DEMOCRATIC BREAKDOWNS IN ECONOMIC CRISES: THE ROLE OF POLITICAL IDEOLOGY

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1. INTRODUCTION

This paper examines the relationship between economic downturns and democratic breakdowns in 33 states between 1870 and 2007.We use new data on the ideological orientation of heads of government to demonstrate that the empirical relationship between downturns and transitions to authoritarianism depends on the ideology of the incumbent government. Our results confirm the widely held belief that the likelihood of democratic breakdown increases in recessions – at least in unconsolidated and relatively poor democracies – but we add an important qualification: the chief explanation for this pattern is an increased likelihood of democratic breakdown if the economy contracts when a left-wing government is in power; under right-wing governments, recessions are not associated with a significant increase in the likelihood of transitions to authoritarianism.

As we show in Section 2, our main hypothesis is a direct extension of one of the most widely used theoretical models of transitions in contemporary political science (Acemoglu and Robinson 2001), but we also present additional ideas about how to explain the relationship between economic downturns, government ideology, and democratic breakdown, before proceeding to the empirical analyses in Sections 3–5. (Section 6 concludes.)

2. WHEN DEMOCRACIES DIE

One of the main debates in the literature on democratization – indeed, one of the key debates in all of comparative politics – concerns the relationship between economic development, growth, and regime change (transitions from authoritarianism to democracy and vice versa). Our paper is concerned with one part of this larger problem: the relationship between economic downturns on the one hand and transitions from democracy to authoritarianism on the other. We are thus not directly concerned with transitions to democracy; nor are we concerned with the

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question whether the *level* of economic development influences regime transitions (Boix and Stokes 2003; Przeworski et al. 2000; Przeworski and Limongi 1997; Rodrik and Wacziarg 2005); nor do we address the question whether democracy influences economic growth directly, indirectly, or not at all (Barro 1996; Doucouliagos and Ulubasoglu 2008; Gerring et al. 2005). But some of these questions are indirectly relevant to the specific problem that we examine.

There is broad agreement among scholars that economic downturns increase the risk of transitions from democracy to authoritarianism (for an early statement of this view, see O'Donnell 1973). Gasiorowski (1995, 888) concludes that "slow or negative economic growth increases the likelihood of breakdown." Haggard and Kaufman (1997, 279) conclude that democratic consolidation hinges at least in part "on the capacity to implement sustainable growth-oriented policies." Przeworski et al. (2000, 109) observe that most democratic breakdowns are "accompanied by some economic crisis" (cf. Przeworski and Limongi 1997). Svolik (2008, 154) argues that non-consolidated democracies experience reversals to authoritarianism "primarily as a consequence of an economic recession" (cf. Svolik 2014). Teorell (2010) finds that low growth is one of the main short-term determinants of democratic reversals. Møller, Skaaning, and Schmotz (2013), finally, show that economic downturns were associated with an increased likelihood of democratic breakdowns in the inter-war period.

Our study is most directly related to that of Przeworski et al. (2000, 106–117), who examine the effect of growth on democratic reversals in a transition model, as we do, and who find that economic downturns have statistically and substantively significant effects on the likelihood of transitions to authoritarianism. In their model, the likelihood of a democratic breakdown is approximately 5 percent per year when per-capita income declines; when per-capita income increases, the likelihood is only around 1–2 percent per year. This effect is accentuated in poorer countries (Przeworski et al. 2000, 117, conclude that "all the evidence we have examined . . . indicates that democracies in poorer countries are more likely to die when they experience economic crises than when their economies grow"). In a more recent study, Svolik (2014) finds, similarly, that recessions are associated with a heightened risk of coups among non-consolidated democracies; consolidated democracies, by contrast, are resilient to economic shocks.

Although most studies agree that when the economy contracts, authoritarianism becomes more likely, the mechanisms behind this relationship are not well-understood. Even some of the most thorough comparative studies of political transitions, such as Przeworski et al.'s and Svolik's, are undecided about the precise nature of the relationship between economic crises and democratic breakdowns. Do economic crises reduce the support for democracy since they make it more difficult to maintain pro-democracy coalitions? Or are regime change and economic contraction both symptoms of underlying political unrest and uncertainty, as Alesina et al. (1996) suggest? For the reasons that are set out in Przeworski et al. (2000, 106–117), these are difficult questions to answer.

The idea behind this paper is that one way of getting closer to the mechanisms of this relationship is to consider the ideological orientation of pre-transition governments. Are all governments equally vulnerable to economic shocks, or are some governments more vulnerable than others? The answer to that question would provide us with a new piece of the puzzle, but to our knowledge, it is not a question that has been examined previously.

Our main hypothesis is that the relationship between economic downturns and transitions to authoritarianism depends on the ideology of the incumbent government. We expect the likelihood of a democratic breakdown to increase sharply if the economy contracts when a left-wing government is in power, but we do not expect recessions to be associated with a significant increase in the likelihood of transitions to authoritarianism when right-wing governments are in power.

