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Supporter of stability or agent of agitation? The effect of US foreign policy on coups in Latin America, 1960–99

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Abstract

This article takes a two-step approach to improving our understanding of how US foreign policy signals affect the likelihood of coups in Latin America. First, a large body of qualitative literature has developed a ‘conventional wisdom’ on this subject, suggesting that pressure from the USA plays a key role in stabilizing favored leaders and destabilizing unfavored leaders. Meanwhile, quantitative scholarship analyzing coups focuses almost exclusively on intrastate factors. The first step brings these two bodies of work together by providing quantitative evidence that hostile US signals increase the likelihood of coups, while supportive signals have a stabilizing effect. The second step moves beyond the conventional wisdom by (1) reconsidering theoretical assumptions within the conventional argument and (2) identifying anomalies within the preliminary empirical analyses. These efforts reveal several factors that are likely to impact how coup plotters respond to US signals. Among these factors, empirical analyses indicate that US signals are particularly important when economic dependence on the USA increases, during the middle of a US president’s term in office, when they have moderate levels of consistency, and when they specifically mention the military. Overall, the first stage of this article provides a robust confirmation of the conventional wisdom, while the second stage moves the literature down a path that is largely unexplored by previous work.

Keywords

coups d’état, Latin America, signals, US foreign policy

Introduction

On 3 November 1970, Chile’s Salvador Allende became the first democratically elected Marxist head of state in the history of Latin America. Fearing a spread of Left-leaning leadership across the continent, President Nixon tapped Henry Kissinger to lead a concentrated effort to oust Allende from power by supplying anti-Allende politicians and media with covert funds, building alliances with military officers, applying diplomatic pressure, and working to deny Chile international financial assistance (Kornbluh, 1999). In more graphic terms, recently released CIA documents confirm that Nixon ordered the CIA to ‘make the economy scream’ in order to unseat the democratically elected president (CIA, 1970). After three years of intense pressure, the Allende government was overthrown in a coup in September 1973, bringing General Pinochet’s bloody dictatorship to power.

While today’s efforts are perhaps less obvious, plenty of evidence indicates that the USA continues to play a key role in governmental stability in Latin America. For example, President Hugo Chavez recently blamed the USA for attempting to foment a coup in Venezuela: ‘I know I am condemned . . . I’m sure in Washington they are planning my death . . . If they manage to kill me there will only be one person in this world to blame: the president of the United States’ (Markey, 2005). The

rise of other Left-leaning leaders, such as Cristina Kirchner in Argentina and Evo Morales in Bolivia, reflects the same basis for the USA’s Cold War efforts to foment coups in the region.¹ Thus, it appears that coups continue to be relevant in Latin America, and we can expect the United States to continue to play a key role in these events.

This article takes a two-step approach to improve our understanding of how relations with the USA affect coups in Latin America. The qualitative literature on this subject reveals a ‘conventional wisdom’, suggesting that the USA plays an integral role in (de)stabilizing executives in Latin America.²

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¹ This is not to say that the general rise of Leftist governments will automatically draw the ire of the USA. Many newly elected Leftist leaders, including Presidents Bachelet (Chile), Vázquez (Uruguay), and Lula (Brazil) have forged strong ties with the USA (Hakim, 2003; Castaneda, 2006).

² This work includes rich detail of US efforts to overthrow both dictators and democratically elected regimes (LaFeber, 1993), and analyses of recently declassified documents uncovering covert operations during the Cold War era (Kornbluh, 1999). The volume of work discussing the US involvement in the coup to overthrow Allende alone is impressive, not to mention the entire shelves of books discussing dozens of other well-known coups in the region. See Zimmermann (1983) for an excellent (albeit dated) review of the literature considering the effect of outside actors on coups in Latin America.

Table I. Decisionmaking factors for staging a coup

		<i>Perceived probability of success</i>	
		<i>Low</i>	<i>High</i>
Anticipated benefits of staging a successful coup	<i>Low</i>	<ul style="list-style-type: none"> • Potential gain: low • Coup-proofing strategies: strong • US signals: supportive • Prediction: low probability of coup attempts 	<ul style="list-style-type: none"> • Potential gain: low • Coup-proofing strategies: weak • US signals: hostile • Prediction: moderate probability of coup attempts
	<i>High</i>	<ul style="list-style-type: none"> • Potential gain: high • Coup-proofing strategies: strong • US signals: supportive • Prediction: moderate probability of coup attempts 	<ul style="list-style-type: none"> • Potential gain: high • Coup-proofing strategies: weak • US signals: hostile • Prediction: high probability of coup attempts

In contrast, quantitative scholarship focuses almost exclusively on intrastate factors to explain the occurrence of coups.³ The first step is to bridge these literatures by presenting quantitative analyses of the conventional wisdom. This step is important because (1) it allows us to examine whether or not the conclusion proposed by the case literature holds across time and space, and (2) it allows us to compare the substantive impact of US relations with intrastate factors identified within the quantitative literature. After confirming the conventional wisdom with empirical tests, the second step provides a more innovative discussion of how relations with the USA might impact coups. This is done by examining anomalies from the preliminary empirical analyses. The resulting discussion yields a handful of testable propositions that extend well beyond the conventional wisdom on this subject. I begin by providing a framework to guide both sections of the article.

Theoretical framework

The literature examining the onset of civil wars provides a useful starting point to build a framework to understand the decision to stage a coup. Many scholars take a rationalist approach to explain these decisions, focusing on factors such as the likelihood of victory, the benefits of victory, and the costs of fighting and/or defeat. These factors appear in Grossman's (1999) model of rebellions, for example, and in civil war models from Lichbach (1995) and Collier & Hoeffler (2004). Several scholars have drawn on similar concepts to explain the decision to stage a coup (Londregan & Poole, 1990; Sutter, 2000; Belkin & Schofer, 2003). While my approach continues this vein of research, one should be careful

not to push the analogy between coups and civil wars too far. The primary difference between the two is that coups are led by either the military or the elite, and are often so brief that they are concluded before the public is aware of the attempt. Coups also frequently happen without a single shot being fired. In contrast, civil wars generally include participation by at least some sector of the general population, and all civil war definitions have at least some minimum death threshold. The brevity of coups and the absence of mass participation limit our ability to draw on the leading theories from civil war scholars in developing explanations for coup attempts.⁴

In spite of these limitations, we can point to two key factors analogous to both the coup and civil war literatures to explain the decision to stage a coup. These include (1) the anticipated benefits of staging a successful coup, and (2) the perceived probability of success. These two factors are broken down in Table I with the first factor on the y-axis and the second factor on the x-axis.

