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Abstract

Why do pro-democracy protests emerge in some countries at certain periods of time and not others? Pro-democracy protests, I argue, are more likely to arise when the economy is not performing well and people blame the autocratic nature of their regime for the economy, than when the economy is performing well, or when people do not blame the nature of their regime for the poor state of the economy. People are more likely to associate the economy with the nature of their regime, I further argue, in election periods, particularly when people are unable to remove the incumbent government from power through elections. My argument is supported by a statistical analysis of pro-democracy protests in 158 countries between 2006 and 2011, showing that not only is the economy an important factor explaining the emergence of pro-democracy protests, but that other factors commonly thought to affect these protests, including technologies like cell phones and the Internet, are not.

Keywords

democracy, protests, and the economy

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Popular protests have challenged autocratic regimes across the globe. In the 1970s and 1980s, pro-democracy protests emerged in force in Latin America and the Caribbean where they have remained vigilant ever since against attempts by some elected leaders in the region to erode democracy. In the 1980s, they toppled autocratic states in East Asia—in South Korea, Taiwan, and the Philippines, and prompted democratic reforms in sub-Saharan Africa in the 1990s. The following decade, pro-democracy protests thwarted attempts to ignore the outcome of democratic elections in East Central Europe, and even overpowered autocratic regimes at the beginning of this decade in the Middle East and North Africa, where only isolated protests had previously occurred.

Why do pro-democracy protests arise in some countries at certain periods of time and not others? The answer to this question is not immediately apparent. According to the analysis herein, pro-democracy protests—namely, mass public demonstrations in which the participants demand countries install or uphold open and competitive elections—are not significantly more likely to occur when the threat to democracy is greater—that is, when countries are the most authoritarian, when democracy is on the decline, or when countries have experienced a long history of undemocratic rule. Pro-democracy protests are also not more likely to occur when conditions commonly thought to foster a democratic political culture are present—that is, when countries are wealthier and have more educated and civic-minded populations—or, when the potential to organize protests is greater because countries are more urbanized and have better access to technologies, like cell phones and the Internet.

Existing explanations of pro-democracy protests have emphasized mobilization issues. Protests pose major risks to the participants. Not only can people lose their jobs by joining these protests, but they can also be denied access to schools, fined, jailed, beaten, and even killed. A number of factors are thought to help overcome these challenges, however, including fraudulent elections that serve as a focal point around which to organize protests (Tucker, 2007); electoral monitors and the media, which publicize the fraud committed during elections (Hyde & Marinov, 2012a; McFaul, 2007); strong opposition candidates that help coordinate action against regimes (Beaulieu, 2008); as well as the occurrence of pro-democracy protests in neighboring states, which help to inspire protests in other states (Beissinger, 2007; Bunce & Wolchik, 2006).

In this article, I take a step back from the issue of mobilization, which takes the demand for democracy as given, and try to unpack the desire for free and fair elections in the first place. In brief, I argue that pro-democracy protests are more likely to occur when the economy is doing poorly, and when people blame the autocratic nature of their regime for the poor state of

the economy, than when the economy is performing well, or when people do not blame the nature of their regime for the state of the economy. When the economy is doing well, people are less likely to see a need for democracy because their economic interests are met without it, and more likely to accept and even welcome certain curtailments of democracy to keep the incumbent government in office and bestowed with enough power to keep the economy on track. People, I further argue, are more likely to associate the state of the economy with the lack of democracy in their country in election periods, particularly when people are unable to remove the incumbent government from power through elections.

Using a statistical analysis of 158 countries between 2006 and 2011, I find that both subjective and objective indicators of the economy are associated with the likelihood of pro-democracy protests occurring in countries even when the level of democracy and the potential to mobilize protests are controlled for in the analysis. In particular, I find that pro-democracy protests are significantly more likely to occur when inflation is high and when growth, employment, and income are low, and when people are dissatisfied with their country's economic conditions as well as their own standard of living. The effects are greatest in election years and when the public cannot remove the incumbent government from office through elections. These findings help explain anomalous cases of high-income authoritarian states, like Singapore, where there is little or no mass mobilization for democracy, as well as low-income countries, like Haiti, where there is a lot. They also help explain the recent proliferation of pro-democracy protests around the world, which have taken place in the presence of a downturn in the global economy.

Democracy: Which Way Do the Economic Winds Blow?

The democratization literature has focused primarily on the overall level of economic development in countries, concluding in general that higher levels of economic development are associated with democratization (Acemoglu & Robinson, 2005; Boix, 2003; Lipset, 1959; Przeworski & Limongi, 1997). However, a number of scholars have also debated the effect of economic crises on democratization. Some scholars, such as Haggard and Kaufman (1995) and Acemoglu and Robinson (2005), argue that economic crises lead to democratization. Haggard and Kaufman identify three ways in which crises provoke transitions: they undermine the confidence of the business elite in the ability of governments to manage crises effectively, causing these elites to align with moderates in the opposition; they prompt mass protests by

providing the opposition with an opportunity to link the economic grievances of the lower and middle classes to the exclusionary nature of the regime; and they deprive regimes of the resources needed to buy off the support of the military. Acemoglu and Robinson (2005) argue, meanwhile, that crises precipitate transitions by helping the lower classes overcome collective action problems associated with mobilizing opposition to the regime, presumably by weakening the military capacity of states to repress protests.

Some scholars, though, are more skeptical about the strength of this relationship. Geddes and Bermeo argue that economic crises do not necessarily cause authoritarian regimes to collapse, but contribute to their downfall by exacerbating pre-existing weaknesses in regimes (Bermeo, 2000; Geddes, 1999). Bermeo argues that ultimately whether democratization results from crises depends on the presence of a viable alternative to the regime, while Geddes suggests that it depends on the type of authoritarian regime in the country, with military regimes being less stable than single-party regimes. Magaloni (2008, p. 72), who also contends that economic crises do not necessarily weaken autocratic regimes, claims that whether they do or not depends on the regime's past economic performance, its history of delivering on its promises, and, like Bermeo, on the presence of a viable alternative to the regime.

Przeworski, et al. (2000) go one step further than these scholars. They conclude, on finding statistically that negative economic growth is not significantly associated with the downfall of authoritarian regimes between 1950 and 2000, that "economic circumstances have little to do with the deaths of dictatorships" (Przeworski et al., 2000, p. 117). Although Preworski, et al. find no support for an effect of economic crises on democracy, Gasiorowski (1995) finds some support for it. Gasiorowski finds that inflation rates inhibited democratic transitions in the 1950s and 1960s, but facilitated them in the late 1980s, while economic growth was unrelated to transitions in both periods. Brückner and Ciccone (2011), in contrast, find strong evidence that economic crises are linked to democratic transitions. Using negative rainfall shocks as a proxy for economic crises, the authors find that droughts are significantly associated with democratization in sub-Saharan Africa (1980-2004).

