

Does Public Support Help Democracy Survive?

Supplementary Materials

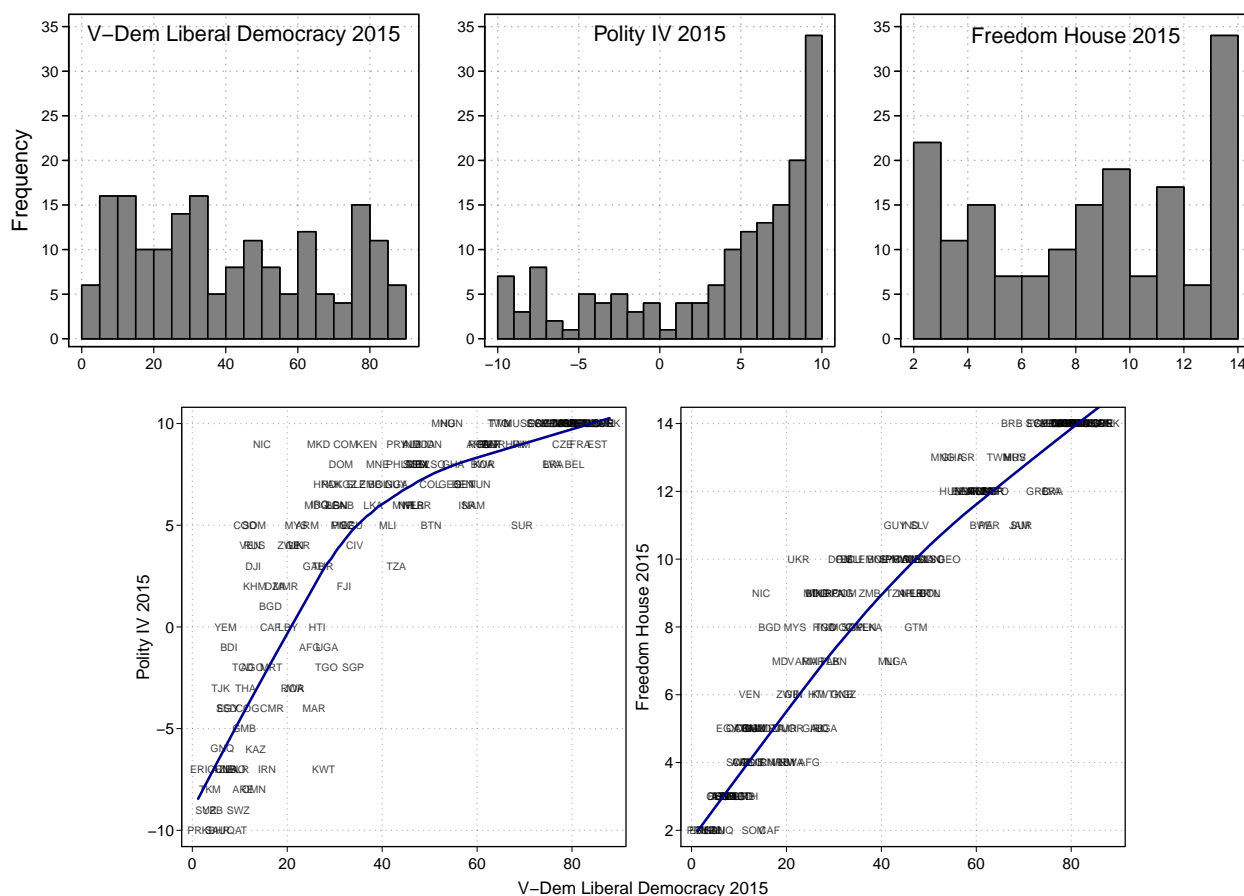
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# 1. Measuring Democracy

Much of the appeal of the V-Dem measure is in its more finely-grained and systematic approach to measurement. However even a simple comparison of V-Dem with the Freedom House (FH) and Polity measures favors V-Dem. Figure S1 compares the V-Dem liberal democracy scale with the combined and reversed FH and the combined Polity IV scales, all for 2015. As the histograms indicate, both FH and Polity show clustering at the top of their respective scales: both are unable to discriminate between countries with very high and merely moderately high levels of democratic rights and institutions. The V-Dem measure, in contrast, does not suffer from this problem.

