that leaders become less likely to be targets as their risk of losing office increases, that is, when their diversionary *incentives* should be at their peak (see also Clark, 2003).

To explore this finding, we replicated the analysis by splitting the sample by regime type: this way, we obtain an assessment of the differential impact of the risk of losing office on the probability of a leader being targeted across regime type. The coefficients are  $-0.629$  ( $p = 0.366$ ) for autocratic leaders;  $-1.030$  ( $p = 0.080$ ) for leaders of mixed regimes; and  $-0.962$  ( $p = 0.007$ ) for leaders of democratic regimes. Distinguishing between the two institutional varieties of democracies, we obtain a coefficient of  $-1.590$  ( $p = 0.068$ ) for leaders of parliamentary democracies and a coefficient of  $-0.185$  ( $p = 0.792$ ) for leaders of presidential democracies. Thus, the risk of losing office never increases the probability of being challenged. The risk of losing office does not affect the probability of a challenge for autocrats and democratic presidents, and decreases the risk for leaders of mixed

Table II. Two-Stage Probit Model Measuring the Probability of Becoming a Target and the Probability of Losing Office

	Target equations				Loss of office equations					
	Reduced-form equation Model 1		Structural equation Model 2		Reduced-form equation Model 3		Structural equation Model 4			
	<i>b</i>	<i>se(b)</i>	<i>p-value</i>	<i>b</i>	<i>se(b)</i>	<i>p-value</i>	<i>b</i>	<i>se(b)</i>	<i>p-value</i>	
Risk of losing office	-	-	-	-0.998	0.455	0.028	-	-	-	-
Risk of being a target	-	-	-	-	-	-	-	-	-	-
Mixed regime	0.092	0.081	0.258	0.450	0.258	0.081	0.422	0.048	0.000	0.637
Parliamentary democracy	0.098	0.097	0.311	0.704	0.414	0.089	0.562	0.058	0.000	0.000
Presidential democracy	0.024	0.101	0.816	0.677	0.362	0.061	0.588	0.059	0.000	0.000
Civil war	0.343	0.100	0.001	0.703	0.191	0.000	0.327	0.062	0.000	0.001
Economic development (log)	0.003	0.020	0.884	-0.020	0.031	0.522	-0.020	0.010	0.049	0.030
Change in econ. development	-3.9E-04	0.002	0.807	-0.002	0.003	0.322	-0.002	0.001	0.009	0.012
Trade openness (log)	0.014	0.025	0.563	-0.028	0.034	0.406	-0.024	0.012	0.045	0.023
Change in trade openness	-3.2E-04	0.001	0.831	-0.002	0.003	0.469	-0.001	5.0E-04	0.020	0.031
Total population (log)	0.035	0.025	0.157	0.052	0.033	0.114	-0.037	0.014	0.011	0.022
National capabilities (CINC)	0.744	1.487	0.617	0.068	1.479	0.963	-1.492	0.859	0.082	0.593
Median duration in office	-0.011	0.010	0.242	-	-	-	-0.047	0.007	0.000	0.000
Major power	0.140	0.155	0.368	0.566	0.197	0.004	0.206	0.090	0.023	-
Military mobilization	0.041	0.060	0.493	0.083	0.179	0.643	0.027	0.022	0.214	-
Number of borders	-0.034	0.014	0.013	0.003	0.016	0.859	0.010	0.008	0.178	-
Days since last target (log)	-0.027	0.032	0.406	-0.208	0.048	0.000	-0.021	0.017	0.223	-
Ongoing crisis	-1.608	0.189	0.000	-0.776	0.315	0.014	-0.153	0.094	0.103	-
Victory	2.198	0.144	0.000	-	-	-	-0.393	0.122	0.001	0.982
Defeat	1.374	0.153	0.000	-	-	-	0.397	0.112	0.000	0.220
Draw	1.686	0.117	0.000	-	-	-	-0.434	0.107	0.000	0.282
Age	-3.4E-04	0.003	0.903	-	-	-	0.012	0.002	0.000	0.108
Days in office (log)	-0.049	0.029	0.096	-0.260	0.142	0.068	-0.253	0.018	0.000	0.000
Beyond median duration	-0.041	0.081	0.613	0.895	0.419	0.033	0.639	0.050	0.000	0.000
Previous times in office	0.123	0.054	0.022	0.111	0.069	0.105	-0.090	0.034	0.008	0.016
Constant	-1.975	0.377	0.000	-0.897	0.493	0.069	0.054	0.216	0.801	0.827
Number of observations	9,306			9,306			9,306			
Log-likelihood	-984.5			-1331.3			-3812.3			
McKelvey-Zavoina	0.314			0.254			0.447			
McFadden	0.353			0.124			0.131			
Estrella	0.132			0.043			0.124			

Standard errors are corrected to account for the two-step estimation (Maddala, 1983: 246-247) and are clustered by leader.

regimes and prime ministers in democracies (see Appendix on the web).