Based on this framework, we should expect the likelihood of coups to increase whenever the perceived probability of success increases (right on the x-axis) or the anticipated benefits of staging the coup increase (downward on the y-axis). Looking at the y-axis, we see that the benefits of staging a successful coup depend on coup plotters' analyses of the current situation compared with the anticipated situation following a successful coup. This decision is largely captured by factors already covered in the literature. For instance, Fossum (1967), Londregan & Poole (1990), and Belkin & Schofer (2003) show that poverty leads to a higher probability of coups because coup plotters in impoverished situations predict large improvement in the future compared with those who already enjoy a higher standard of living. Similar arguments and findings are presented by scholars examining the onset of civil wars (Fearon & Laitin,

³ Early studies focused on factors such as geographic size, poverty, election periods, contagion, and the economy (Fossum, 1967), motives and opportunities (Finer, 1962), and modernization (Needler, 1966). More recent work focuses on wealth and economic growth (Londregan & Poole, 1990), civil society, regime legitimacy, the influence of recent coups (Belkin & Schofer, 2003), and variations in leadership and political parties (Hakim, 2003; Valenzuela, 2004).

⁴ For example, Collier & Hoeffler (2004) argue that lootable resources make civil wars more likely because the rebels can derive financial benefits from selling resources during the conflict, regardless of whether or not the rebels eventually win the conflict. The brevity of coups makes success necessary for the leaders to have access to these resources.

2003; Collier & Hoeffler, 2004). Because the structural factors influencing coup benefits have already been covered widely in the literature, the remainder of this article focuses on coup plotters' expectations for staging a successful coup.

Belkin & Schofer (2003: 596) indirectly examine a coup plotter's perceived probability of success by focusing on governmental coup-proofing strategies, such as paying off potential challengers or dividing armies into rival forces. Another factor that might affect the probability of success that has not been developed in the literature is the effect of signals sent from external actors. Gartzke (2003: 1) defines signals as 'actions or statements that potentially allow an actor to infer something about unobservable, but salient, properties of another actor'. Signals may be important for coups because they indicate support for either political change (if hostile) or the continuation of the government (if supportive). Thyne (2006, 2009) presents an analogous argument in the civil war literature, arguing that civil wars become increasingly likely as external actors show hostilities towards the current government. Signals should have similar implications for coup attempts. The following section develops a two-part theory to better understand these implications.

Foreign signals and coup risk

While many countries have likely played a role in affecting coups in Latin America, the historical dominance of the USA in the region make it reasonable to focus exclusively on signals sent from the USA. Beginning with the Monroe Doctrine (1823), the USA made clear its intent to keep European powers out of the region. This policy was reinforced with the 'Roosevelt Corollary' (1904), which provided justification for direct US involvement based on Roosevelt's view that the USA had a 'moral mandate' to enforce proper behavior in Latin America. This evidence suggests that the USA has played a unique role regarding the security of Latin American states, providing a focal point for this study.

Relations between the USA and Latin American states have two primary effects on the probability of a coup. First, case evidence shows that the USA has played a key role in inciting coups by sending forces and supplies to coup plotters, which serve as hostile signals that increase their perceived probability of successfully overthrowing the government. One of the most famous examples is the CIA-inspired overthrow of Guatemalan President Jacobo Árbenz Guzmán (1954) following the implementation of Left-leaning land redistribution policies (including the expropriation of land owned by the US-based United Fruit Company). In this case, the CIA used economic, paramilitary, psychological and diplomatic actions to destabilize the leader and put anti-communist elements in power. The efforts culminated in a coup attempt by Colonel Carlos Castillo in 1954 (Aybar de Soto, 1978; Cullather, 1999). The extensive hostile signals sent from the USA to the Árbenz government indicated that even Castillo's meager force could successfully attain and sustain power with US support.

More generally, hostile signals channeled from the USA should increase coup plotters' perceived probability of staging a successful coup (right on the x-axis) because they give the plotters an advantage over the government in solidifying power once the coup is attempted, and deplete the resources available to the government to deter coup attempts by blocking foreign aid or international investment.

While the examples support the discussion to this point, it is unlikely that lumping all hostile foreign policy signals into one group will provide satisfactory findings for either scholars or policymakers. What is needed is a more detailed understanding of how variations in hostile signals might affect the likelihood of coups in the region. One way that we can break down signals is by considering the factors that would be most important to a coup plotter. Namely, a leader must be convinced that the signals are credible before taking the risky decision to stage a coup. If a signal lacks credibility, then the signal is likely dismissed as noise. Scholars in the international relations literature have long considered the credibility of signals, generally concluding that credibility is derived from the costs incurred in sending the signal (Powell, 1990; Fearon, 1997). Examples of costly hostile signals include mobilizing troops or imposing sanctions, while cheap hostile signals would include verbal criticisms of the government or withdrawing a high-level diplomat. Because signals of the former type come with real costs to the signaler, they are likely to be viewed as credible signals of support for a coup plotter. Cheap signals should have less of an impact because the plotter is likely to be uncertain about the true likelihood of support if a coup were attempted.

We should also consider how these same signals might affect the decisions of the current leader. As signals become increasingly costly, they also become increasingly transparent. Thus, while hostile signals should embolden coup plotters, the government should react to the same information by increasing its commitment to coup-proofing strategies. Fortunately, Belkin & Schofer (2003, 2005) provide an excellent discussion of coup-proofing strategies, along with indicators to operationalize such strategies empirically. When taking into account the government's response to external signals, therefore

H1: We should expect hostile signals sent from the USA to a Latin American state to increase the probability of a coup. The impact of the signals should increase as the costs of the signals increase.

Supportive signals should depress coup plotters' perceived probabilities of staging successful coups because they would likely face external resistance if one were attempted. For example, in 1944 dictator Martínez of El Salvador was ousted by a revolution. Five months later, the interim government was overthrown in a coup led by the dictator's former chief of police. Given that prior coups are an excellent indicator of future coups (Zimmerman, 1983), we should expect a high probability of another coup occurring in the country within

a short period of time. However, the US government recognized the new dictator as the head of state immediately following the coup. This decision sent an important signal to anyone considering another coup to oust the new leader – the USA would likely assist the new government in the event of an attempted coup. Even if coup leaders could be initially successful in overthrowing the government, they would likely face harsh external resistance to their rule from the USA, making it unlikely that a coup attempt would happen in the first place.