**Figure S1.** Comparisons of V-Dem, Polity, and Freedom House Democracy Measures in 2015



The scatterplots in the lower part of Figure S1 then demonstrate that the Polity measure, in particular, has a nonlinear relationship with V-Dem liberal democracy. Although Polity provides fairly fine-grained measures of autocracy, it fails to distinguish between countries that are fairly democratic – i.e., most of the world (see also Munck and Verkuilen 2002; Pemstein, Meserve, and Melton 2010). These data are especially inappropriate for our tests, because the hypothesis has generally been that support helps democracy to survive when some level of democracy already exists, which is exactly the kind of regime that is poorly measured by Polity. The scatterplot also reveals that the FH measure is ordinal rather than truly continuous.

## 2. Measuring Democratic Support

### 2.1. Survey Questions Used to Measure Democratic Support

#### 1. Three statements items

- 1.1. Which of these three statements is closest to your own opinion? (AfroBarometer)
  - Democracy is preferable to any other kind of government
  - Under some circumstances, an authoritarian government can be preferable to a democratic one
  - For someone like me, it does not matter what kind of government we have.
- 1.2. Which of the following statements comes closest to your own opinion? (AsianBarometer)
  - For people like me, it does not matter whether we have a democracy
  - Under some circumstances, an authoritarian government can be preferable
  - Democracy is always preferable to any other kind of government
- 1.3. Which of these three statements is closest to your own opinion? (ArabBarometer)
  - Democracy is preferable to any other kind of government
  - Under some circumstances, a nondemocratic government can be preferable
  - For people like me, it does not matter what kind of government we have
- 1.4. Here are three opinions about political systems. Which one comes closest to your own way of thinking? (EuroBarometer)
  - Democracy is the best political system in all circumstances
  - In certain circumstances a dictatorship could be a good thing
  - Whether we live in a democracy or under a dictatorship makes no difference to people like me
- 1.5. With which of the following phrases are you in most agreement? (Latin American Public Opinion Project)
  - For people like me, it doesn't matter whether a regime is democratic or non-democratic
  - Democracy is preferable to any other type of government
  - Under some circumstances an authoritarian government can be preferable to a democratic one
- 1.6. Which of the following statements do you agree with most? (LatinoBarometer)
  - Democracy is preferable to any other kind of government
  - In certain situations, an authoritarian government can be preferable to a democratic one
  - To people like me it doesn't matter whether we have a democratic government or a non-democratic government
- 1.7. With which of the following statements do you agree most? (New Democracies Barometer)
  - Democracy is preferable to any other kind of government
  - Under some circumstances, an authoritarian government can be preferable to a democratic one
  - For people like me, it does not matter whether we have a democratic or a non- democratic regime
- 1.8. Which of these three statements is closest to your own opinion? (Pew Global Attitudes)
  - Democracy is preferable to any other kind of government
  - Under some circumstances, an authoritarian government can be preferable to a democratic one
  - For someone like me, it does not matter what kind of government we have
- 1.9. Which one of the following three statements do you agree with most? (South Asian Barometer)
  - Democracy is preferable to any other kind of government
  - In certain situations, a dictatorial government can be preferable to a democratic one
  - It doesn't matter to people like me whether we have democratic or non-democratic governance

## 2. “Churchill” items

- 2.1. Democracy may have its problems, but it is better than any other form of government. To what extent do you agree or disagree? (ArabBarometer)
- 2.2. Do you agree or disagree with the following statement: Democracy may have its problems, but it is still the best form of government (AsianBarometer).
- 2.3. Please tell me how strongly you agree or disagree with the following statement: Democracy may have problems but it's better than any other form of government (Comparative Study of Electoral Systems)
- 2.4. Democracy may have its problems, but it is better than any other form of government. To what extent do you agree or disagree? (European Values Survey)
- 2.5. With which of the following phrases do you most agree: in general, despite its problems, democracy is the best form of government, there are other forms of government that can be just as good or even better than democracy, don't know (Latin American Public Opinion Project)
- 2.6. Do you strongly agree, agree, disagree or strongly disagree with the following statements: Democracy may have problems but it is the best system of government (LatinoBarometer)
- 2.7. Democracy may have its problems, but it is better than any other form of government. To what extent do you agree or disagree? (World Values Survey)