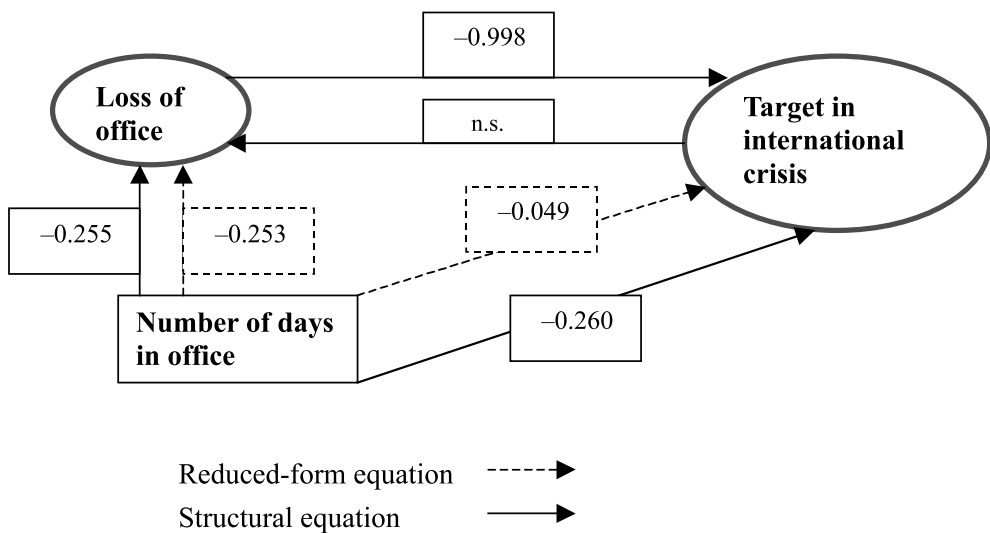
Our findings on how political experience affects the probability of becoming a target (Hypothesis 3), on the other hand, are less clear-cut. Controlling for the probability of losing office, we see in Model 2 that, contrary to Hypothesis 3, two of the three political experience variables – beyond median duration in office and previous times in office – increase the probability of becoming a target, even though previous times in office is only marginally significant at the .1 level. Consistent with Hypothesis 3, however, increasing the number of days a leader has been in power decreases the probability of becoming a target, with a coefficient fairly close to the .05 significance level.

Substantively, a comparison of the coefficients for these variables in the reduced-form and structural equations reveals how a leader’s political experience affects the probability of becoming a target through two pathways, illustrated in Figure 1. Starting from the Days in office variable, we see that its coefficient in the reduced-form equation

(Model 1) is smaller, in absolute terms, and of lesser significance than it is in Model 2. To understand the dynamic at work, we must turn to Model 3, the reduced-form equation on the probability of losing office. There we see that the number of days a leader has been in office reduces the probability of losing office and, as we saw in Model 2, the lower the risk of losing office the higher the probability of becoming a target. Through this indirect pathway, thus, the number of days has a positive effect on the probability of becoming a target. In the structural equation (Model 2) where we control for the risk of losing office, however, the number of days in office has a more sizeable impact on the probability of becoming a target. The overall attenuated coefficient in Model 1, therefore, is the product of a (positive) indirect effect and of a larger (negative) direct effect.

A similar dynamic is at work for the beyond median duration variable. Along the indirect pathway, a leader who stays in power longer than the median duration is more likely to lose office (Model 3), but as the leader becomes more likely to lose office, he

Figure 1. Two Pathways to a Target



or she becomes less likely to be targeted. Thus, along the indirect pathway, staying in power beyond the median duration reduces the probability of becoming a target. Along the direct pathway (Model 2), we see that leaders who stay in power longer are significantly more likely to become targets. In Model 1, where we observe the overall effects, we see that these two pathways more or less offset each other as the coefficient is not significant. We see in Models 1 and 2 that the number of times a leader has previously been in office seems to positively affect the probability of becoming a target mostly directly and separate from its effect on the probability of losing office. These findings suggest that more political experience can have both domestic and international repercussions that potentially offset each other, which leaves the empirical verdict on Hypothesis 3 decidedly mixed.