These examples support the notion that supportive signals from the USA should increase the government's ability to deter coup challenges by decreasing a coup plotter's perceived probability of staging a successful coup (left on the x-axis). We should again consider how the costs of the signal affect its credibility. Costly signals of support from the USA, including formal alliance ties, increased levels of trade, and financial assistance, should have the largest effect in suppressing coup attempts. Though cheap supportive signals, such as the visit of a high-level diplomat, should help solidify the government's hold on power, they should have less of an impact on warding off coup attempts than costly signals because it is more difficult for the coup plotters to clearly understand the level of support from the USA to the government. Thus,

H2: We should expect supportive signals sent from the USA to a Latin American state to decrease the probability of a coup. The impact of the signals should increase as the costs of the signals increase.

Cases, variables, and methods

The above argument builds on the rationalist model of conflict by assuming that coup plotters base their decision to stage a coup on a cost/benefit analysis. Signals sent by the USA are argued to have a direct effect on this decision. The empirical analyses in this section are designed to provide explicit tests of the implications of the theoretical model. We should expect supportive signals sent from the USA to Latin American states to decrease the likelihood of a coup attempt, while hostile signals should have the opposite effect. These expectations are tested by analyzing monthly data for 19 countries in Latin America from 1960 to 1999. The time period is selected based on data available for the dependent and independent variables.

The dependent variable is a dichotomous variable coded 1 if a coup is attempted. Data for attempted coups come from the Center for Systemic Peace (CSP), which defines a coup as the 'forceful seizure of executive authority and office by a dissident/opposition faction within the country's ruling or political elites that results in a substantial change in the executive leadership and the policies of the prior regime' (Marshall & Marshall, 2007). This definition excludes popular uprisings

that often define civil wars and transfers of authority due to direct foreign invasions.⁵ These data include 72 coup attempts from 1960 to 2002.

The primary theory argues that signals sent from the USA should have a significant impact on the probability of a coup attempt, which should vary depending on the costliness of the signal. A valid measure must capture both the orientation of the signal (hostile or supportive) and the costliness of the signal. An ideal measure would directly measure these signals by examining policy documents to calculate the financial, political, and military support from each administration to each state. Even if we had unlimited resources, such a measure would be nearly impossible because many of the signals sent in support of regime change are clandestine. Much of the information we have on US activities towards the Allende government during the 1970s, for example, has only recently been released to the public. There are likely mountains of evidence that have been destroyed or remain classified. Given these limitations, the best way to capture US signals in a large-N manner is to code overt signals as reported in major newspapers from each time period. The effect of covert signals will be captured in this measure if we can safely assume that clandestine signals are positively correlated with overt signals. This seems like a reasonable assumption. The Bush administration was clear in its aversion toward the Chávez government, for example. If the USA is currently sending secret signals to actors in Venezuela, it is likely that the efforts are meant to destabilize, rather than bolster the current regime. This is not to say that the USA *never* sends overt signals of support while secretly attempting to undermine a government (and vice versa). It simply assumes that overt and covert signals will most often be aligned. If not, the contrast between overt and covert signals should work against finding a significant effect.

US signals are captured by creating a measure of dyadic events received by all states in Latin America from 1948 to 1999 using data from Azar's (1980) Conflict and Peace Data Bank (COPDAB, 1948–78), McClelland's (1978) World Events Interaction Survey (WEIS, 1966–92), and King and Lowe's (2003) VRA machine-coded data (1990–99). These datasets code events from a variety of newspapers into nominal categories, which are then weighted by the orientation (supportive/hostile) and intensity of the signal.⁶ We should see a negative and significant coefficient for the *US signals* variable to support H1 and H2.

Two other indicators of US support and hostility are examined to assure the robustness of the results. The first is a dummy variable coded 1 if any level of *militarized dispute*

⁵ See Powell & Thyne (2010) for a discussion of coups versus other forms of anti-regime activity. Results remain consistent when using Powell & Thyne's coup measure as the dependent variable.

⁶ See the online appendix for a technical description of how this measure was constructed.

(MID) is directed from the USA (Ghosn, Palmer & Bremer, 2004). In addition to providing another proxy to capture hostile signals, including this variable in the same model as *US signals* also helps isolate signals from situations in which the USA is playing a direct role in helping overthrow the government. We should expect to see a positive and significant coefficient for this variable to support the first hypothesis. On the supportive side, I examine the level of *US aid* (military and economic per capita) sent from the USA in the form of loans or grants in each country-year (Greenbook, 2007). The variable for aid should be negative and significant to support the second hypothesis.⁷

Three sets of control variables are included to assure that the factors identified in Table I are held constant, which allows us to focus on the impact of US signals. We begin with coup-proofing strategies of the government (x-axis). We might expect people in democratic societies to be more likely to address grievances through institutions or elections than extra-constitutional measures, which should dampen the likelihood that a group could stage a successful coup. This expectation is tested with a dummy variable for *democracies* coded 1 for countries receiving a Polity IV score greater than +5 (Marshall & Jaggers, 2000). Next, *military regime* is a dummy variable coded 1 for military or combined military–civilian regimes, and 0 for civilian regimes (Belkin and Schofer, 2003). We might expect military regimes to be more susceptible to coups because they lack the legitimacy and popular support of democratically elected regimes, and they may be internally weak compared to other regime types (Geddes, 1999). Third, governments may take direct measures to alter the structure of the military when they expect a high likelihood of a coup attempt. Belkin & Schofer (2005: 155) provide an excellent discussion of this issue, which they refer to as *counterbalancing*, along with a measure to capture the government's efforts to protect itself by dividing the military and pitting rival armed organizations against one another. We should expect their measure to have a negative effect on the likelihood of coups. Taken together, the first three control variables capture coup-proofing strategies by the government, which is important when we consider potential strategic interactions between the government and the coup-plotters.

⁷ Specimens of these alternative measures should already be captured in the primary signaling variable. It is often newsworthy when the USA guarantees loans for a country, for example, which means that the initial announcement should be picked up in both the signal and US aid measure. I am unconcerned that this will confound the empirical model for three reasons. First, the signaling variable will rarely capture mundane continuation of existing policy, which will be captured in the alternative measures. Second, the bivariate correlations between the three measures for US policy have low and insignificant correlations. Third, the results remain consistent when the US signals measure is recoded to drop events that would likely be captured with either the MID or aid variables.