My goal in this project is different from these studies. In this study, I seek to explain the demand for democracy, not the supply of it. That is, my goal is to unpack the logic of why economic downturns precipitate pro-democracy protests, not how governments choose to respond to them. The economy can have divergent effects on these two phenomena, with economic downturns making the demand for democracy higher, but not necessarily the supply of it. My argument pivots on the same axis as the economic voting literature,

which posits that electoral support for the incumbent government depends on the state of the economy and the government's handling of it (Lewis-Beck, 1986; G. B. Powell & Whitten, 1993). Since voting is not a very effective means of ousting governments from office when elections are not completely free and fair, I argue that people turn to protests (p. 5) to achieve the same ends as they turn to voting in mature democracies. Unlike in robust democracies, in weakly democratic states and authoritarian regimes, the goal of these protests is about more than just ousting governments from power, but about transforming regimes entirely.

My argument is not unique in identifying economic grievances as the basis of collective action. Other scholars have linked these grievances to a host of different behaviors, including secession (Hechter, 1999), civil war (Collier & Hoeffler, 1998), rebellion/revolution (Goldstone, 1993; Popkin, 1979; Skocpol, 1979), and even everyday acts of resistance (Scott, 1987). My argument is unique, though, in the way in which it relates these grievances to the demand for democracy in particular. I argue that grievances lead to protests, not as a result of a psychological response to either anxiety or frustration as others have claimed about protests in general (Gurr, 1971), but from a rational calculation regarding the type of regime most likely to maximize people's economic welfare. While other scholars have also claimed that grievance-based forms of collective action are based on rational calculations (Goldstone, 1993; Popkin, 1979; Scott, 1987), my argument differs from theirs in explaining why and when these rational calculations lead to pro-democracy protests in particular as opposed to other forms of collective action.

My methodological approach also differs from the existing democratization literature. In this article, I analyze quantitatively the effect of the economy on pro-democracy protests, as opposed to democratization, using both subjective and objective measures of the economy. Most existing studies of the effect of economic downturns on democratization have examined this relationship qualitatively (Bermeo, 2000; Geddes, 1999; Haggard & Kaufman, 1995), while those that have studied it quantitatively have relied exclusively on objective economic indicators with mixed results (Gasiorowski, 1995; Przeworski et al., 2000). I include subjective measures of the economy in the analysis because people living in different countries are likely to have different assessments of how well their country's economy is performing, even when economic conditions are the same, based on their expectations. People's evaluations of the economy are also likely to diverge at least somewhat from objective measures of the economy due to their knowledge of economic issues (Gomez & Wilson, 2001) and the way in which governments and the media frame issues (Anderson & O'Conner, 2000). This is

particularly relevant to the analysis herein because governments are more likely to misconstrue facts about the economy in weakly democratic and authoritarian states than in strong democracies, and to be more effective in this regard because the media is more restricted in the former than in the latter.

The Economics of Pro-Democracy Protests

In brief, I argue that pro-democracy protests are more likely to arise when the economy is performing poorly and when people blame the autocratic nature of their regime for the poor state of their country's economy, than when the economy is performing well or when people do not blame the nature of their regime for the economy. When the economy is performing well, people are less likely to perceive a need for democracy since their economic interests are met without it, and are more likely to accept and to even welcome certain undemocratic practices as necessary to keep incumbent governments in office and empowered to grow the economy further. People are more likely to associate the economy with a lack of democracy in their country, I further argue, in election periods, especially when people are unable to dislodge the incumbent government from power through elections.

When the economy is performing well, and when people credit the government for the state of the economy, people are less likely to be concerned with flaws in their democracy or the lack of it entirely because the economy is of paramount concern to individuals, and because people's economic interests are met when the economy is performing well even if the government is not fully accountable to its people. In other words, although the government is not elected through a fully open and competitive political process, it is acting "as if" it were. Demanding democracy at this juncture could also upset this economic balance. Not surprisingly, the Arab Spring protests bypassed countries, like Qatar, Saudi Arabia, and the United Arab Emirates, where inflation and unemployment rates were much lower and standards of living much higher than in the rest of the region. Although the economy is not the only interest and concern that people have in countries, the economy is chief among them, with numerous public opinion polls showing that people around the world value having a strong economy over a good democracy (see Latinobarómetro, 2009, p. 19; Pew Research Center, 2006).

Democracy is not, moreover, a prerequisite for a healthy economy. In fact, non-democracies can produce economic growth and reduce unemployment, as well arguably, if not better, than robust democracies because the former are not compelled by public pressure to adopt unsound or inefficient economic policies, and tend to have higher physical capital investment and lower public

spending than the latter (Helliwell, 1994). Singapore is a strongly authoritarian state, but has the fastest growing economy in the world with a growth rate of 14.5% in 2010.[1] Similarly, China, where like in Singapore, pro-democracy protests have been anemic in the past decade, experienced a growth rate of about 10% on average over the past decade. Democracies are arguably also more inclined toward inflationary practices (Alesina, Roubini, & Cohen, 1997; Clark, Reichert, Lomas, & Parker, 1998). However, robust democracies tend to have more stable growth rates with more egalitarian outcomes than less democratic countries—the lack of which can set the stage for economic discontent among certain groups of people in countries and for the rise of pro-democracies protests in particular (Rodrick, 2000).

When the economy is performing well, people are also more likely to see restrictions on democracy as necessary, and even desirable, to ensure that the incumbent government remains in power. In a booming economy, incumbents have less of a need to restrict democracy to win elections because they are likely to be popular anyway as a result of the economy. However, even popular governments may restrict elections, or sidestep democracy in other ways, to stay in power, particularly if term limits prevent incumbents from running in elections or if certain electoral rules limit their legislative majority. These actions are clearly unconstitutional if governments violate their countries' legal systems to implement them. Even when they do not, some contend that these reforms are still undemocratic because they limit competition and perpetuate the incumbent government's place in power (Elhauge, 1997).