We next shift our attention to the impact of the remaining variables that measure a country's domestic political and economic features. A careful examination of the effects of the regime type variables in the reduced-form (Model 1) and structural (Model 2) equations reveals whether and how the risk of losing office affects the probability of becoming a target for leaders in different regime types. In the reduced-form equation (Model 1), we find that leaders of mixed and democratic – both parliamentary and presidential – regimes are not significantly different from leaders of autocratic regimes when it comes to the probability of becoming a target. In the structural equation (Model 2), however, once we control for the effect of the endogenous risk of losing office, we find that the leaders of mixed regimes and of democratic – again, both parliamentary and presidential – regimes are more likely to become a target than are autocratic leaders, at least at the .09 level of statistical significance.

This result should be read in conjunction

with the finding in the reduced-form equation predicting the probability of losing office (Model 3): there, we see that leaders of mixed and both institutional varieties of democratic regimes are significantly more likely to lose office than leaders of autocracies. Thus, these leaders have a higher probability of losing office, and the higher the probability of losing office, the lower the probability of becoming a target. Together, these findings suggest that compared to leaders of autocracies, leaders of mixed and democratic regimes overall face the same probability of becoming a target because they face a relatively higher probability of losing office. Were it not for their relatively higher insecurity in office, leaders of mixed and democratic regimes would be more likely to become a target than autocratic regimes.

Involvement in a civil war significantly increases the probability of becoming a target in an international crisis, indicating how domestic unrest can spread internationally (Gleditsch, 2003). Note, however, that in the reduced-form equation predicting the probability of losing office (Model 3), civil war involvement significantly increases the probability of losing office. Therefore, via its effect on leaders' tenure, civil war involvement indirectly lowers the probability of becoming a target. But civil war also has a direct and positive effect on the probability of becoming a target, separate from its effect on the probability of losing office. However, the direct pathway clearly dominates the indirect pathway: notwithstanding the dampening effect of civil war through its effect on the probability of losing office, we see in Model 1 that overall civil war involvement increases the probability of becoming a target.

No systematic results emerge about the effects of economic development and its yearly change, trade openness and its yearly change, population size, and national

capabilities on the probability of becoming a target: both the reduced-form and the structural coefficients in Model 1 and Model 2 are statistically insignificant.<sup>8</sup>

Of the variables measuring the international political context, three turn out to be statistically related to the probability of becoming a target: as we see in Model 2, major power status is, unsurprisingly, a positive predictor of the chances of being a target. The presence of an ongoing crisis and the number of days since the last time the country became a target have a dampening effect, thus replicating the common finding on the presence of temporal dependence in the study of conflict (Beck, Katz & Tucker, 1998). On the other hand, military mobilization and the number of borders are statistically unrelated to the probability of becoming a target. The finding that the number of borders is insignificant in the structural equation (and negative in the reduced-form equation) is puzzling, given earlier findings suggesting that the number of borders positively and significantly affects conflict involvement (Stinnett et al., 2002).

We next turn our attention to the equations predicting the probability of losing office (Models 3 and 4). The first thing to notice is that the coefficient on the variable measuring the (endogenous) risk of being a target is positive but not statistically significant. This implies that leaders do not obtain tenure benefits when conditions make it more likely a country will become a target in an international crisis. In other words, we observe no rally-around-the-flag effect, and Hypothesis 2 must be rejected. One potential explanation may be that our yearly observations are not fine-grained enough to detect

a rally-around-the-flag effect, since we know that any such effect is fleeting and short-lived (Mueller, 1973; Levy, 1989; Baker & Oneal, 2001). The variable measuring involvement in an ongoing crisis is also negative, but insignificant, which again indicates that conflict participation is not associated with more secure prospects of staying in power.<sup>9</sup>

Our findings show how domestic political institutions help account for patterns of office tenure. All the dummy variables identifying different regime types are positive and significant both in the structural and in the reduced-form equation: leaders of mixed and democratic (parliamentary and presidential) regimes are less secure in office than leaders of authoritarian regimes. The results on the variables that measure economic conditions show that higher levels of economic development, as measured by the log of energy consumption per capita and its annual growth, reduce the probability of losing office. A similar pattern holds for trade openness: the more open a country and the more it is increasing its openness, the less likely a leader is to lose office.