The second set of control variables captures the anticipated benefits of staging a coup (y-axis). Previous quantitative studies have found poverty to be an important cause of coups (Finer, 1962; Londregan & Poole, 1990), so I include a variable for *GDP per capita* (logged) in the model (Gleditsch, 2002). The change in the economy over time might also have an important impact on the likelihood of coups apart from the level of overall wealth. A drastic drop in state wealth might trigger a coup, for instance, while growing wealth should engender more support for the current regime. Thus, I include a variable for the percentage *change in GDP/capita* from year to year.

The final set of control variables are meant to isolate coups from other forms of anti-regime activity. *Instability* is an annual count of strikes, riots, assassinations, revolutionary action, purges, antigovernment protests, and acts of guerrilla warfare (Banks, 2001). *Civil war* is a dummy variable accounting for higher levels of protest activity, coded 1 during periods in which the state is experiencing a civil conflict (Fearon and Laitin, 2003). Beyond isolating the dependent variable, we should expect coups to become more likely when these two variables take on positive values because coup plotters should predict a higher likelihood of success when people show discontent with the government.

The dependent variable is coded 1 for each country-month in which the state experienced at least 1 coup attempt. I use logistic regression to test the hypotheses robust standard errors clustered by country. Also included is a variable counting the number of months without a coup, with natural cubic splines to control for temporal dependence (Beck, Katz & Tucker, 1998).⁸ Finally, I use a one-period lag of each of the independent variables to deal with endogeneity.

Preliminary tests

The conventional wisdom suggests that signals sent from the USA should significantly affect the probability of a coup attempt. This expectation is tested in Table II. The first model examines the *US signals* measure constructed from the events datasets. As expected, this variable is negative and significant, which suggests that the likelihood of a coup attempt decreases as signals from the USA become more supportive, and increases as they become more hostile. Because this measure captures both the orientation and costliness of the signals, the findings provide initial support for both H1 and H2.

A potential critique of this preliminary finding is that the signaling variable could have a negative coefficient because the results are being driven by either positive or negative events alone, or by events at the extreme ends of the scale. We become more confident in the results by examining the results for *US MID*s and *US aid*. The variable for *US MID*s is

⁸ Peace years and splines are removed from the Table II to save space.

Table II. Logistic regression of coup attempts in Latin America, 1960–99

	(1)	(2)	(3)
US signals	−0.277* (0.126)		
Positive signals		−0.167 (0.102)	
Negative signals			−0.363** (0.123)
US aid/capita	−0.604** (0.252)	−0.590* (0.258)	−0.594** (0.254)
US MIDs	0.839* (0.449)	0.871* (0.491)	0.792* (0.449)
Democracy	−0.029 (0.649)	−0.010 (0.678)	−0.046 (0.634)
Military regime	1.837*** (0.483)	1.839*** (0.504)	1.810*** (0.474)
Instability	0.027* (0.012)	0.027* (0.012)	0.026* (0.011)
Civil war	−0.636 (1.004)	−0.599 (1.014)	−0.680 (1.015)
GDP/capita	−0.939 (0.727)	−0.930 (0.762)	−0.933 (0.717)
Ch. GDP/capita	−1.506 (1.687)	−1.416 (1.764)	−1.488 (1.704)
Constant	−1.600 (2.027)	−1.604 (2.152)	−1.702 (2.005)
Observations	7125	7125	7125
Wald Chi2	424.0***	424.0***	335.63***

Robust standard errors in parentheses. *** $p < .001$; ** $p < .01$; * $p < .05$ (one-tailed).

consistently positive and significant, which lends further support to H1. We likewise see evidence supporting the pacifying effect of positive signals with consistently negative coefficients for *US aid/capita*. These results are examined more thoroughly in Models 2 and 3. In Model 2, I isolate the potential coup-proofing effect for supportive signals by recoding the *US signals* variable from Model 1 to equal 0 for both neutral and hostile signals (*positive signals*). Contrary to the second hypothesis, this variable yields a marginally insignificant coefficient ($p < .052$). This casts some doubt on the pacifying effect of supportive signals on the likelihood of coup attempts. In Model 3, I reverse the coding by recoding neutral and supportive signals as 0 to isolate the negative signals. This variable yields the expected result: a negative and significant coefficient. Altogether, these analyses suggest strong support for the first hypothesis and somewhat less support for the second hypothesis.

Moving to the control variables, we generally see results supporting the theoretical expectations. The variable for *democracy* is consistently negative as expected, though it fails to reach statistical significance in any of the models. In

contrast, we see the expected positive and significant sign for *military regimes*. Taken together, these results suggest that democracy itself carries little weight, while the qualitative characteristics of the regime and its means of coming to power have important impacts on the legitimacy of the government and its related risk of being challenged by a coup.⁹

Next, we see that both higher aggregate levels of wealth and the change in wealth over time are found to have the expected negative effect on the likelihood of coup attempts. However, none of the coefficients attain statistical significance in the models. This contrasts with findings from models predicting the onset of civil conflict, which consistently show strong negative findings for similar variables (e.g. Fearon & Laitin, 2003; Collier & Hoeffler, 2004). One potential explanation for these findings was alluded to earlier: general levels of wealth in the population should have less of an effect on coup attempts because the coup plotters come from the military or the elite. In contrast, civil wars generally arise from a segment of the general population. Though drawing on civil war theories presented several fruitful findings, the findings for these variables demonstrates that coup researchers must think beyond civil war models to predict the onset of coup attempts.

The final set of control variables, *instability* and *civil war*, isolate coups from other forms of anti-regime activity. As expected, the instability measure is positive and significant across all models, suggesting that coup plotters foresee a greater likelihood of staging a successful coup when the people show displeasure with the government. We see consistently negative and insignificant coefficients for the civil war variable. This result is unsurprising because coups and civil conflicts have a related goal: overthrow of the government. While civil conflicts may provide greater opportunity for a successful coup, coup plotters should also be less likely to risk the punishment from a failed coup if the people are already challenging the government violently. The military might also be called into action to defeat the insurgency, rallying behind their leader to protect their jobs.

Beyond statistical significance, we can gauge the impact of the independent variables by calculating each variable's marginal effect on the dependent variable. The *Clarify* program was used to estimate predicted values for the significant variables in Table II (King, Tomz & Wittenberg, 2000; Tomz, Wittenberg & King, 2003). The results for these calculations are presented in Figure 1. This figure displays how we should expect the likelihood of coup attempts to vary when each variable is allowed to vary from

⁹ Belkin & Schofer's (2005) 'counterbalancing' measure is limited temporally (1970 to 1986), which severely reduces the number of potential observations for analyses. Including this measure does not alter the substantive effects of the primary independent variables, so the measure is excluded in Table II. See the online appendix for results including Belkin & Schofer's measure.