Colombia's suspension of term limits ahead of the 2006 presidential elections is a case in point. Colombia's Congress approved a constitutional amendment in 2004 to suspend presidential term limits so that President Álvaro Uribe could run for a second term. Uribe was accused at the time of bribing congressmen to push the amendment through Congress. Uribe, who was very popular at the time because he helped stabilize the country's economy and neutralize its drug cartels, won the elections by a landslide, earning almost three times as many votes as his nearest competitor. Not only were the term limits removed by questionable means, but the elections themselves were also not fully open and competitive. The elections, which were part of a long-term downward trend in democracy in Colombia, were marked by irregularities in the voting process, media bias, and unequal funding opportunities for opposition candidates. Yet, the public did not protest the elections or the questionable means by which Uribe had suspended the country's term limits.

When the economy is performing well, people are not only more likely to see curtailments of democracy as necessary to ensure that the incumbent

government remains in power but also to ensure that it has the authority it needs to advance the country's economy further. Governments often claim that certain undemocratic measures are needed to produce growth. These measures can include limiting political opposition, expanding the chief executive's economic authorities at the expense of elected bodies, and cracking down on political and civil rights to produce the stability. Singapore's first prime minister, Lee Kuan Yew, who governed Singapore for three decades, justified not democratizing Singapore on these grounds. Lee claimed that a strong, authoritarian leader was needed to promote reforms, conduct efficient policies unobstructed by special interest groups, and generate high investment levels. Although it is debatable whether all of these measures are actually good for the economy, people are more likely to accept claims to this effect when the economy is performing well.

When the economy is not doing well such curtailments of democracy are not likely to meet with the same response. Riots erupted in the streets when President Mamadou Tandj suspended democracy in Niger in 2009. To expand his presidential powers and remove the country's term limits, Tandj rewrote Niger's constitution, held a referendum on the new constitution, and when the country's national parliament and Constitutional Court declared the referendum unconstitutional, he dissolved the parliament, abolished the Court, and ruled by decree. At the time, Niger was experiencing negative growth and record high inflation arising from high food and energy prices. In the wake of the country's economic crisis, people's dissatisfaction with their standard of living jumped 25 points to 70%, according to the Gallup World Polls (GWP) used herein. Tandj was ousted in a coup d'etat the next year, restoring democracy in the country.

For pro-democracy protests to arise in response to poor economic times, people must not only be dissatisfied with the state of the economy, but they must also blame the lack of democracy in their country for it. In robust democracies, when the economy is doing poorly, people tend to blame the government for the economy since democratic governments generally have significant fiscal and monetary policy-making authorities, and to vote these governments out of office as a result (Lewis-Beck, 1986; G. B. Powell & Whitten, 1993). In weakly democratic states and authoritarian regimes, discontent over the government's handling of the economy is likely to manifest itself not only as dissatisfaction with the government but also as dissatisfaction with the regime because governments are less responsive to the needs of their citizens in these states than they are in robust democracies. That is, when the economy is not performing well, people are likely to attribute the faltering of the economy to the failure of the government to take into account the interests of more than just the select few that it relies on to stay in power.

People are also likely in these states to see democracy as a means of improving the economy because they are less capable of removing poorly performing governments from power through elections in these states than they are in robust democracies.

People are even more likely to make a connection between the state of the economy and the level of democracy in their country in election periods. Most countries today, with a few exceptions, such as China and Qatar, hold national elections. These elections, the literature on competitive authoritarianism suggests, strengthen authoritarian regimes. Authoritarian elections are thought to signal to potential challengers that opposition to the regime is futile when governments win by large margins of victory (Magaloni, 2008; Simpser, 2013). They are also thought to allow authoritarian regimes to distribute patronage to elites in a fair and equitable manner (Blaydes, 2010), and to reveal information about the strength of the opposition through the number of votes that it wins (Cox, 2009; Magaloni, 2008).

Authoritarian elections can be destabilizing, however, because people are more likely to associate the state of the economy with the authoritarian nature of their regime in election periods. Governments generally curry favor with the electorate in these periods by reflecting on their past economic successes and making promises for the future. If the government's reflections are out-of-touch with people's experiences, as they often are in weakly democratic countries and authoritarian states, or if the government's proposals do not sufficiently address the public's economic concerns, people are likely to attribute the poor state of their country's economy, as well as their own economic condition, to the fact that the government does not have to be fully responsive to the electorate to remain in power. Opposition candidates, where they are permitted, are also likely to blame the government and its failure to respond to the needs of the people for the economy.

Pro-democracy protests are especially likely to arise in election periods if people are unable to remove the incumbent government from power through these elections. In authoritarian regimes, voters may be unable to remove the incumbent from power because electoral competition is closed or fraudulent, or because the incumbent government refuses to hand over power to the opposition when it is defeated, as in the case of the Ivory Coast in 2010. If this occurs when the economy is not performing well and when people blame the government for the poor state of the economy, people are likely to see the lack of democracy in their country as a hindrance to defeating the incumbent and, thus, improving the state of the economy. This is even more likely to occur if the opposition provides a compelling alternative economic vision for their country.

Methodology

To estimate the effect of the economy on the probability of pro-democracy protests to occur, I use logistic regression models with robust standard errors clustered by country. To examine the sensitivity of these results to the estimation technique used, I repeated the analysis using rare events logit models. The differences between the two models are negligible. The unit of analysis is the country-year. To control for the general propensity of certain countries to protest, and the possibility that having one protest in a country will affect the likelihood of future protests, I included a variable in the analysis indicating whether or not protests occurred in the previous year. All economic variables are also lagged in the analysis to identify the effect of the economy on pro-democracy protests, not vice versa.[2] In separate models, I also added year and region fixed effects to control for potential diffusion effects (Beissinger, 2007; Bunce & Wolchik, 2006). The results of these models are statistically and substantively the same. All supplementary models, including models using additional controls, different functional forms, alternative estimation techniques, and different cuts of the data, are included in an online appendix available along with the codebook.

Data and Measures

In this analysis, the outcome variable is the occurrence of pro-democracy protests. The explanatory variables include several different subjective and objective measures of the economy. The intervening variables are democracy, elections, and incumbency loss. The main control variables relate to the trajectory of democracy in countries and the ability for people to mobilize on behalf of it. The analysis, defined by the availability of the Global World Polls (GWP), includes 158 countries around the world between 2006 and 2011.