Contrary to what Bienen & van de Walle (1991: 66, 73) report, population size significantly affects a leader's probability of losing office. Countries with larger populations seem to be more stable than countries with smaller populations, producing longer time in office for their leaders. An analogous association exists with respect to national capabilities, but the association is statistically significant only in the reduced-form equation (Model 3). Unsurprisingly, the longer the average stay in power for the leaders of a given country, the longer any particular leader will stay in power. While this finding might appear tautological at first glance, it captures all the residual political

<sup>8</sup> We checked whether any of these variables failed to reach statistical significance because of multicollinearity by regressing each of them in turn on all the remaining variables included in the reduced-form equations. The  $R^2$  values from these auxiliary regressions range from .49 to .66. In particular, the  $R^2$  for CINC is .61. Thus, multicollinearity affects our results mildly, if at all.

<sup>9</sup> We also checked the robustness of these results by estimating a model including the variable measuring the levels of military mobilization in Model 4. This variable turns out to be insignificant.

instability not directly measured by the variables in our specification (Bienen & van de Walle, 1991: 33).

The personal traits and characteristics of leaders significantly affect their time in office. The number of times a leader has previously been in power and the number of days a leader has been in power both significantly reduce a leader's probability of losing office. We find, in other words, that leaders face higher risks of office removal in the early phases of their tenure and of their careers, but strengthen their hold on office as time goes by and their political experience increases (Bienen & van de Walle, 1991; Bueno de Mesquita & Siverson, 1995), up to the point where they have been in power longer than the median duration in power for leaders of their country. Finally, as leaders' age increases, so does the probability of office removal. Thus, while biological time is a liability, political time seems to work in a leader's favor.

The last set of variables measures the effects of conflict outcomes. In the structural equation (Model 4), the coefficients on the winning and drawing variables are negative while that on defeat is positive, but only the coefficient on drawing is barely significant at the .1 level. In the reduced-form equation (Model 3), on the other hand, all three coefficients maintain the same sign and become highly significant.<sup>10</sup> Thus, our findings show that leaders seem to be rewarded for winning and drawing in international crises and punished for defeat (but see Chiozza & Goemans, 2004).

We next briefly assess the substantive impact of regime type, leaders' political experience, and the risk of losing office on the probability of a leader's being targeted in a crisis. Table III reports the predicted

probabilities associated with the estimates of Models 1 and 2 under alternative configurations of the explanatory variables.<sup>11</sup>

As Table III shows, the probability of a leader being challenged in a crisis decreases as the risk of losing office increases, as we discussed above. For all regime types, we observe that when the risk of losing office is high – one standard deviation above the median level – the probability of becoming a target is about 90% smaller than when the risk of losing office is low (one standard deviation below the median value). It is particularly noteworthy that authoritarian leaders at high risk of office removal are the least likely to be targeted. If leaders with a high probability of losing power have the highest diversionary *incentives*, and therefore are those to avoid challenging militarily, it appears that authoritarian leaders experiencing hard times at home are seen by foreign counterparts to be more likely to accept any pretext for diversionary conflict. Conversely, democratic leaders and leaders of mixed regimes who are secure in power may be seen by their foreign counterparts as least likely to fall prey to diversionary *incentives*. Once we factor out leaders' tenure, the differences between domestic regime types nearly vanish: as we see in the column reporting the overall probabilities computed from Model 1, the difference in the estimated effects is less than half a percentage point.

Moving to the impact of the three variables measuring leaders' political experience, we see how the probability of becoming a target decreases as leaders' time in office increases: for a leader that has survived in power three years, the risk of being targeted in a crisis is from about 50% to about 65% lower than for a leader with one year of experience, depending upon the levels of the

<sup>10</sup> If we drop the insignificant participation in an ongoing crisis variable from the structural equation, Victory and Draw significantly reduce the probability of losing office, and Defeat significantly increases that probability.

<sup>11</sup> All remaining variables are set at their median values, with the exception of Beyond median duration in office, which is set to 1 when Days in office, is greater than, or equal to, the median (3 years and 3 months).