This hypothesis is a direct extension of one of the most widely used theoretical models of democratization and democratic breakdowns in contemporary political science: Acemoglu and Robinson's model of political transitions (2001). One of the key assumptions of the Acemoglu and Robinson model is that transitions to authoritarianism, or "coups," never occur when the economy is growing, only in recessions (p. 944: "there is no threat of a coup in normal times"). Nor do transitions to authoritarianism occur, in this model, unless the poor (or, rather, political parties representing the poor) pursue redistributive policies that threaten to reduce the assets and incomes of the rich (p. 939: "There is a danger in radical reforms . . . [since] their anticipation may increase the likelihood of a coup during the reform period"). A key idea of Acemoglu and Robinson's paper is, therefore, that transitions to authoritarianism occur "if there is a recession following asset redistribution" (2001, 952).

Acemoglu and Robinson's model does not include partisan competition, but it is straightforward to extend the model by allowing democratic governments to differ in their ideological dispositions. Suppose that left-wing governments are more likely to propose redistributive policies, and therefore particularly threatening to the rich elite, especially in unequal countries. If the poor choose to elect a left-wing government, the rich are more likely to respond with a coup to restore non-democratic rule to protect their property. Empirically, we would therefore expect left-wing democratic governments to be more likely targets of coups d'état than non-left governments.[1]

Before we proceed to the empirical analysis, we would like to provide some additional reasons for expecting a left-of-center government to be vulnerable to coups when the economy contracts. In Acemoglu and Robinson's model, recessions matter since "the costs of political turmoil . . . are lower during such episodes" (939). In other words, the role of recessions in the model is simply to "change the opportunity cost of coups to rich agents in a democracy and of revolution to poor agents in a non-democracy" (941). But it is also possible that recessions lead at least some left-wing governments to pursue more radically redistributive economic policies than they would otherwise pursue (since the demand for redistribution and social protection among the poor increases when times

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[1]Anticipating this response by the rich, the poor may be better off supporting center- or right-wing governments with less radical redistribution agendas.

are hard). Such radicalization simultaneously increases the incentives of the rich to initiate coups and makes it more difficult to sustain the political coalitions that supported democracy in the first place: as Haggard and Kaufman (1997, 279) note, economic growth "eases the trade-offs associated with the organization of political support" and "can reduce the conflicts resulting from inequality or other social cleavages and can thus mute the tendency to political alienation, polarization, and destabilizing social violence" (see also Haggard and Kaufman 1995, chapter 10).

We present both quantitative and qualitative evidence in support of the hypothesis that the effect of recessions on transitions to authoritarianism is conditional on the ideology of the incumbent government. We do not claim that the evidence is conclusive, but it is suggestive, and we believe that this paper identifies a pattern that theories of political transitions should be able to account for.

3. Data and Methods

Research Design. The following countries are included in the analysis: Argentina, Australia, Austria, Belgium, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Denmark, Ecuador, Finland, France, Germany (West Germany between 1949 and 1990), Greece, Ireland, Italy, Japan, Mexico, the Netherlands, New Zealand, Norway, Paraguay, Peru, Portugal, Spain, Sweden, Switzerland, the United Kingdom, the United States, Uruguay, and Venezuela. In other words, the dataset includes all South American, North American, and Western European countries with a population of more than one million, plus Australia, Costa Rica, Japan, Mexico, and New Zealand.[2]

The starting year of 1870 is chosen for two related reasons. First, and most importantly, this was a period when the rate of industrialization increased sharply in many of the countries in our sample, turning the 1870s into a watershed in political history, as Finer (1997, volume III, chapter 12) noted in his *History of Government.* Second, many countries in our sample undertook fundamental constitutional changes in the 1860s and early 1870s Ansell and Lindvall (2013).

Data. The main variables in our analysis are *Democracy*, economic *Growth*, economic development (*GDP per Capita*), and the ideology of the incumbent government (specifically, if a *Left Government* was in power). For data on democracy, we rely on the dichotomous coding of political regimes in Boix, Miller, and Rosato (2013). For data on growth and economic development, we rely on annual GDP per capita data from Maddison (2010). As we explain in more detail below, we have cross-checked our results using alternative measures of growth and economic development, but a simple recession indicator is our main measure.

The main empirical contribution of our paper is that we introduce new data on the ideological orientation of heads of government during the period from 1870 to 2012 in the 33 countries listed above. The two

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[2]Some of these countries were not independent for the entire period between 1870 and 2012. We have included all country-years that are included in the Boix, Miller, and Rosato (2013) dataset on political regimes (that is, country-years for which the `democracy_omitteddata` variable in the Boix, Miller, and Rosato dataset takes nonmissing values).

principal methodological problems for a study that attempts to capture ideological differences and similarities among leading politicians in more than 30 countries over a period of 140 years are feasibility and consistency: developing a measure of ideology that can realistically be applied systematically to governments during all country-years. We have chosen to deal with these two problems by concentrating on heads of government (prime ministers, presidents, chancellors, etc.) and by separating heads of government into three ideological categories: Left, Center, and Right (and an "other" category for heads of government that do not fit into either). These ideological labels correspond to three party families that have existed for most of the period that we cover: "Left" largely denotes socialist and social-democratic parties and factions, "Center" denotes centrist agrarian and social liberal parties and factions, and "Right" denotes conservative, Catholic, Christian democratic, and market-liberal parties and factions. Clearly, these families of parties have behaved very differently in different political systems and in different periods of time, but especially since we rely, in this paper, on a simple distinction between left-wing heads of government and all others, we are reasonably confident in the validity and reliability of our measure of ideology.