Pro-Democracy Protests (Dependent Variable)

Pro-democracy protests, I define as mass public demonstrations in which the participants demand that their country install or uphold democratic elections. Democracy must be the primary demand of the participants and is defined here in a minimal sense of open and competitive elections in which there are no significant legal or non-legal barriers preventing political parties, candidates, or voters from participating in elections. Pro-democracy protests, thus, include protests in which the participants demand that countries hold democratic elections where elections are not held; that countries make existing

elections more open and competitive, which includes eliminating electoral fraud; and that countries respect the outcome of democratic elections that are held. This definition excludes protests regarding human rights or political and civil rights, which are not directly about the electoral process, but which may be related to a maximal definition of democracy.[3] It also excludes anti-government protests and other types of protests (e.g., anti-corruption or unemployment protests), which oppose the government and/or demand its resignation for reasons unrelated to the openness and competitiveness of elections. To test the robustness of the statistical results, I re-ran the analyses dropping minor protests (defined below), as well as ambiguous cases where it is not clear whether or not the primary goal of the protests was democracy, and protests organized by the opposition where claims of electoral fraud were not substantiated by international electoral observers and, therefore, were potentially contrived. The results are statistically and substantively the same when these cases are excluded from the analysis.

Based on this definition, I code *pro-democracy protests* as 1 if at least one pro-democracy protest occurs in a country in a year, and 0 otherwise.[4] I identified the sample of countries included in the measure based on Gleditsch and Ward's (2008) list of independent states. I measured the size of the protests, coding pro-democracy protests as "minor" if the single largest protest in a year included less than 1,000 participants, and "major" if the single largest protest in a year included at least 1,000 participants. The main analyses presented in the article include all protests—major and minor ones. Between 2006 and 2011, 81 pro-democracy protests occurred in 54 countries. Of these protests, 7% occurred in Eastern Europe, 10% occurred in Latin America and the Caribbean, 37% occurred in Asia, and 46% occurred in Africa. Approximately, one third of the countries that experienced pro-democracy protests in this period experienced protests in more than 1 year. About two thirds of the protests were "major" protests and one third of them were "minor" protests.

The pro-democracy protests were coded based on various sources including serial reports by governmental and non-governmental agencies, such as the U.S. State Department's *Human Rights Reports* (1999-2011), the International Federation for Human Rights' *Steadfast in Protest* reports (2006-2011), Freedom House's *Freedom in the World* reports (2002-2012), and the International Crisis Group's *Crisis Watch Database* (2003-2012), as well as a multitude of news sources, documentary films, videos, and so forth.[5] The codebook identifies the particular sources used to code each protest and provides a short summary of the protests, including information about their demands, tactics, size, date, and duration, as well as the political context surrounding them. These summaries also include information about why each

protest meets the aforementioned coding criteria, why certain prominent examples of protests do not, and why certain cases are ambiguous or borderline.

State of the Economy (Independent Variable)

I evaluate the economic health of countries using both subjective and objective economic indicators. The subjective measures are drawn from the GWP. The GWP is a series of ongoing polls conducted around the world that at present includes 158 countries between 2006 and 2011. The GWP asks a standard set of core questions in each country surveyed, allowing me to test my argument regarding the economy in a large number of states over time. The polls are based on a nationally representative sample of each country's resident population aged 15 and above. Together, Gallup estimates that these polls are representative of 95% of the world's population.

The two subjective measures of the economy taken from these polls are as follows. *Standard of living (D)* (lag) represents the percentage of GWP respondents in a country in a given year who are dissatisfied with their standard of living.[6] *Economic conditions (P)* (lag) represents the percentage of GWP respondents who believe that current economic conditions in their country are not good.[7] This question is only available for the 2006 to 2009 waves of the survey. I expect protests to be more likely to occur the more people are dissatisfied with their standard of living and with economic conditions in their country, and for the effect of the former to be stronger than the effect of the latter because, I anticipate, people are more likely to participate in protests based on their own economic well-being than that of society in general. As expected, the percentage of people who are dissatisfied with their standard of living is higher for protest years (61%) than non-protests years (54%). The percentage of people who report that economic conditions in their country are not good is also higher for protest years (49%) than non-protest years (39%).

I also include a number of objective measures of the economy in the analysis using data from *World Development Indicators* (WDI) *Online*—inflation, employment, growth, and gross domestic product (GDP) per capita. *Inflation* (lag) refers to the rate at which the general level of goods and services in a country is rising and is measured as the annual percentage change in the consumer price index in a year. *Growth* (lag) refers to the annual percentage change in a country's gross domestic product (GDP) per capita at market prices in a year (constant 2,000 USD), while *employmen*t (lag) refers to the percentage of the total labor force 15 years and above that is employed. The analysis is based on employment figures rather than unemployment rates

because the WDI data for the latter are more sparse than for the former. I expect protests to be more likely to occur the higher inflation is and the lower employment and growth are within countries. As expected, the average inflation rate is higher for protest years (7.5%) versus non-protest years (6.2%), while the average growth rate in the data is lower for protest years (2.0%) versus non-protest years (2.2%).[8] The average employment rate is also lower for protest years (58%) versus non-protest years (60%) as expected.

In addition to these three economic indicators, I also include a measure of a country's overall gross domestic product (GDP) per capita in the analysis to show the moderating effects of development on each of the aforementioned economic indicators, and to control for modernization theories, which suggest that protests are more likely to occur in more developed countries (Inglehart & Welzel, 2009; Lipset, 1959; Rueschemeyer, Stephens, & Stephens, 1992). I expect high inflation, low employment, and low growth to be less likely to lead to pro-democracy protests in countries with higher GDPs per capita as the negative effect of these things on people's overall economic health is lower when GDP per capita is higher. *GDP per capita* (lag) is measured in the analysis as the natural log of a country's gross domestic product per capita in a year (constant 2,000 USD). As expected, mean GDP per capita is lower for protest years (USD 1,272) versus non-protest years (USD 7,586). The objective and subjective measures of the economy are moderately correlated with each other ($r = .660$ or below).

Intervening Variables

To test how the effect of economic downturns on pro-democracy protests is mediated by elections, I include the following variables in the analysis. *Elections* is an indicator variable equal to 1 if an election occurred in a year and 0 otherwise. I expect pro-democracy protests to be more likely to arise in response to poor economic times in election years because people are more likely to associate the poor state of their country's economy with shortcomings in democracy in these periods. Whether or not pro-democracy protests arise in response to these elections also depends on the extent to which these elections are democratic, with protests being more likely to arise in response to less democratic elections than more democratic ones.