Table III. Probabilities of Target Events (%)

	<i>Risk of losing office</i>			<i>Overall effects</i>
	<i>Low</i>	<i>Median</i>	<i>High</i>	
<i>Regime type</i>				
Autocratic regime	7.511	1.914	0.341	0.709
Mixed regime	16.144	5.243	1.207	0.913
Parliamentary democracy	23.124	8.567	2.269	0.928
Presidential democracy	22.298	8.146	2.125	0.757
<i>Time in office, shorter than median duration</i>				
1 month	8.533	2.257	0.419	1.287
1 year	2.172	0.399	0.051	0.932
3 years	1.059	0.165	0.018	0.806
<i>Time in office, longer than median duration</i>				
5 years	6.146	1.478	0.248	0.672
8 years	4.798	1.078	0.169	0.630
<i>Number of previous times in office</i>				
0	7.511	1.914	0.341	0.709
1	9.217	2.496	0.475	0.991
3	13.456	4.108	0.886	1.857

Probabilities are computed from Model 2. Overall effects are computed using the estimates of the reduced-form equation (Model 1). Low and high risk of losing office are obtained by subtracting or adding a standard deviation to its median value. The remaining explanatory variables are set at the median values, with the exception of Beyond median duration in office which is set to 1 when Days in office is greater than, or equal to, the median (3 years and 3 months).

risk of losing office. But, as soon as a leader has governed his country longer than the median duration (three years and three months, in our dataset), the chances of experiencing a target event ‘jump’ upwards abruptly and reach the levels they had when a leader had just come to power. Finally, leaders who have had a previous office experience are from about 22% to about 39% more likely to be targeted than a leader with no previous spells in office, depending upon the risks of losing office.

## Conclusion

In the theoretical literature on conflict, models seem to be premised either on the strategic interaction between countries or on the calculus of office-seeking leaders. Few scholars, with the notable exceptions of Smith (1996) and Tarar (2003), have tried to

integrate these two perspectives. In particular, Smith (1996) investigates how one leader’s probability of losing office conditions the strategic calculus of other leaders in a crisis. In this article, we present qualified empirical support for such strategic behavior.

We find that leaders with a high risk of losing office are less likely to be targeted in an international crisis, as suggested by Smith (1996), Leeds & Davis (1997), and Tarar (2003). A second finding emerges once we control for the (endogenous) risk of losing office in the structural equation: leaders of democratic and mixed regimes are more likely to be targeted than authoritarian leaders. Because the difference between these leaders was not significant overall (in the reduced-form equation), we conclude that the very insecurity of leaders of democracies and mixed regimes restrains other leaders from targeting them. Moreover, we show

that tenure motivations may play a more important role than political experience in the conflict behavior of leaders. Tenure motivations should thus be explicitly modeled in future empirical analyses of international conflict.

This article also contributes to the second leg of the literature on diversionary war: by explicitly modeling a reciprocal relationship with a simultaneous equation estimator, we examine whether (the risk of) being targeted decreases the probability of losing office. Because we do not find a rally-around-the-flag effect generated by mounting foreign threats, the modified strategic diversionary conflict argument – which argues for the strategic avoidance of leaders with strong diversionary incentives – fails an important test (but see Tarar, 2003). If leaders do not gain from (the risk of) being targeted, they will not enjoy a bargaining advantage with potential challengers, and potential challengers lack the necessary incentive to avoid such leaders. This implies that the mechanism that underlies our key finding on the inverse relationship between the risk of losing office and the occurrence of target events cannot be found within the purview of the diversionary use of force literature.

In a companion piece to this article (Chiozza & Goemans, 2003), we examine the standard theories of the diversionary use of force. In other words, we model a reciprocal relationship between the probability of losing office and conflict initiation. Contrary to the standard theories of diversionary conflict, we find that an increase in the risk of losing office makes leaders less likely to initiate a crisis, while an increase in the risk of international crisis initiation makes leaders more likely to lose office. When read in conjunction with each other, these two articles strongly suggest that the diversionary use of force is a rare phenomenon.

The one–two punch of these two articles does not just yield negative results; together

they present fresh and strong evidence for an empirical regularity previously suggested by Gaubatz (1991). Contrary to the conventional wisdom of several generations, international conflict is much more strongly associated with secure than with insecure leaders. Two potential mechanisms might account for this phenomenon. First, defeat in an international conflict might have consequences harsher than the mere loss of office. In other words, the punishment for defeated leaders is not ‘truncated’, as the *gambling for resurrection* mechanism maintains, but is ‘extended’ to include such outcomes as exile, imprisonment, or death (Goemans, 2000). Second, insecure leaders might be able to signal their resolve more credibly than secure leaders, given that they would be unlikely to stake their shaky careers on the outcome of a conflict unless they were highly resolved. If insecure leaders can more credibly signal their resolve, we should observe fewer insecure and unresolved leaders than secure and unresolved leaders in international crises.

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