When we coded the ideology of heads of government, we proceeded in the following manner (for a more detailed description, see Brambor, Lindvall, and Stjernquist (2013): (a) We used the rulers.org dataset (Schemmel 2013) to produce a list of heads of government (prime ministers, presidents, chancellors, etc.) for each country in the dataset. We then identified the head of government who was in office for the greater part of each year to create a basic country-year dataset that simply included a list of names. (b) We then used a number of different sources, including, in particular, Nohlen and Stöver (2010), Nohlen, Grotz, and Hartmann (2002), Nohlen (2005a), Nohlen (2005b), Von Beyme (1970), and Encyclopedia Britannica (2013), to identify the name of the party that the head of government belonged to (or, alternatively, his or her parliamentary faction or ideological tendency, in countries without institutionalized party systems). (c) In countries where it was possible to do so, we used sources such as Caramani (2000), Caramani (2004), Szajkowski (2005), and country-specific sources to determine how historical parties are related to modern political parties (that is, which broad families of parties existed in each country, and which parties belonged to those families). (d) We then used a number of different sources to categorize parties and party families into the three categories left, center, and right (including a variety of country-specific sources). The resulting categorization places parties in three grand ideological traditions, with the label "Right" for conservative parties, strongly market-liberal parties, and Catholic/Christian democratic parties, "Center" for liberal parties with a significant social reform agenda (social liberalism), and "Left" for socialist parties. (e) Finally, we used historical reference works and, in some cases, examined the biographies of heads of government to determine if the ideological orientations of individual heads of government deviated from the ideology of their parties or factions. We used similar sources to determine the ideologies of heads of government that did not belong to any particular party. (f) Once we had a preliminary coding for each country, we sent out the spreadsheets with the years, names,

party names, and preliminary ideological categorizations to country experts. Based on the expert responses, often following further inquiries, and after consultation of additional country specific sources, we decided on a final ideological coding.[3]

Estimation. Our model estimates the probability of democratic breakdown. We use a simple transition model (Beck 2008, 490; cf. Cox and Snell 1989), similar to the models estimated by Przeworski et al. (2000), where we treat this year's regime, $A_{i,t}$ (where $A = 1$ for authoritarian regimes and $A = 0$ for democracies), as a function of whether there was a recession last year, $H_{i,t-1}$ (H is for "hard times," where $H = 1$ for negative growth and $H = 0$ for positive or zero growth), the ideology of last year's government, $L_{i,t-1}$ (where $L = 1$ for left-wing governments and $L = 0$ for all others), the interaction of the two ($H_{i,t-1} \times L_{i,t-1}$), and some controls, $\mathbf{X}$, (the natural log of GDP per capita at $t-1$ and a polynomial of the duration since the last regime change, as recommended by Carter and Signorino 2010). We only include country years where the regime was democratic in the year before ($A_{i,t-1} = 0$). In sum, we estimate the model

$$\Pr(A_{i,t} = 1 | A_{i,t-1} = 0) = \text{Logit}(\beta_1 H_{i,t-1} + \beta_2 L_{i,t-1} + \beta_3 H_{i,t-1} L_{i,t-1} + \mathbf{X}\gamma + \epsilon_{i,t})$$

expecting that the coefficient for the interaction term, β_3, will be positive, indicating that hard times increase the likelihood of democratic breakdown in democracies with left-wing governments. We estimate the model with a logistic regression and calculate robust standard errors clustered on countries.

We only include a one-year lag of economic growth since several other studies have found – and our own tests have confirmed – that regime effects tend to be more or less immediate. For instance, Przeworski and Limongi 1997 argue that "past growth does not matter" and that, in their model, "one year of economic crisis is enough to produce the political effects." Przeworski et al. (2000) note that negative growth over two years increases the likelihood of democratic breakdown slightly, compared to one year of negative growth, but the main effect emerges after a single year and growth patterns over periods of more than two years do not seem to matter at all (Przeworski et al. 2000, 109–112). (Møller, Skaaning, and Schmotz's recent study on the inter-war period (2013) is an important exception, for in this study, only drawn-out recessions have a significant effect on the survival of democracy.)

4. Evidence

General Pattern. In our sample of 33 countries, observed between 1870 and 2007, we identify 26 transitions from democracy to authoritarianism. In 13 of those 26 cases, growth was negative at $t-1$ (that is, in the year before the transition occurred). In the sample as a whole, growth was negative in 23 percent of all country-years, so transitions to authoritarianism are clearly associated with economic downturns. Among

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[3]The dataset builds on two earlier datasets: the World Bank's Database of Political Institutions (Beck et al. 2001; Keefer 2012), which covers the period from 1975 to 2012, and Lindvall and Erman (2013), which was used in Ansell and Lindvall (2013), and which includes a subset of our full 33-country sample, covering the period from 1870 to 1939.

the 13 transitions that occurred in the wake of recessions, 6 occurred in countries governed by left-wing governments (the proportion is almost twice as high as in the sample as a whole). Among the 13 transitions that occurred as the economy was growing, only 3 occurred in countries with left-wing governments. The median growth rate before the transition where the last pre-transition government was a right-wing government was 1.9 percent; where the last pre-transition government was a left-wing government, it was -2.3 percent. This all suggests that transitions to authoritarianism are particularly likely when the economy contracts as a left-wing government is in power. We will now estimate a statistical model to determine how robust this finding is when we take potential confounders into account. We return to some of the specific cases in the next section.