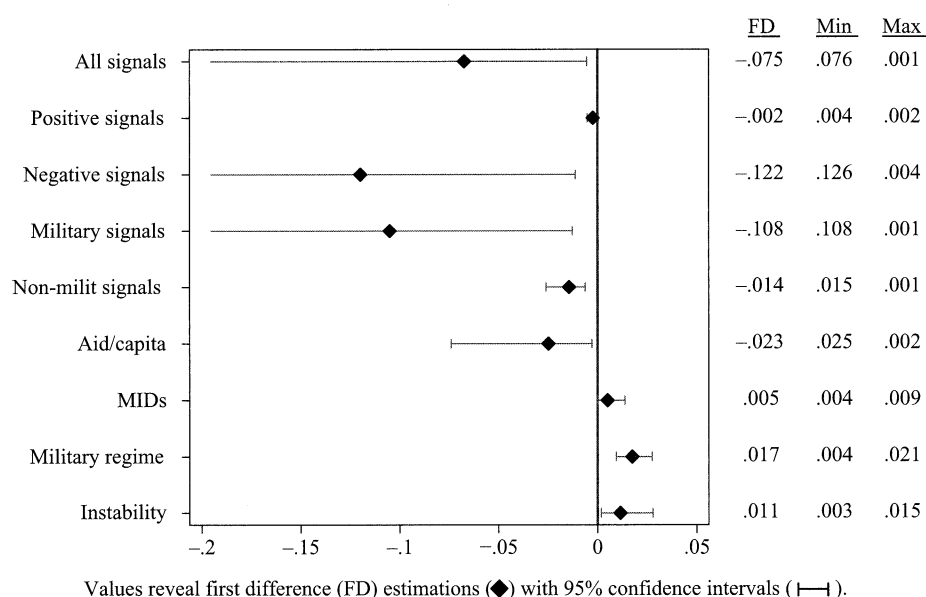


Figure 1. US Signals and coup attempts in Latin America: Substantive effects

its minimum to maximum values while holding all other variables constant (means and modes).

We first see that the variables for *US signals* provide substantial leverage in our explanation of coup attempts. When US signals are as costly and hostile as possible, the likelihood of a state having at least one coup attempt is .076. This value drops to .001 when the signals are as costly and supportive as possible. Thus, we can conclude not only that the effect of US signals on the likelihood of attempted coups is significant, but also that the effect is also important in substantive terms. Regarding supportive signals, we see a miniscule effect for the *positive signals* measure constructed from the events data (.004 to .002), and a much larger effect when considering US aid inflows (.025 to .002). This suggests that supportive US signals have a stabilizing effect only when they are costly, which provides modified support for H2. We come to the opposite conclusion when considering hostile signals: the entire continuum of signals constructed from the events data has a strong impact on the likelihood of a coup (.126 to .004), while the more costly MID measure has a much smaller impact (.004 to .009). The most likely explanation for this finding is that cheap signals often precede the more costly measures. The impact of US hostilities, therefore, is felt prior to actual troop movements. I return to a discussion of the timing of signals in the following section.

Overall, these preliminary analyses provide strong empirical support for the conventional wisdom: hostile US signals increase the likelihood of coup attempts, while supportive signals have a stabilizing effect (at least when they are costly). In substantive terms, the effect of US signals is quite large vis-à-vis intrastate factors, such as military regimes and instability. These findings are important because they show that the

long-held suppositions from the qualitative literature indeed hold across time and space. While this is a useful first step, we can add substantially more value to the literature by considering anomalies found within the analyses.

Beyond the conventional wisdom

Though each model in Table II produces a fairly strong fit overall, many anomalies remain within the data.¹⁰ These include 21 coups that followed a supportive signal from the USA and 400 non-coups following hostile signals. There are two primary ways to help explain these anomalies. The first is to think more carefully about the assumptions made in the theoretical argument. The second is to examine the data more closely to reveal unexpected trends.

Beginning with theoretical assumptions, we recall that the previous argument began by suggesting that the historical dominance of the USA in Latin America makes signals relevant to all states. This may be an unsafe assumption for a variety of reasons. Most notably, Latin American states vary considerably in their economic dependence on the USA. Nicaragua and Haiti receive over 30 times as much aid as Brazil and Venezuela, for instance (Greenbook, 2007). These disparities are likely to have an important impact on how US signals impact the decision to stage a coup. Signals in support of the current regime should have a stronger coup-proofing effect as economic dependence increases, because plotters should be worried that the

¹⁰ Regarding model fit, we first note chi-square values that are significant at the < .001 level. A more valuable measure of model fit for rare dependent variables is found by examining the area beneath the ROC (receiver operating characteristic) curve. Each model in Table II receives a ROC value greater than .80, which indicates a 'good' fit overall (Tape, 2008).

USA would sever ties as punishment for an unconstitutional turnover of power. For example, Honduras remained remarkably stable during the 1980s in spite of conditions that would otherwise favor a coup. We can attribute this stability (in part) to the combination of supportive US signals and large amounts of US aid. Likewise, hostile signals should have an increasingly destabilizing effect as economic dependence increases because the coup plotters would perceive continued (if not heightened) future support from the USA if they were to overthrow the regime that has drawn the ire of the USA. Officers with close ties to the USA took control of Peru following an electoral crisis in July 1962, for example. The leading officers immediately called on the USA to continue sending 'the promised aid ... to combat Communist infiltration' (Onis, 1962). Subsequent reports indicate that they fully expected this support to continue as they attempted to establish their new government (Szulc, 1962). These examples suggest that

H3: We should expect the effect of signals sent from the USA on the probability of a coup to increase as economic dependence on the USA increases.

Second, the primary theoretical argument implicitly assumed that US governments have stable ideological preferences over time, which may be problematic when we consider the regular turnover of executive power. New leaders commonly have preferences that diverge from the previous administration. In fact, the new leader may take office *because* of the divergent preferences. We might expect President Bush's hostile rhetoric towards Hugo Chavez to have played a diminishing role in the minds of coup plotters as his term in office expired, for instance, because they should be less certain of future support given President Barack Obama's more amiable campaign rhetoric (*Orlando Sentinel*, 2008). In contrast, signals sent early in a US president's administration should carry greater weight because they allow coup plotters to more easily estimate the long-term likelihood of support or hostilities from the USA if a coup were attempted. Thus,

H4: We should expect the effect of signals sent from the USA on the probability of a coup to decrease as the US president nears an election.