I evaluate the extent to which elections are democratic using the *Polity Index*, which measures the degree to which competition for the highest political office in a country (e.g., president and prime minister) is open and competitive, and the extent to which this office's authority is kept in check by other institutions. It ranges from −10 (authoritarianism) to +10 (democracy). I expect pro-democracy protests to be less likely to occur in countries that are

more democratic because elections are more open and competitive in these countries. However, I expect protests to be less likely to occur in strongly authoritarian states than in autocracies because the likelihood of governments using force to repress protests is greater in the former than in the latter.[9] I include a squared term in the analysis to evaluate this hypothesis.

I control for democracy in this analysis instead of dropping countries that score below a certain cut-point on the Polity Index for a number of reasons. First, truncating the data by dropping countries that score below a certain cut-point on this measure would bias the estimate on the coefficient for the Polity Index; second, it would result in countries dropping in and out of the analysis in ways that may be related to protests; third, it would omit from the analysis protests against the exclusion of certain groups (e.g., women and minorities) from voting because the Polity Index does not include suffrage in its calculus, and it would also exclude protests against failed coups d'etat in democracies. Nonetheless, as a robustness test, I drop all countries that receive a +10 on the Polity Index from the analysis. The results for the economic indicators in these models are statistically and substantively the same.

The outcome of these elections can also have a significant impact on the likelihood of pro-democracy protests arising. I expect protests to be less likely to occur, even if the economy is not performing well, if the incumbent is removed from power through the electoral process. To test this argument, I include a variable for *incumbent loss* in the model, coded 1 if the incumbent loses a national election in a given year and 0 otherwise.[10]

Control Variables

I include two sets of control variables in the analysis to represent the two most prominent alternative explanations to my argument. The most prominent of which claims that the pro-democracy protests arise in response to a lack of democracy in countries and to clearly fraudulent elections in particular (Hyde & Marinov, 2012b; Tucker, 2007). From this argument, it follows that pro-democracy protests should also be more likely to arise the less democratic elections become in countries, and the more undemocratic elections countries experience. Besides controlling for the level of democracy in countries, I include four additional variables in the analysis to test these claims.

The first, *Polity Index (change)*, measures the difference in a country's Polity Index score between years. A positive difference in this variable indicates an increase in democracy and a negative difference represents a decrease in democracy. The second identifies coups d'etat since coups can result in drastic and abrupt changes in the level of democracy in countries. *Coup d'etat* is coded 1 if a coup d'etat was attempted in a year and 0 otherwise based on

data from the J. M. Powell and Thyne (2011) data set.[11] The third and fourth variables identify the length of democracy in countries. *Post-45 years democratic* represents the number of years since 1945 that a country has been democratic defined as a Polity Index score greater than 5. To check the robustness of the results, I also defined the cutpoint at 0, but this measure, like the original, is not significantly associated with pro-democracy protests. *Consecutive years non-democratic* represents the number of years in a row that a country has not been democratic (defined as scoring below 5 on the Polity Index).

The second prominent alternative explanation for the rise of pro-democracy protests in countries is that these protests arise in response to undemocratic elections when people overcome collective action problems and other obstacles to anti-regime mobilization (Beaulieu, 2008; Hyde & Marinov, 2012b; Tucker, 2007). I explore many different factors related to mobilization in the analysis, but due to space constrains, I have included in the article only those control variables that were significant in at least some models. The remainder are included in the supplementary appendix. These variables are civic engagement, education, urbanization, roads/transportation, and climate (temperature and rainfall). Existing theories suggest that pro-democracy protests should be more likely to emerge in countries with more engaged and educated citizenries and in more urbanized countries with better transportation infrastructures, and warmer and drier weather, but these relationships are not significant.

The control variables included in the article are related to technology and foreign aid. *Cell phones* (lag) represent the percentage of people in a country in a given year, who report in the GWP that their home has a cell phone.[12] The variable *Internet* (lag) represents the percentage of people in a country in a given year who report in the GWP that their home has access to the Internet.[13] Cell phones and the Internet are thought to facilitate mobilization and to be positively related to the likelihood of pro-democracy protests arising in countries (Carafano, 2009).[14] To cross-validate the data, I compared the GWP data on Internet access with WDI data on the number of Internet users (including inside and outside one's home) in countries (per 100 people). The correlation is very high at .933.

US democracy aid represents the total amount of U.S. foreign aid appropriations (base and supplemental in 100,000 USD) given to countries for the purpose of "Democracy, Human Rights, and Governance" in a given year based on data available from the *Foreign Assistance Dashboard*. It includes aid from three different agencies: USAID, Department of State, and the Millennium Challenge Corporation. Democracy aid is thought to encourage pro-democracy protests by supporting non-governmental organizations that

help mobilize protests in favor of democracy and by fostering a democratic political culture in countries (McFaul, 2007). To undermine protests, foreign leaders have often denounced pro-democracy protests as machinations of the U.S. government.

Results

Table 1 examines the relationship between the two subjective measures of the economy and the likelihood of pro-democracy protests occurring. I included the subjective and objective economic measures in separate models because the former are in large part a function of the latter, and including them in the same model would therefore reduce the effect of the latter. I also include the two subjective measures in separate models because they are strongly correlated with each other ($r = .511$) and are also available for different time periods. Model 1 and Model 2 are the base models. In these models, I include controls for democracy and elections. According to these models, protests are significantly more likely to occur the more people there are in a country who are dissatisfied with their standard of living and who think that economic conditions in their country are poor. For example, according to Model 1, the predicted probability of protests occurring in a country is .07 points higher if two thirds of the population is dissatisfied with their standard of living rather than one third of the population. It is .04 points higher for the equivalent difference in those who think that economic conditions in their country are poor according to Model 2.[15] These results remain significant when additional controls are included in the models.

According to these models, elections are also significantly associated with an increased likelihood of pro-democracy protests occurring in countries, while democracy, as measured by the Polity Index, is significantly associated with a decreased likelihood of protests occurring. Adding a squared term for the Polity Index to both models indicates that pro-democracy protests are significantly more likely to occur in anocracies than in either democracies or authoritarian states. This relationship is significant at better than the .01 level. If I add variables for *post-45 years democratic* and *consecutive years non-democratic* to Models 1 and 2, neither variable is significant, indicating that having less experience with democracy and more consecutive non-democratic elections is not associated with a higher likelihood of protests to occur. These variables are not significant if I include them in any of the remaining models in the analysis.

In Models 3 and 4, I interact each of the subjective measures of the economy with election years and the Polity Index to determine if, as theorized, the likelihood of pro-democracy protests occurring in countries when the

Table 1. Subjective Economic Indicators (Elections Interaction).