Statistical Analysis. In Table 1, we try to replicate the results for the relationship between growth and regime transitions that are presented in Przeworski et al. (2000), including in the analysis all countries for which we have data on government ideology (a variable that we include in later analyses).

Model (1) estimates a simple model of regime transitions from democracy to dictatorship, including only the years 1950–1990, which was the time period that was included in Przeworski et al. (2000). A recession appears to have a robust effect on the likelihood of democratic breakdown: following a recession, the estimated likelihood of breakdown of democracy increases from 0.7 to 3.5 percent, and the difference between the two scenarios is significant ($p = 0.02$).[4] The results are similar to those reported in Przeworski et al. (2000) (which found a 5 percent likelihood of a democratic breakdown in a recession and a 1.5 percent likelihood in a growing economy). Model (2) includes additional control variables: the level of economic development, as measured by logged per-capita GDP (lagged one year), and a polynomial of the age of the regime. The estimated likelihood of democratic breakdown is now conditional on development: when GDP per capita is held at the 90th percentile, a recession is associated with a 0.5 percentage-point increase in the estimated likelihood of breakdown (not significant); when it is held at the 10th percentile, it is associated with a 5.6 percentage-point increase (from 1.5 to 7.1 percent, $p = 0.08$).

Models (3) and (4) are identical to models (1) and (2), but we now include the whole period from 1870 to 2007. In this larger sample, there are still reasonably robust effects of recessions on the survival of democracies. The magnitude of the effect of recessions is weaker than in the postwar models, however. Model (3) suggests that a recession increases the likelihood of democratic breakdown from 0.7 to 2.2 percent ($p = 0.03$). Model (4), in which the effect of recessions is conditional on development, recessions have no negative effect at all on regime survival when GDP per capita is held at the 90th percentile; when it is held at the 10th percentile, however, recessions are associated with a (weakly significant) increase in the likelihood of a transition to authoritarianism

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[4]The predicted probabilities were calculated with the help of `Stata`'s margins command. We hold the values of all control variables constant at the values that are actually observed in the dataset and then we calculate the means of these observation-specific predicted probabilities.

TABLE 1. Recessions and Democratic Breakdowns: Baseline Results

	1950 − 1990		1870 − 2007	
	(1)	(2)	(3)	(4)
Recession$_{t-1}$ (0, 1)	1.67***	1.63***	1.21***	0.92**
	(0.50)	(0.55)	(0.42)	(0.44)
(log) GDP per Capita$_{t-1}$		−1.64*		−0.77*
		(0.88)		(0.46)
Observations	1051	1051	2561	2561

Robust, country-clustered standard errors in parentheses. Models (2) and (4) contain duration polynomials.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

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from 1.0 to 2.6 percent. Taken together, these results suggest that the pattern that Przeworski and his co-authors identified – a robust relationship between recessions and democratic breakdown – is particularly strong in the five post-war decades that they examined. The pattern is less strong both in the pre-Second World War sample and in the post-1980s sample, although the main variables of interest behave in identical ways.

Now, consider the results in Table 2, which introduces the ideology variable that we discussed in the previous section. Model (5) is identical to model (1), and estimated for the same time period, but also includes the ideology of the government in the year before the transition in the analysis. The predicted probabilities that can be derived from the model suggest strongly that the increased likelihood of transitions to authoritarianism during recessions is driven by countries with left-wing governments: when a center- or right-wing (or "other") government is in power, the estimated likelihood of a democratic breakdown increases from 0.8 to 1.8 percent during a recession, and the difference is not statistically significant; when a left-wing government is in power, the likelihood of a transition to authoritarianism increases from 0.4 to 6.9 percent ($p = 0.04$).

Model (6) adds GDP per capita and a polynomial of duration, just as model (2) did. Calculating predicted probabilities for this model reveals that the only category of governments for which a recession is associated with an estimated increase in the likelihood of a transition to authoritarianism (albeit weakly significantly, at $p = 0.10$) is poorer countries with left-wing governments: at the 90th percentile of GDP per capita, a transition to authoritarianism is very unlikely, also under left-wing governments; at the 10th percentile, the predicted likelihood of a democratic breakdown increases dramatically after a recession if a left-wing government is in power, from 1.2 to 15.8 percent.

Models (7) and (8) estimate models (5) and (6) in the full 1870–2007 sample. The results are similar to the results from the analysis of the postwar sample, although, as in models (3) and (4), the magnitude of the effects is slightly smaller. Model (7) suggests that if a center- or right-wing government is in power, a recession increases the likelihood of democratic breakdown from 0.7 to 1.5 percent, but the effect is not significant; if a left-wing government is power, on the other hand, the increase in the likelihood of democratic breakdown from 0.6 to 4.7 percent is statistically significant ($p = 0.02$). In Model (8), which includes additional controls, the effect of recessions is again conditional on the level of economic development. As in model (6), the starkest result concerns left-wing governments in poor countries (the only scenario in which a recession is associated with a statistically significant increase, at $p = 0.04$, in the likelihood of a transition): at the 10th percentile of GDP per capita, a recession is associated with an increase in the likelihood of democratic breakdown from 1.3 to 7.1 percent.