Electoral cycles in Latin America perhaps point to a related problematic assumption. The primary argument implicitly assumed that coups are the primary way that disgruntled coup plotters have to overthrow a president. Because attempting a coup is extremely risky, however, coup plotters should become decreasingly likely to attempt a coup as elections near, because they might expect incumbent executives to be removed from power via constitutional means. Coup plotters should be apt to prefer a coup attempt early in a president's term rather than await a subsequent election. For example, Ecuadorian President Jamil Mahuad's failure to improve the Ecuadorian economy during the first year of his administration (1998–99)

elicited massive protests from the indigenous population. Rather than wait three years for the next scheduled elections, the military took control of Ecuador in spite of massive protests from the USA and much of the international community (BBC, 2000). More generally,

H5: We should expect the effect of signals sent from the USA on the probability of a coup to decrease as a Latin American president nears an election.

A closer look at the empirical analyses reveals two additional anomalies that deserve consideration. First, in Figure 2 we see the duration following a hostile signal to a coup attempt. While 35% of coups happen immediately following a hostile signal (those explained by the model), the majority of coups come some time after the initial hostile signal. This suggests that many coups come after coup plotters have had several months to digest the new information. One way to explain this apparent anomaly is to consider how the consistency of signals over time might impact a coup plotter's decision. While a brash statement condemning the government indeed indicates displeasure, a coup plotter is unlikely to make the risky decision to overthrow the government based on a single event. Instead, coup plotters may consider the consistency of signals over time to better understand the US government's true level of support for the ruling government. The overthrow of Árbenz in Guatemala mentioned earlier, for example, came after almost two years of consistently negative signals from the USA. Intermittent support of a government is likewise unlikely to help an unstable regime ward off coup attempts. While the USA showed support for Aristide immediately preceding his ousting in January 1991, four months earlier Vice President Quayle had sent a hostile signal warning of future economic repercussions if the government failed to hold free and fair elections (Shenon, 1990). This inconsistency showed that Aristide could not automatically expect support in the event of a coup attempt. These examples suggest that

H6: We should expect the effect of signals sent from the USA on the probability of a coup attempt to increase as the consistency of the signals increases.

Finally, we see many signals within the data that seem to be completely ignored by coup plotters. One way to help explain these anomalies is to further consider the qualitative characteristics of signals. Most notably, it may sometimes be necessary for the USA to send military signals in order to credibly indicate support or hostilities towards a government. Military signals (e.g. threats of force or the seizure of possessions) are likely to be more credible than diplomatic signals (e.g. breaking of diplomatic relations or issuing a formal complaint) because they risk US lives. The international embargo on Haitian goods following the successful overthrow of Aristide's government in 1991, for example, did little to impact the ruling regime's grip on power. Instead, it took a military action to

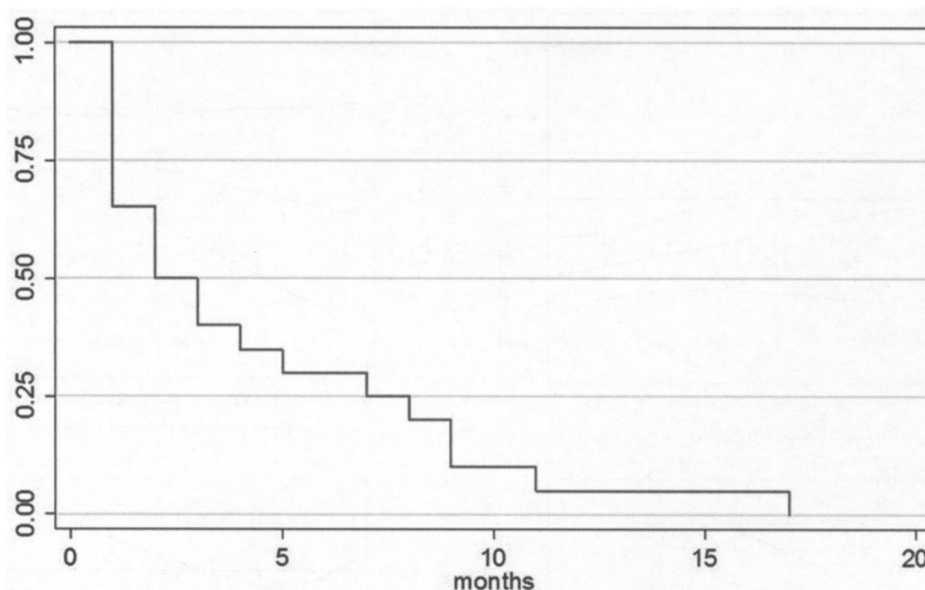


Figure 2. Time to coups following a hostile signal (Kaplan-Meier survival estimate)

replace Aristide. Likewise, throughout 1989 the USA sent a series of hostile non-military signals to Noriega's government in Panama. It took overt US military maneuvers and military support for the coup plotters, however, to convince the military that the time was ripe to overthrow the government (Pears, 1989; Rosenthal, 1989). These examples suggest that

H7: We should expect military signals sent from the USA to Latin American states to have a larger impact on the likelihood of a coup than non-military signals.

Secondary analyses

The preceding discussion suggests that the effect of US signals on coup attempts may depend on several factors, including the receiving state's level of economic dependence with the USA (H3), electoral cycles within the USA (H4) and within Latin America (H5), the consistency of signals over time (H6), and the militarization of the signal (H7). Brambor, Clark & Golder (2006) explain that interactive terms are the best way to test conditional hypotheses where the effect of one variable *X* (*US signals*) depends on the value of one or more other variables *Z* (those indicated by the hypotheses). While the coefficients on the interactive terms provide some information, the authors suggest that interactive effects are best analyzed by plotting the marginal effect of primary independent variables versus the conditional variables while holding control variables constant. I follow this advice by presenting the primary findings for the conditional hypotheses in Figure 3 using Boehmke's (2006) *grinter* data utility.¹¹

¹¹ Control variables from Table II are held at their mean (continuous) and mode (dichotomous). Full tables used to test H3–H7 can be found in the online appendix.