## 3. Strong leader items

- 3.1. There are many ways to govern a country. Would you disapprove or approve of the following alternatives? Elections and Parliament are abolished so that the president can decide everything. (AfroBarometer)
- 3.2. I will describe different political systems to you, and I want to ask you about your opinion of each one of them with regard to the countrys governance for each one would you say it is very good, good, bad, or very bad? (ArabBarometer)
- 3.3. I will describe different political systems to you, and I want to ask you about your opinion of each one of them with regard to the countrys governance for each one would you say it is very good, good, bad, or very bad? (ArabBarometer)
- 3.4. I'm going to describe various types of political systems. Please indicate for each system whether you think it would be very good, fairly good or bad for this country. Governance by a powerful leader without the restriction of parliament or elections (AsiaBarometer)
- 3.5. Best to get rid of Parliament and elections and have a strong leader who can quickly decide everything. What do you think? (AsianBarometer)
- 3.6. I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? Having a strong leader who does not have to bother with parliament and elections (European Values Survey)
- 3.7. On some occasions, democracy doesn't work. When that happens there are people that say we need a strong leader who doesn't have to be elected through voting. Others say that even if things don't function, democracy is always the best. What do you think? (Latin American Public Opinion Project)
- 3.8. There are people who say that we need a strong leader that does not have to be elected. Others say

that although things may not work, electoral democracy, or the popular vote, is always best. What do you think? (Latin American Public Opinion Project)

- 3.9. Best to get rid of Parliament and elections and have a strong leader who can quickly decide everything. What do you think? (New Democracies Barometer)
- 3.10. Some feel that we should rely on a democratic form of government to solve our country's problems. Others feel that we should rely on a leader with a strong hand to solve our country's problems. Which comes closer to your opinion? (Pew Global Attitudes)
- 3.11. There are different ways in which a country may be governed. I will read out some suggestions. For each of these would you say that you strongly agree, agree, disagree or strongly disagree? We should have a strong leader who does not have to bother about elections (South Asian Barometer)
- 3.12. I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? Having a strong leader who does not have to bother with parliament and elections (World Values Survey)

#### 4. Military rule items

- 4.1. There are many ways to govern a country. Would you disapprove or approve of the following alternatives? The army comes in to govern the country (AfroBarometer)
- 4.2. I'm going to describe various types of political systems. Please indicate for each system whether you think it would be very good, fairly good or bad for this country – Military government (AsiaBarometer)
- 4.3. The army should govern the country. What do you think? (AsianBarometer)
- 4.4. I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? Having the army rule (European Values Survey)
- 4.5. The army should govern the country. What do you think? (New Democracies Barometer)
- 4.6. I'm going to describe various types of political systems and ask what you think about each as a way of governing our country. For each one, would it be a very good, somewhat good, somewhat bad or very bad way of governing this country? The military rules the country (Pew Global Attitudes)
- 4.7. There are different ways in which a country may be governed. I will read out some suggestions. For each of these would you say that you strongly agree, agree, disagree or strongly disagree? The country should be governed by the Army (South Asian Barometer)
- 4.8. I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? Having the army rule (World Values Survey)

#### 5. One party rule items

- 5.1. There are many ways to govern a country. Would you disapprove or approve of the following alternatives? Only one political party is allowed to stand for election and hold office (AfroBarometer)
- 5.2. There are many ways to govern a country. Would you disapprove or approve of the following alternatives? Only one political party is allowed to stand for election and hold office (AsianBarometer)