To account for the process of democratic consolidation, our models control for the level of development and the age of democracy (the time elapsed since the current spell of democracy started). Recently, Svolik (2014) has argued for separating the processes and determinants of

TABLE 2. Recessions and Democratic Breakdowns: The Role of Ideology

	1950 − 1990		1870 − 2007	
	(5)	(6)	(7)	(8)
Recession$_{t-1}$ (0, 1)	0.79	0.78	0.77	0.49
	(0.62)	(0.61)	(0.58)	(0.64)
Left Government$_{t-1}$ (0, 1)	−0.78	−0.40	−0.24	0.17
	(0.97)	(1.06)	(0.67)	(0.62)
Recession × Left Government$_{t-1}$ (0, 1)	2.19**	2.04**	1.42*	1.29
	(0.89)	(0.91)	(0.79)	(0.81)
(log) GDP per Capita$_{t-1}$		−1.67		−0.94*
		(1.03)		(0.55)
Observations	1051	1051	2558	2558

Robust, country-clustered standard errors in parentheses. Models (6) and (8) contain time polynomials.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

TABLE 3. Democratic Consolidation and Coups

	All Transitions	Coups only
	(9)	(10)
Recession$_{t-1}$ (0, 1)	1.05	−0.91
	(0.94)	(0.75)
Left Government$_{t-1}$ (0, 1)	1.62	0.45
	(1.16)	(0.73)
Recession$_{t-1}$ × Left Government$_{t-1}$ (0, 1)	0.09	1.90*
	(1.20)	(0.99)
Time (Regime Age)	−0.02	
	(0.49)	
Left Government$_{t-1}$ × Time	−0.55	
	(0.41)	
Recession$_{t-1}$ × Time	−0.22	
	(0.39)	
Recession$_{t-1}$ × Left Government$_{t-1}$ (0, 1) × Time	0.46	
	(0.47)	
(log) GDP per Capita$_{t-1}$	−1.13**	−0.74
	(0.55)	(0.88)
Observations	2558	2548

Robust, country-clustered standard errors in parentheses. All models contain time polynomials.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

democratic consolidation and democratic reversal. By doing so empirically, he finds that economic growth only plays a role for democratic survival among transitional democracies. To explore the variation of the effect of left-wing governments under recession across old and new democracies, we evaluate a three-way interaction of recession, left government, and the age of democracy (see Model (9) in Table 3). Illustrating the results of this analysis, Figure 1 presents the marginal effect of a recession on the probability of democratic breakdown for democracies aged between zero and thirty years, separating countries with left and non-left governments. We find that recessions have no effect on the probability of democratic breakdown for non-left governments (right panel). However, consistent with the evidence that we have presented thus far, recessions significantly increase the likelihood of breakdowns for democratic governments led by leftist leaders for democracies aged between 5 and 29 years (left panel).

FIGURE 1. Effect of Recession by Ideology and Regime Age
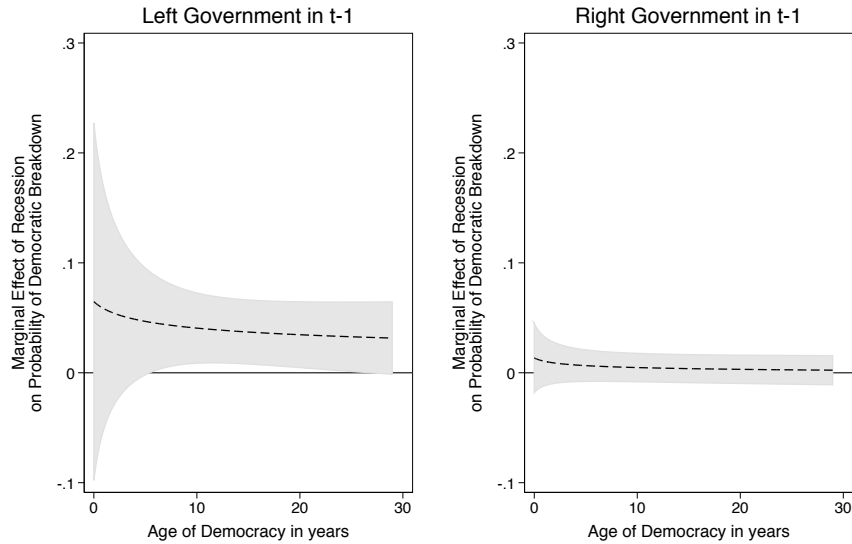
In Table 3, we also consider the type of transition as a differentiating factor. Svolik (2014) classifies almost all democratic breakdowns as either coups or incumbent takeovers. Relying on Acemoglu and Robinson's (2001) theory of transitions, we argued above that left-wing democratic governments are especially vulnerable to coups instigated by the rich because of their preference for redistribution. In Model (12), we estimate the likelihood of democratic breakdowns by coup d'état only, using Svolik's data. We find that left-wing governments are at a significantly higher risk of being removed in a coup during a recession than non-left governments.

Robustness Checks. In this section, we investigate whether the finding that transitions to authoritarianism are more likely when left-wing democratic governments are in power during economic crises is robust to different specifications and data definitions.