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Pro-democracy protests (lag)	1.28** (0.40)	0.86 (0.49)	1.31** (0.40)	0.90 (0.52)	1.17 (0.64)	1.00 (0.88)
Standard of living (D)	0.03** (0.01)		0.02[a] (0.01)		0.03[a] (0.03)	
Standard of living (D)-election year-polity index			0.001[a] (0.002)		0.001[a] (0.01)	
Election year	1.62** (0.32)	1.16** (0.39)	1.35[a] (0.86)	−0.20[a] (1.36)	2.34[a] (1.80)	2.76[a] (2.53)
Polity index	−0.10** (0.03)	−0.12** (0.04)	−0.06[a] (0.06)	0.01[a] (0.06)	0.09[a] (0.21)	0.43[a] (0.26)
Election year-polity index			−0.11[a] (0.08)	−0.01[a] (0.11)	−0.24[a] (0.23)	−0.29[a] (0.33)
Standard of living (D)-election year			0.009[a] (0.017)		0.01[a] (0.04)	
Standard of living (D)-polity index			0.0001[a] (0.001)		−0.001[a] (0.004)	
Economic conditions (P)		0.02* (0.01)		0.02[a] (0.01)		0.05[a] (0.03)
Economic conditions (P)-election year-polity index				−0.0003[a] (0.002)		0.001[a] (0.01)
Economic conditions (P)-election year				0.02 (0.02)		−0.002[a] (0.04)
Economic conditions (P)-polity index				−0.002[a] (0.001)		−0.01[a] (0.04)
Polity index (change)					−0.17 (0.12)	−0.41** (0.14)
US democracy aid					0.01 (0.01)	−0.01 (0.02)
Coup d'etat					3.97** (1.38)	2.77* (1.16)
Internet					−0.04** (0.01)	−0.09** (0.03)
Cell phones					0.03** (0.01)	0.02 (0.02)
Constant	−4.13** (0.48)	−3.98** (0.65)	−3.92** (0.64)	−3.42** (0.66)	−6.54** (1.88)	−6.48** (2.17)
Log likelihood	−142.32	−79.53	−141.13	−78.02	−91.11	−37.41
Observations	560	322	560	322	430	202
Wald test[a]			60.23	20.73	48.83	11.71
Probability > χ^2			0.00	0.00	0.00	0.11

Standard errors are in parentheses.
[a]Variables included in the Wald Test to test the joint significance of the main effects and interaction terms in the model.
*$p \leq .05$. **$p \leq .01$.

economy is doing poorly is higher for election years and for less democratic elections. All of the interaction effects in Table 1, except Model 6, are significant at better than the $p \leq .01$ level, as are all of the relationships presented in the text. To evaluate the significance of the interaction terms, I rely on the joint significance of the main effects and interaction terms, which are reported at the bottom of the tables, because including interaction terms in models increases multicollinearity, inflates standard errors, and decreases the significance of individual coefficients. To understand the impact of the results, I report predicted probabilities in the text based on the mean values of the relevant terms in the models. In non-linear models, calculating these probabilities is essential because a variable with an insignificant coefficient may have a significant effect on another variable for certain relevant values of the modifying variable.

According to these models, the likelihood of pro-democracy protests occurring is higher in poor economic times, and is even higher in these times in election years and less democratic elections. For example, according to Model 3, if 50% of the people in a country are dissatisfied with their standard of living, the predicted probability of a pro-democracy protest occurring is .13 points higher in an election year than in a non-election year. This result is for a weakly democratic state scoring a 5 on the Polity Index, like the Democratic Republic of the Congo (post-2005). If the country is an anocracy, scoring a 0 on the Polity Index, like the Ivory Coast (post-2001), the predicted probability of a pro-democracy protest occurring is .23 points higher in an election year versus a non-election year. It is .35 points higher if the country is a weakly authoritarian state, like Bahrain (2010), scoring a −5 on the Polity Index.

Similarly, according to Model 4, if 50% of the people in a country believe that economic conditions in their country are poor, the predicted probability of a pro-democracy protest occurring in a weakly democratic state (scoring a 5 on the Polity Index) is .05 points higher in an election year than in a non-election year. It is .11 points higher for an anocracy (scoring a 0 on the Polity Index) in an election year versus a non-election year, and .17 points higher for a weakly authoritarian state (scoring a −5 on the Polity Index) in an election year versus a non-election year.

In Models 5 and 6, I add a number of control variables to the models. The strongest of these control variables is coup d'etat. Coups d'etat are associated with a significantly higher likelihood of pro-democracy protests occurring in countries. Decreases in democracy, as measured by the Polity Index (change) variable, are associated with a higher likelihood of protests occurring, though, only in one model. U.S. democracy aid is not significant. The effect of the Internet is significant but in the opposite direction than expected. This may be

because Internet access is related to wealth, and wealthier countries are less likely to experience protests than poorer ones. Cell phones are significant and in the direction expected, but only in one model.

Table 2 shows the relationship between each of the objective measures of the economy and the likelihood of protests occurring in countries. Model 7 is the baseline model. In it, I control for democracy and elections. The results remain the same if I add additional controls to the model. According to Model 7, inflation is associated with a higher likelihood of protests occurring, while employment and growth are associated with a lower one, as expected. Only the effect of education is significant in the baseline model, however. All three of these indicators, though, are significant when the overall wealth of a country is taken into consideration. That is, when each of these variables are interacted with GDP per capita, which is negatively associated with pro-democracy protests, high inflation rates, low growth rates, and low employment rates, are significantly less likely to be associated with pro-democracy protests the higher the GDP per capita of a country.

All three economic indicators are also significant when they are interacted with election years and the Polity Index, indicating that high inflation, low growth, and low employment are significantly associated with a higher likelihood of pro-democracy protests occurring in election years, especially when elections in these years are undemocratic. All interaction effects in Table 2 are significant at the $p \leq .01$ level or better, as are all of the differences in the predicted probabilities described in the text.

For example, according to Model 8, the predicted probability of a pro-democracy protest occurring in a weakly democratic state (scoring a 5 on the Polity Index) with a 10% inflation rate is .13 points higher in an election year than a non-election year. If the employment rate is 50% in an equally weak democratic state, it is .09 points higher in a election year than a non-election year, according to Model 9. And, if the growth rate is 1%, it is .11 points higher in an election year than in a non-election year, according to Model 10.[16] The likelihood of protests occurring is even higher for less democratic countries. These interaction effects remain significant at the .01 level or better when the same control variables presented in Table 1 are added to the models.[17] In these models, only coup d'etat has a consistently strong, positive, and significant relationship to pro-democracy protests. Cell phones and the Internet are significant in some models, but internet access is in the opposite direction than expected.