We begin with the third hypothesis, which predicts that the effect of US signals should intensify as US aid flows increase. This is examined by interacting *US signals* with *US aid/capita* from Table II. As shown in Figure 3a, the effect of *US signals* on the likelihood of coup attempts indeed becomes increasingly negative as *US aid* moves from its minimum to maximum values. However, this effect is only significant once the upper confidence interval drops below the horizontal zero line. Thus, we can safely conclude that aid dependence heightens the effect of US signals on the likelihood of a coup attempt only when aid flows are greater than around \$5.60 per person (.75 logged). The kernel density plot of US aid is plotted behind the marginal effect line to better understand how much of the data this includes. As we can see, the majority of the data (67%) fall within the area of significance. We can therefore conclude support for the third hypothesis for the upper two-thirds of the data.

The fourth hypothesis predicts that signals should matter most when US presidents first enter office, and should diminish as they come nearer to facing either re-election or the end of their term.¹² This expectation is examined by interacting US signals with a variable counting the number of months since the executive took office. In Figure 3b, we see that the marginal effects of US signals indeed diminish as elections approach, which provides support for H4. The confidence

¹² These analyses do not differentiate between situations where an incumbent faces re-election versus those where an incumbent is forced to leave office following his second term. Recoding the variable to continuously count the number of months since the executive's initial election made little difference in the results. This is unsurprising given that an executive's preferences are apt to be mimicked by the same-party candidate when the current president is unable to run for a third term, which sets up an 'incumbent' versus 'challenger' debate near the end of every electoral cycle.

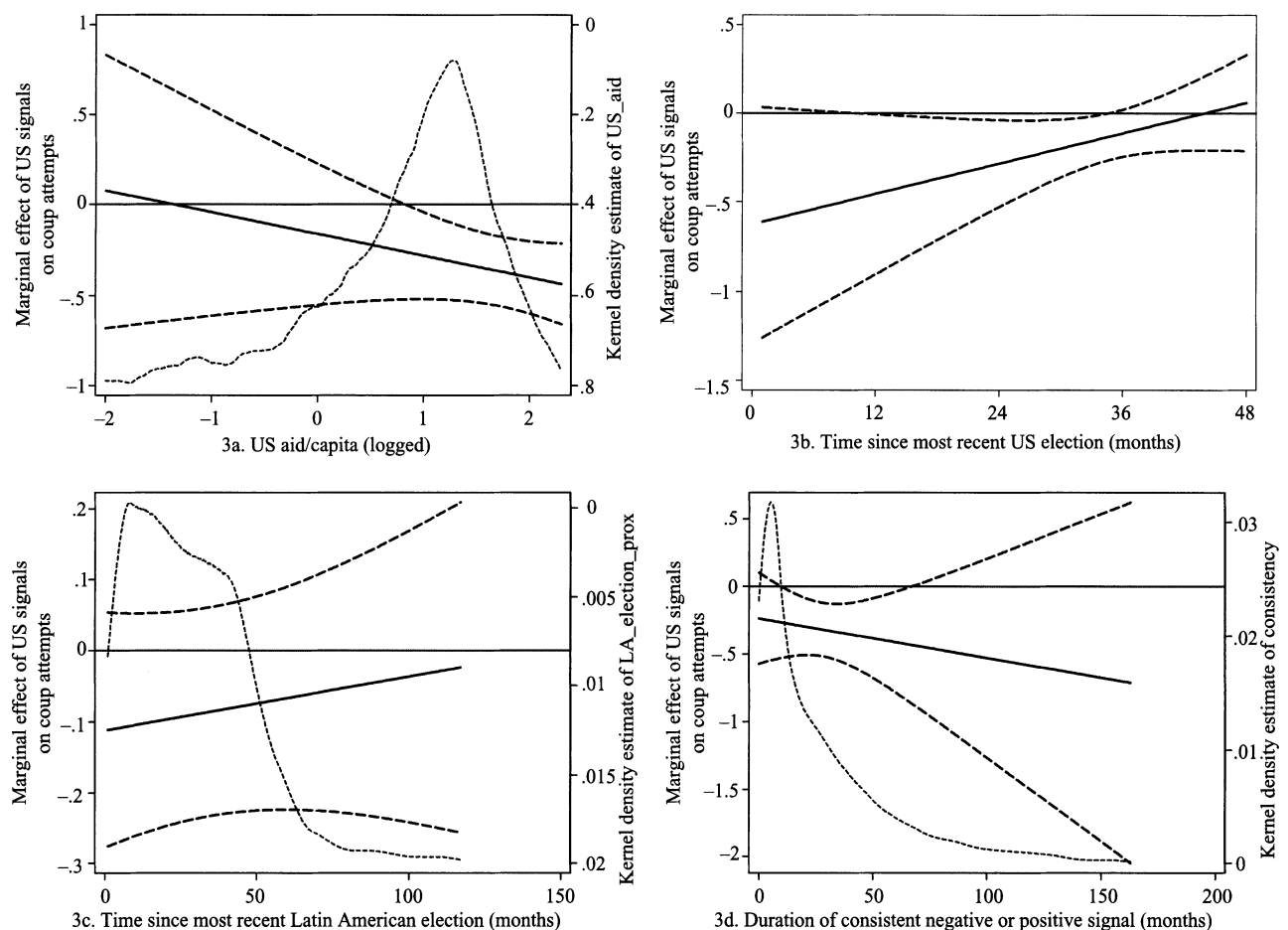


Figure 3. Effect of US signals conditioned on aid, elections, and consistency

intervals, however, reveal that this expectation is significant only during the president's second and third years in office. This yields two interesting propositions. First, it takes a year for a newly elected president to develop the necessary credibility for his signals to be taken seriously. Second, it indicates that an executive's 'lame duck' period begins a year before he faces new elections or his second term expires.

We should expect similar findings when considering electoral cycles in Latin American states. To examine this, I again interact the *US signals* variable with a measure counting the number of months between elections, beginning with the first democratic elections as defined by the Center on Democratic Performance's Election Results Archive (2008). In Figure 3c, we see that the marginal effect of US signals indeed diminishes as presidents in Latin America move beyond their most recent election. However, the confidence intervals reveal that this effect is insignificant throughout the measure, which yields no support for the fifth hypothesis. One potential explanation for this finding is that coup plotters may feel insecure about the future likelihood of free and fair elections due to (1) the nascent nature of democracies in Latin America and (2) histories of presidents rigging elections to avoid the will of the people. Given these factors, coup plotters may be apt to ignore elections as a potential mechanism for

removing a sitting executive, preferring instead to launch a coup when the time is ripe.