Beyond ideology, the central part of our argument concerns the effect of recessions. In Tables 1–3 above, economic crises are defined as periods of negative growth of real GDP per capita. Such an indicator, though simple and appealing, does not take into account either the severity of the crisis or the economic environment of the country in the recent past.

Using a continuous measure of economic growth, the results hold up. Negative growth is associated with decreased democratic stability, with left governments being more susceptible to its effects (see Model (11) in Table 4). Substantively, going from a situation of 4 percent positive growth to 4 percent negative growth (about the 25th and 75th percentiles in the sample) is predicted to increase the likelihood of democratic breakdown by almost 4 percentage points in poor countries (bottom decile) for left governments ($p = 0.02$), but has no effect on the survival of center or right governments.

The idea of equating economic crises with recessions, that is periods of negative economic growth, makes particular sense in developed countries in which growth typically hovers in the -5 to 5 range. However, in countries in which the previous years were marked by spectacular growth rates, even falling back to low single-digit growth rates above zero may be interpreted as poor economic performance. To check for such a scenario, we create several measures taking the 10-year growth average of the country in previous years rather than zero as the reference point. First, we calculate the difference of the current annual growth rate from the average growth rate of the 10 previous years in the country. Second, we generate two indicators of economic crises that take the value 1 if the country experiences a growth rate that is more than one (or two, for more severe crises) standard deviations below its 10-year previous growth average. For example, from 2000 to 2010 China had an average growth rate of 8.9 percent with a standard deviation of 2.6 percentage points. A growth rate of 6.3 percent (one standard deviation below trend) would be identified as a mild economic crisis, and a growth rate of 3.7 percent (two standard deviations below trend) as a severe crisis, even if the growth rate remains well above recession-levels in both cases.

Model (12) in Table 4 estimates the effect of deviations from the 10-year past growth rate on democratic stability. The model provides evidence that negative deviations from the long-term trend reduce the likelihood of survival of left-wing governments but have no effect on right-wing led governments. Moving from a growth rate exactly on the 10-year trend line to a negative deviation of 5 percentage points increases the point estimate of the likelihood of democratic breakdown by 12 percentage points for left governments ($p = 0.04$) in poor countries but leaves the likelihood of failure for non-left governments substantively unchanged. Models (13) and (14) use indicators for mild (1σ below trend) and severe (2σ below trend) economic crises. The estimates indicate that crises reduce the stability of (poor) democracies if governed by a left-wing head of government substantially more than if led by right or center head of governments. A mild economic crisis in a poor country led by a left-wing government is estimated to increase the probability of democratic failure from 1 percent to 13 percent ($p = 0.05$). The estimated increase in countries with a non-left head of government is about 1 percentage point and nowhere near significance. For severe crises, a

Table 4. Recessions and Regime Transitions: Robustness Checks

	(11)	(12)	(13)	(14)
Left Government$_{t-1}$ (0, 1)	0.71 (0.56)	0.32 (0.58)	0.03 (0.55)	0.44 (0.57)
Negative Growth$_{t-1}$	0.00 (0.06)			
Negative Growth Deviation from 10-year Trend$_{t-1}$		−0.01 (0.05)		
Negative Deviation ($>1\sigma$) from 10-year Trend$_{t-1}$ (0, 1)			0.78 (0.60)	
Negative Deviation ($>2\sigma$) from 10-year Trend$_{t-1}$ (0, 1)				0.68 (0.94)
Negative Growth$_{t-1}$ × Left Government$_{t-1}$	0.17** (0.08)			
Negative Growth Deviation$_{t-1}$ × Left Government$_{t-1}$		0.22*** (0.08)		
Negative Growth Deviation$_{t-1}$ ($>1\sigma$) × Left Government$_{t-1}$			1.77** (0.82)	
Negative Growth Deviation$_{t-1}$ ($>2\sigma$) × Left Government$_{t-1}$				2.36** (1.17)
(log) GDP per Capita$_{t-1}$	−0.93* (0.56)	−0.99* (0.56)	−1.10** (0.53)	−1.01* (0.54)
Observations	2554	2527	2527	2527

Robust, country-clustered standard errors in parentheses. All models contain time polynomials.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

TABLE 5. Breakdowns After Downturns, 1870–2007

Country	Year	Negative Growth at $t-1$	Growth Below Trend at $t-1$	Government Ideology at $t-1$	Type of Transition*
Argentina	1931	Yes	Yes	Center	Coup
Argentina	1976	Yes	Yes	Right	Coup
Austria	1933	Yes	Yes	Right	Takeover
Bolivia	1980	Yes	Yes	Left	Coup
Brazil	1964	Yes	Yes	Left	Coup
Chile	1973	Yes	Yes	Left	Coup
Ecuador	2000	Yes	Yes	Left	Coup
Germany	1933	Yes	No	Right	Takeover
Italy	1922	Yes	No	Center	Takeover
Peru	1990	Yes	Yes	Left	Takeover
Spain	1937	Yes	Yes	Left	Other
Uruguay	1934	Yes	Yes	Right	Takeover
Uruguay	1973	Yes	Yes	Right	Takeover

*The types of democratic breakdown are categorized by Svolik (2014) and include coups, incumbent takeovers, and other forms of transition. Bolivia's transition is not part of Svolik's analysis and was added by the authors.

growth rate more than two standard deviations below the 10-year lagged trend, the effects are even larger. A severe crisis in poor countries with left-wing leadership is predicted to increase probability of democratic breakdown by approximately 25 percentage points ($p = 0.02$). The predicted reduction in democratic survival under right-wing governments is again about 1 percentage point and the effect of recessions is not significant.