In Table 3, I restrict the analysis to election years, reducing the sample substantially, to assess whether the likelihood of protests occurring in hard economic times is lower if the public is able to remove the incumbent government from power through elections. All the interaction effects in Table 3 are

Table 2. Objective Economic Indicators (Elections Interaction).

	Model 7	Model 8	Model 9	Model 10
Pro-democracy protests (lag)	0.66 (0.44)	1.28** (0.35)	0.87 (0.43)	1.30** (0.33)
GDP per capita	−0.79** (0.14)	−0.46** (0.10)	−0.76** (0.14)	−0.44** (0.11)
Election year	1.81** (0.34)	1.54**,[a] (0.49)	2.07[a] (1.62)	2.25**,[a] (0.38)
Polity index	−0.09** (0.03)	−0.05[a] (0.06)	−0.12[a] (0.22)	−0.03[a] (0.04)
Election year-polity index		−0.06[a] (0.08)	−0.30[a] (0.24)	−0.17[a] (0.06)
Inflation	0.02 (0.02)	−0.02[a] (0.02)		
Inflation-election year-polity index		−0.002[a] (0.01)		
Inflation-election year		0.05[a] (0.05)		
Inflation-polity index		0.0002[a] (0.01)		
Employment	−0.05** (0.01)		−0.06*,[a] (0.02)	
Employment-election year-polity index			0.004[a] (0.004)	
Employment-election year			−0.005[a] (0.03)	
Employment-polity index			0.001[a] (0.004)	
Growth	−0.03 (0.03)			−0.02[a] (0.04)
Growth-election year-polity index				0.03**,[a] (0.01)
Growth-election year				−0.10[a] (0.07)
Growth-polity index				0.0004[a] (0.01)
Constant	5.44** (1.60)	0.39 (0.72)	5.43** (1.85)	0.002 (0.77)
Log likelihood	−121.42	−171.46	−125.20	−173.57
Observations	577	725	610	769
Wald test[a]		63.77	71.30	60.13
Probability > χ^2		0.00	0.00	0.00

Standard errors are in parentheses.
[a]Variables included in the Wald Test to test the joint significance of the main effects and interaction terms in the model.
*$p \leq .05$. **$p \leq .01$.

Table 3. Subjective and Objective Economic Indicators (Incumbent Loss Interaction).

	Model 11	Model 12	Model 13	Model 14
Pro-democracy protest (lag)	0.88 (0.77)	1.58* (0.69)	1.46* (0.73)	1.25 (0.64)
Incumbent loss	−3.26[a] (4.08)	2.04[a] (1.90)	40.45[a] (28.03)	5.71**,[a] (2.21)
Polity index	−0.13[a] (0.08)	−0.17**,[a] (0.05)	−0.33[a] (0.18)	−0.20**,[a] (0.05)
Standard of living (D)	0.02 (0.01)			
Standard of living (D)-incumbent loss-polity index	−0.01[a] (0.01)			
Incumbent loss-polity index	0.27[a] (0.45)	−0.29[a] (0.22)	−8.13[a] (5.85)	−1.02*,[a] (0.47)
Standard of Living (D)-Incumbent Loss	0.09[a] (0.09)			
Standard of living (D)-polity index	0.001[a] (0.002)			
Inflation		0.05[a] (0.04)		
Inflation-incumbent loss-polity index		0.02[a] (0.03)		
Inflation-incumbent loss		−0.33[a] (0.27)		
Inflation-polity index		0.01[a] (0.01)		
Employment			−0.03[a] (0.02)	
Employment-incumbent loss-polity index			0.12[a] (0.09)	
Employment-incumbent loss			−0.60[a] (0.42)	
Employment-polity index			0.01[a] (0.003)	
Growth				−0.08[a] (0.07)
Growth-incumbent loss-polity index				0.18[a] (0.09)
Growth-incumbent loss				−1.30*,[a] (0.60)
Growth-polity index				0.03**,[a] (0.01)
Constant	−2.01** (0.56)	−1.37** (0.36)	0.53 (1.17)	−0.81* (0.39)
Log likelihood	−64.45	−80.56	−57.45	−75.66
Observations	164	203	165	211
Wald test[a]	24.31	31.08	13.50	25.17
Probability > χ^2	0.00	0.00	0.06	0.00

Standard errors are in parentheses.
[a]Variables included in the Wald test to test the joint significance of the main effects and interaction terms in the model.
*$p \leq .05$. **$p \leq .01$.

significant at the .01 level or better, except Model 13, which is significant at the .06 level. All predicted probabilities described in the text are significant at the .01 level or better.[18] The results indicate that if the incumbent government wins the election, the likelihood of protests occurring is higher and the lower is the economic health of a country, and that increasingly hard economic times are not associated with a higher likelihood of protests occurring if the incumbent does not win the election.

According to Model 11, for example, if the incumbent wins the election, the predicted probability of a pro-democracy protest occurring in a weakly democratic state (scoring a 5 on the Polity Index) is .16 points higher if two-thirds of the population is dissatisfied with their standard of living rather than one third of the population. If the incumbent is defeated in the election, this difference is not significant.[19] The predicted probability of a pro-democracy protest occurring is also higher for less democratic countries.

The same pattern emerges for the objective measures of the economy. According to Model 12, if the incumbent wins the election, the predicted probability of a pro-democracy protest occurring in a weakly democratic state (scoring a 5 on the Polity Index) is .14 points higher if the inflation rate is 10% rather than 1%. If the incumbent is defeated in the election, this difference in inflation rates is not significant.

Similarly, according to Model 14, if the incumbent wins the election, the predicted probability of a pro-democracy protest occurring in a country is higher for lower rates of growth in weakly democratic and authoritarian states. According to Model 14, for example, if the incumbent wins the election, the predicted probability of a pro-democracy occurring in a weakly democratic state (scoring a 2 on the Polity Index) is .04 point higher if the growth rate is 1% instead of 10%.[20] In a weakly authoritarian state (scoring a −2 on the Polity Index), it is .25 points higher. For more democratic countries, the relationship between growth and pro-democracy protests is generally insignificant.

All of the interaction effects presented in Table 3 remain significant when the same control variables included in Table 1 are added to these models, while the previously insignificant interaction effect in Model 13 becomes significant.[21] In the full models, all of the control variables are insignificant, except the Internet and US democracy aid, the latter of which is significant in only one model. The Internet is again negatively associated with pro-democracy protests in these models in contrast to expectations, while US democracy aid is positively associated with it.