The final conditional hypothesis suggests that the effect of US signals should intensify as they become more consistent over time. This expectation is tested by interacting the measure for *US signals* with a variable counting the number of consecutive months that the signal remains consistently hostile or supportive. As we can see in Figure 3d, the general expectation is supported. However, the marginal effect of US signals on coup attempts is significant only when the USA has showed consistent signals for at least 10 months. The significant effect ends when the USA has been consistent for greater than 63 months, which represents around 52% of the data. While the 10-month threshold is consistent with theoretical expectations, it is somewhat puzzling that the effect dies off. One potential explanation for this finding is that a long, consistent pattern of signals allows the government to easily predict US signals in the future and adjust today's positions accordingly. The consistent pattern of hostile signals sent to Cuba over the last several decades, for instance, allowed Castro to expect that the USA would support an attempted coup. Knowing this, he was able to divide his military, pay off leaders, and punish potential dissidents to prevent challenges to his power.

The final hypothesis predicts that military signals should have a greater impact on the likelihood of coups than non-military signals. Fortunately, the WEIS and VRA datasets include information for each event categorized into nominal categories that are compatible across both datasets.¹³ To test whether military events are stronger than non-military events, I split the *US signals* variable into two new variables. *Military signals* is recoded to equal 0 for all signals that do not explicitly mention the military, while *non-military signals* equals 0 for all signals that do mention the military. We should expect the *military signals* variable to have a larger substantive impact on the likelihood of a coup attempt than *non-military signals* to support the third hypothesis. For ease of comparison, the effects of these variables were added to Figure 1 from the earlier analyses. While both variables are significant, we see a much larger effect for *military signals*. When military signals are as hostile as possible, the likelihood of a state having a coup is .108. This drops to .015 when considering extremely hostile non-military signals.

Implications for research and policy

The argument and empirical findings presented in this article have important implications for both researchers and policy-makers. Comparativists generally consider a role for external actors on the process of democratic transitions and democratic consolidation, for example, but few provide explicit tests of these factors. This study extends the theoretical work on this subject and provides clear empirical evidence that external actors indeed have an important influence on an important part of these processes. International relations (IR) scholars are used to examining foreign policy decisions; however, this article considers the effect that these decisions have on the internal stability of other states, which is often disregarded in the IR literature. This study also makes an important empirical contribution to the IR literature. While most scholars examine the impact of high-level (costly) foreign policy signals (e.g. trade, sanctions, and militarized disputes), this article considers both these signals and less costly signals that are captured in the events datasets (e.g. verbal rhetoric and other seemingly mundane diplomatic maneuvers). The less costly signals are found to be important for the likelihood of coup attempts even when controlling for more costly measures, which suggests that future researchers should consider the entire range of the cheap/costly continuum to help capture variations in the credibility of signals.

While the reader should keep in mind that the empirical model produces very low predicted probabilities overall, which is common when analyzing rare events, we can cull several implications for policymakers in both Latin America and the USA from the primary empirical tests. For presidents in Latin

America, this study has shown the importance of avoiding hostile exchanges with the USA. Venezuelan President Chavez's strong opposition to Bush's war on terror may be popular with the majority of the voters, for example, although recent US efforts to undermine Chavez's leadership will likely provide future evidence that this was an unwise move for the leader. Moves to garner US support, such as El Salvador's support of US-led efforts in Iraq, are more likely to help ensure the stability of President Saca's government. Regarding US foreign policy, leaders should expect their signals of support for current governments in Latin America to have a marginal impact in preventing coups. Remaining neutral or ignoring these states is likely the best policy to help ensure their continued stability. This advice may be particularly true when we consider the general unpopularity of US leaders internationally. Though their purpose may be to support a current government, statements of support or visits from high-ranking US officials may do more to cause a backlash against the government than help solidify its power. On the hostile side, these results show that even seemingly innocuous hostile signals, such as statements of condemnation, have important implications for the stability of foreign governments. A responsible foreign policy should recognize the potency of all signals for generating instability in other states.

The more innovative discussion and empirical analyses reveal more refined policy implications. First, signals should have the largest impact as states become heavily dependent upon US assistance. For governments in Latin America, this highlights the importance of developing a strong economy and military with as little foreign assistance as possible. For the US government, this finding provides additional evidence that aid provides the USA with long-term leverage over other states. Second, the focus on electoral cycles in the USA suggests that presidents have a brief window of opportunity during the middle of their term for promoting stability within favored states, or instability if regime change is wanted. Foreign policy agendas should be most effective after the executive has had time to establish credibility, but before he is seen as a lame duck. Third, US presidents should not expect their signals to necessarily have an immediate impact on coup risks. Rather, a consistent policy is necessary to establish credibility in the signal. Once the policy has been consistently in place for a long period of time, however, the signal begins to have a meaningless impact on the target state's stability. This finding reinforces calls to change US policies towards Cuba, for example. Finally, the focus on military versus non-military signals suggests that coup plotters in Latin America pay particularly close attention to military signals versus non-military signals. Therefore, if the USA wants to see policy change within the current regime, it should avoid sending military signals. If the USA wants to see a full regime change, military signals are the best policy option.

Before concluding, a note should also be made about the limitations of this study and potential avenues for further discussion. First, while the theoretical framework was

¹³ The COPDAB dataset does not code events in a similar typology, so the models testing H7 are run on the WEIS and VRA datasets alone (1966–99).

presented in general terms, the decision to focus exclusively on the Americas in the empirical analyses limits the extent to which we can generalize the findings outside the region. Other global powers, such as the Soviet Union, have likely played an equally proactive role in attempting to (de)stabilize foreign governments. It is also possible that the qualitative literature used to build the theory is unique to Latin America. An analysis of case studies on coups in Africa, for instance, might uncover different mechanisms at work, or find that external actors play a very minor role in the decisions of coup plotters. One might also examine neighboring states, other global powers, or international organizations as potential signalers. Second, though the theory and tests push beyond the conventional wisdom, there are many other factors that might provide interesting conclusions. Are signals that are meant to address economic conditions more or less powerful in affecting the likelihood of a coup attempt? How might signals affect democratic transitions or the process of democratic consolidation? While these and other questions remain, at the very least this study provides an empirically supported theoretical framework to pursue future studies and a discussion that extends well beyond the conventional wisdom on this subject.

Replication data

Replication data and appendix available at <http://www.prio.no/jpr/datasets> and <http://www.uky.edu/~clthyn2>.

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