In sum, across our definitions of economic crises, including growth rates, deviations from the trend, and indicators of recessions and growth deviations, we find the same results. Poor democracies (i) have an increased likelihood of transitioning to dictatorships following economic downturns, and (ii) this relationship is almost entirely driven by governments led by left-wing heads of government.

5. ILLUSTRATIVE CASES

As we discussed in the beginning of Section 4, we identify 26 democratic breakdowns in our sample of 33 countries between 1870 and 2007, 13 of which occurred in the wake of economic downturns. Table 5 contains a list of these 13 cases, and provides information about the year of the transition to dictatorship (that is, the first year that is coded as authoritarian by Boix, Miller, and Rosato 2013), whether the country experienced a recession and/or was below the 10-year trend of growth in the year before the transition, the ideology of the head of the last democratic government, and the type of transition (coup, incumbent takeover, or other).

In this section, we provide brief descriptions of the six cases in our main sample where a recession that occurred under a left-wing government was followed by a transition to authoritarianism, to determine

whether the theoretical ideas that we introduced in Section 2 indeed explain the breakdown of democracy in the six countries that drive our statistical findings. But before we proceed to the discussion of the first case, Bolivia, we note that among the seven cases in table 5 that did *not* have a left-wing government in power before the transition to authoritarianism, two were governed by centrist governments (and the fall of democracy did result in a shift to the right) and several were incumbent takeovers by the incumbent right-wing party (and not the result of coups), notably Austria and Germany in the 1930s. In other words, some of the same mechanisms that we find in the cases that *support* the argument in section 2 might actually be found in the other cases as well.

The first case that we will consider in more detail is *Bolivia*'s short-lived democratization attempt in 1979–1980.[5] In the 1979 presidential election, held after a quarter of a century of military rule, a left-wing party received the largest number of votes, but no candidate won an absolute majority, and the presidency remained vacant. After a period of further political turmoil, the president of the Chamber of Deputies, Lydia Gueiler Tejadas, was elected as interim president, and she went on to oversee the new general election that was held in 1980. Gueiler's government inherited a three-year-old recession, rising inflation, rampant corruption, and serious shortages in the agricultural sector. Gueiler announced an economic plan that incorporated neoliberal reforms suggested by the IMF, which met with fierce resistance from the biggest trade union, from farmer organizations, and from within Congress. After only eight months in office, Gueiler was removed in a military coup, one of the main aims of which was to prevent the left-wing politician Hernán Siles and the Communist Party from taking office in the wake of the congressional elections that Guelier had called (Crespo 1999, 167–168). To summarize, the economic crisis and the conflicts over economic policy that it resulted in was an important part of the background to the events of 1980, and the military coup was motivated by the military leadership's desire to avoid the combination of a left-wing president and a left-wing Congress.

Brazil's transition to authoritarianism in 1964 is a case that fits well with the theoretical arguments that we formulated in Section 2 (see also Acemoglu and Robinson 2001, 939). In the early 1960s, Brazil went from a period of high growth and high inflation (average GDP growth from 1946 to 1964 was 6.9%; inflation averaged 26.8%) to a period of low growth and even higher inflation (which peaked at 64.3%) (Alston et al. 2013). This was also a period of momentous political changes: the center-right populist Jânio Quadros's election victory in 1960 was the first time in 31 years that executive power was transferred peacefully to a member of the opposition, ending three decades of political hegemony by the president-turned-dictator Getúlio Vargas and his successors. Quadros soon turned to the left, re-establishing relations with

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[5]Bolivia is coded as democratic in 1979 by Boix, Miller, and Rosato (2013), but considered non-democratic according to the Polity IV project (Marshall, Jaggers, and Gurr 2010). For consistency, we rely on Boix, Miller, and Rosato (2013). Our analysis yields substantively unchanged results with alternative data for democracy and democratic transitions.

the Soviet Union and Cuba and mending fences with the left-wing parties. When his right-wing supporters in the legislature withdrew their support from his government coalition, he resigned and was replaced by João Goulart. When the economic problems worsened in 1963, Goulart at first turned to the International Monetary Fund, which requested liberalizing reforms, but after six months, Goulart reneged, accusing the United States, the IMF, and the World Bank of exacerbating Brazil's economic problems (Skidmore 1988, 14), and proposed a left-wing nationalist agenda, including reforms of land-holding, education, taxation, and housing. The military coup was a direct response to this policy shift, and after the coup, left-wing parties were banned under the pretext of protecting Brazil from communism (Skidmore 1988, 4). To summarize, the economic downturn did serve as a pretext for the military coup, and so did the government's left-wing agenda. Moreover, as we hypothesized in 2, one of the effects of the economic downturn was to push the incumbent left-wing government further to the left, increasing the fears of radicalization that motivated the military establishment.