Conclusion

Pro-democracy protests do not occur in the vast majority of countries where elections are less than fully democratic, and the economy seems to be an important reason why. According to the results of this analysis, pro-democracy protests are more likely to arise when the economy is not performing well—when inflation is high and employment, growth, and GDP per capita are low, and when people are dissatisfied with the economic conditions in their country and their own standard of living. Pro-democracy protests are even more likely to arise, according to this analysis, in election periods, especially when people are unable to remove the incumbent government from office. Moreover, while much research has shown that democracy is positively associated with economic development (Boix, 2003; Lipset, 1959; Przeworski & Limongi, 1997), the analysis in this article indicates that pro-democracy protests are negatively associated with it.

Although mobilization poses a serious obstacle to protests, as others have suggested, it is clearly not the only factor impeding the rise of pro-democracy protests in countries. In fact, the results of this study indicate that many technological advances made in recent decades, including the internet and cell phones, do not make pro-democracy movements more likely to occur. These technologies might affect the size and longevity of protests by making it easier for protesters to communicate with people more quickly, but they do not seem to offer an additional advantage over old technologies, like word of mouth, the media, and so forth, in getting these protests off the ground in the first place. That is not to say that these technologies have not been used to organize demonstrations, like the Arab Spring protests—only that these protests would likely have occurred anyway had these technologies not existed, because people would likely have resorted to alternative means to organize the protests.

Ironically, what prompts pro-democracy protests in the first place—a poorly performing economy—could also contribute to their downfall. Pro-democracy protests can weaken economies by diverting capital from production, stifling tourism, damaging infrastructure, and cutting off foreign trade and investment. A further downturn in a country's economy could undermine support for these protests among citizens and the business elite, especially if cash-strapped governments limit public expenditures in response to protests. The extent to which protests have this effect depends in large part on whether people blame the protests for their continuing economic woes, or the failure of governments to reform fast enough in response to these protests. The former is likely to lead to the retardation of democracy while the latter is not.

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Notes

1. Based on data from the World Development Indicators (Online) on GDP growth (annual %).
2. It is still possible that expectations of future unrest in some form might lead governments to undertake economic reforms. This could have two effects: It could reduce the overall frequency with which pro-democracy protests occur in countries (although it should not change the nature of this relationship); or, it could delay the onset of the protests, as the reforms might temporarily satiate the populace. It is unlikely, however, that governments would undertake reforms specifically to prevent pro-democracy protests from occurring, and/or to such a degree that they would affect the national aggregate measures used in the analysis. Governments rarely make economic concessions to the populace in response to actual pro-democracy protests. Thus, it is doubtful that they would do so in anticipation of the protests. Governments promised to increase public spending in response to the pro-democracy protests in this analysis only 1.35% of the time, and promised to implement policy reforms 2.70% of the time.
3. I do not use a maximal definition of democracy for two reasons: First, there is no clear consensus regarding the criteria of a maximal definition of democracy as there is with a minimal definition. Second, information related to a more maximal definition of democracy is not available consistently across countries as is information related to a more minimal definition.
4. Protests where participants demand democratic elections at the subnational level (i.e., regional or local) are not included because reliable information about these protests is not available across countries. Protests that take place by an émigré community outside the target country are also not included.
5. To ensure the accuracy of the coding, the data have been triangulated with the *National Elections Across Democracy and Autocracy* (NELDA) data set, which looks at post-election protests and riots against electoral fraud (Hyde & Marinov, 2012b).
6. *Standard of living (D)*: "Are you satisfied or dissatisfied with your standard of living, all the things you can buy and do?" Satisfied; Dissatisfied; Don't Know and Refused to Answer.
7. *Economic conditions (P)*: "Do you believe the current economic conditions in this country are good, or not?" Yes, Good; No, Not Good; Don't Know and Refused to Answer.

8. The inflation figures and all subsequent models of inflation exclude Zimbabwe (2007 and 2008), because the rates of inflation in these years were extreme outliers driving the results. In 2008, inflation (lag) was over 24441%. In 2007, it was 1096%. The next highest rate of inflation in the data was 53%.
9. For arguments suggesting that repression serves as a deterrent to protests, see: Gurr (1971); Muller and Weede (1990). For counter-arguments, see Hibbs (1973); Lichbach (1987); Francisco (1995).
10. For presidential elections, the variable incumbent loss is coded 1 if the incumbent president loses the national election or does not run in the election, but his/her party loses the election. For legislative elections in parliamentary systems, the variable incumbent loss is coded 1 if the party that controls the most seats in the legislature does not win the most seats in the election. For legislative elections in presidential systems, it is coded 1 if the party of the president does not win the most seats in an election and 0 otherwise. The criteria and codings are based on NELDA for the 2006 to 2010 period, which I expanded to include 2011.
11. I added the one auto-golpe, Pakistan (2007), that occurred in the period analyzed to these data.
12. *Cell phones*: "Does your home have a cellular phone?" Yes; No; Don't Know; Refused to Answer.
13. *Internet*: "Does your home have access to the Internet?" Yes; No; Don't Know; Refused to Answer.
14. I do not include variables in the analysis for the years that Facebook or Twitter were founded, because there is limited variation in both in the data to parse out their effects. The analysis begins in 2005, while Facebook and Twitter were founded in 2003 and 2006, respectively.
15. All other variables in these examples for Models 1 and 2 are held at their mean.
16. For all of these examples, GDP per capita (lag) is set to its mean and the Polity Index equals 5.
17. These variables are Polity Index (change), coup d'etat, U.S. democracy aid, the Internet, and cell phones.
18. The model for economic conditions (P) is not included in the table, because there were too few data points in the restricted models to run the analysis.
19. In this example, and the following example for Model 12, incumbent loss is set to 0, Polity Index is set to 5, and all other variables are set to their means.
20. In this example for Model 14, incumbent loss is set to 0, Polity Index is set to 2, and all other variables are set to their mean. In the following example for Model 14, incumbent loss is set to 0, Polity Index is set to −2, and all other variables are set to their means.
21. These control variables are: Polity Index (change), US democracy aid, the internet and cell phones. Coup d'etat is not included in the models because only 3 coups d'etat were attempted in election years in the data set—2 were unsuccessful (i.e., Egypt and Honduras) and 1 was successful (i.e., Guinea-Bissau).

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