Chile is another case that fits our theory well (and, again, see Acemoglu and Robinson 2001, 939). Unlike several other countries in the region, Chile did not have a tradition of military rule at the time of the 1973 coup. But political polarization had been growing since the 1960s, leading to large ideological shifts whenever the presidency changed hands. In the beginning of the socialist Salvador Allende's presidency in the early 1970s, economic growth was high, but then the economy became mired in a recession. Allende proceeded with his left-wing agenda, nationalizing several industries and redistributing large land holdings. A few months after the parliamentary election of 1973, in which the left-wing parties were once again successful, the Commander-in-Chief of the Chilean Army, Augusto Pinochet, joined a coup d'état that overthrew Allende's government. Both the president's left-wing agenda and the economic crisis were used to legitimize the coup (although the crisis was hardly the underlying reason, since conspiracies against Allende had begun already in 1970–1971, before the economic difficulties began; see de Vylder 1974, 223–224).

The coup in *Ecuador* in 2000 is a less straightforward case. The incumbent head of government, Jamil Mahuad, who had been elected president in 1998, was indeed on the left, and there was indeed a deep crisis: when Mahuad took over, the economy was in turmoil, the banking system was collapsing, and falling oil prices led to decreasing public revenue; in 1999, the economy contracted by 7 percent and inflation rose to 60 percent. But unlike in the case of Brazil in the 1960s, the economic crisis pushed economic policy to the right, not to the left. The government implemented across-the-board budget cuts, and in the early 2000s, the president announced the dollarization of the economy and further liberalizing measures designed to satisfy the IMF. Mahuad was then deposed by a coalition of Ecuador's most powerful indigenous association (CONAIE) and a group of junior military officers, with the intention of pursuing a radical left-wing policy program. But this attempt was blocked by the senior military leadership, which was opposed to the shift to the left. Although the initial coup attempt was not targeted against a leftist incumbent agenda, the "counter-coup" interference by the senior

military leadership did have its origin in their anti-left preferences. The senior military leadership installed the elected vice president as the new president; he went back to the market-liberal agenda of his predecessor (Jokisch and Pribilsky 2002, 76). To summarize, in the case of Ecuador's democratic breakdown in 2000, the economic crisis did play the central role, but unlike in some of the other cases, the coup was not the result of a policy shift to the left; instead, a shift to the right, motivated by the need to secure IMF funding, undermined the support for the president from within his own ranks.

The transition to authoritarianism in *Peru* in the early 1990s occurred in the wake of a very deep economic crisis: between February 1988 and May 1990, Peru's GDP fell by 23 percent. Following the presidential election of 1990, Alberto Fujimori replaced the incumbent left-wing president, Alan García, having defeated the author Mario Vargas Lhosa in the election. Although Fujimori had run a populist campaign, he soon shifted to a neoliberal agenda, but since Fujimori's political party had a weak position in the legislature, the new administration was initially unable to implement significant reforms (Weyland 2000, 485). Already during the election campaign, a group of senior military officers had approached Fujimori with a plan for a military coup (Crabtree 2011, 40), and after the elections, observing the poor showing of Fujimori's party in Congress, the plan was implemented. In sum, the economic crisis was an important part of the explanation for the coup, and although the left-wing ideology of the *previous* president does not appear to have mattered much, congressional resistance to the president's right-wing agenda did matter.

The final case that we will consider is the transition to authoritarianism in *Spain* in the second half of the 1930s, following the Spanish Civil War. As in most of the other cases considered here, the breakdown of democracy was preceded by years of economic difficulties: the Great Depression resulted in a deep and drawn-out economic recession, and when the Civil War began, economic output was still lower than it had been in the late 1920s. Moreover, the redistributive policies of left-wing governments rankled economic elites and the political right, first in the early 1930s, after the transition to democracy in 1931, and then in 1936, when the left returned to power. Clearly, the Spanish Civil War had many causes, but it is arguably no coincidence that the war began after years of economic troubles, just as a left-wing government had won the last election of Spain's Second Republic.

6. Conclusions

In this paper, we have examined the relationship between economic downturns and democratic breakdowns in 33 countries over a long time-period (between 1870 and 2007). The evidence that we have presented suggests that the likelihood of democratic breakdown does increase during recessions, at least in relatively poor countries, but we also add an important qualification: the chief explanation for this pattern is an increased likelihood of coups when left-wing governments are in power during downturns. Where left-wing governments are in power, a recession is associated with an increased likelihood of democratic breakdown, at least in non-consolidated and relatively poor democracies. But where

centrist and right-wing governments are in power, we do not find a statistically or substantively significant recession effect.

We also provide short descriptions of the six democratic breakdowns in which left-wing democratic leaders were replaced by authoritarian governments. In most of these cases, the economic downturn seems to have accelerated the transition to authoritarianism, because it undermined the coalition behind the incumbent government, because it led the government to pursue more radical economic policies, or because it was used as a pretext by groups opposed to democracy. Moreover, in most of these cases, the left-wing orientation of the government was an important factor behind the decisions of some actors – usually the military – to remove the democratically elected leadership.

These patterns are largely consistent with the theoretical model of transitions that was introduced by Acemoglu and Robinson (2001). The absence of cross-country data on the ideological orientation of governments that cover a long period of time have so far made it impossible to test the idea of a conditional relationship between recessions and downturns in a large-N comparative study, but with the data that we have introduced, it has been possible to present evidence that such a relationship exists.

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