#### 6. Evaluate democracy items

- 6.1. I will describe different political systems to you, and I want to ask you about your opinion of each one of them with regard to the country's governance – for each one would you say it is very good, good, bad, or very bad? A democratic political system (public freedoms, guarantees equality in political and civil rights, alternation of power, and accountability and transparency of the executive authority). (ArabBarometer)
- 6.2. I'm going to describe various types of political systems. Please indicate for each system whether you think it would be very good, fairly good or bad for this country – A democratic political system (AsiaBarometer)
- 6.3. I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? Having a democratic political system (European Values Survey)
- 6.4. I'm going to describe various types of political systems and ask what you think about each as a way of governing our country. For each one, would it be a very good, somewhat good, somewhat bad or very bad way of governing this country? A democratic system where representatives elected by citizens decide what becomes law (Pew Global Attitudes)
- 6.5. I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country? Having a democratic political system (World Values Survey)
7. Elections items
  - 7.1. There are different ways in which a country may be governed. I will read out some suggestions. For each of these would you say that you strongly agree, agree, disagree or strongly disagree? The country should be governed by those chosen by the people in a fair election (South Asian Barometer)
8. Suitability items
  - 8.1. Suppose there was a scale from 0-10 measuring the extent to which democracy is suitable for your country, with 0 meaning that democracy is absolutely inappropriate for your country and 10 meaning that democracy is completely appropriate for your country. To what extent do you think democracy is appropriate for your country? (ArabBarometer)
  - 8.2. Here is a similar scale of 1 to 10 measuring the extent to which people think democracy is suitable for our country. If 1 means that democracy is completely unsuitable for [name of country] today and 10 means that it is completely suitable, where would you place our country today? (AsianBarometer)
  - 8.3. How suitable is democracy for our country - very suitable, suitable, not suitable or not at all suitable? (South Asian Barometer)
9. Importance items
  - 9.1. How important for you to live in democratically governed country? (European Social Survey)
  - 9.2. How important is it to you to live in a country where honest elections are held regularly with a choice of at least two political parties? Is it very important, somewhat important, not too important or not important at all? (Pew Global Attitudes)

- 9.3. How important is it for you to live in a country that is governed democratically? On this scale where 1 means it is “not at all important” and 10 means “absolutely important” what position would you choose? (World Values Survey)

10. Desire for democracy items

- 10.1. To what extent do you want our country to be democratic now? (AsianBarometer)

## 2.2. Excluded Survey Items

Kurzman (2014) notes that there appear to be a number of serious translation errors in the support for democracy questions used in the 3rd and 4th waves of the World Values Survey. For example, as he describes, the Indonesian survey of 2001 asked respondents their opinion on having military *rules*, rather than military rule. The vast majority of Indonesians unsurprisingly favored having rules. Survey responses from the following items-year-country combinations from the World Values Survey were therefore excluded from the analysis due to evidence of, or suspicion of, poor translations and severe bias:

- Vietnam: Army rule 2001; Strong leader 2001
- Albania: Army rule 1998
- Indonesia: Army rule 2001 & 2006
- Iran: Army rule 2000; Strong leader 2000 & 2005
- India: Strong leader, all years.
- Pakistan: Army rule 1996 & 2001; Strong leader 1996 & 2001
- Kyrgyzstan: Strong leader 2003 & 2011
- Romania: Strong leader 1998, 2005 & 2012
- Egypt: Strong leader 2012

Responses to satisfaction with democracy items (e.g., “on the whole, how satisfied or dissatisfied are you with the way democracy works in [country]?”) were not included in the support for democracy measure. They were instead used to measure satisfaction with democracy (see below). Responses to the following items were also not included:

- Items tapping evaluations of the political and economic performance of democracy (e.g., “Which of the following statements comes closer to your own view? Democracy is capable of solving the problems of our society; democracy can not solve our society’s problems.”)
- Items measuring respondents’ understandings of the term “democracy” (e.g., “For each of the following things, how essential do you think it is as a characteristic of democracy? Governments tax the rich and subsidize the poor.”).
- Items measuring trust or confidence in national institutions (e.g., “I’m going to name a number of institutions. For each one, please tell me how much trust you have in them – Parliament”).

## 2.3. Microlevel Coding of Survey Data

As described below, the latent trait measurement model takes a binomial response, which requires two pieces of information: the number of “trials” and the number of these that were “successful.” I therefore gathered two quantities for each survey question. First, the number of respondents asked each relevant survey question (this was usually, but not always, the full sample size). Second, the



number of respondents providing a response that was supportive of democracy. This may include the response “democracy is preferable to any other kind of government” in the three statements question, disagreeing that the military should rule, or offering a response above the median on a 0-10 scale for the question regarding the importance of democracy to the respondent. It follows that all other possible responses (i.e., the difference between the sample size and the number of supportive respondents) were treated, similarly, as not supportive of democracy. These non-supportive respondents may have actively opposed democracy, (e.g., “an authoritarian government can be preferable to a democratic one”), chosen an intermediate response (e.g., “for someone like me, it does not matter what kind of government we have”), responded with “don’t know,” or refused to provide any response.

## 2.4. Latent Variable Model

Support for democracy is measured using the dynamic Bayesian latent trait model developed by Claassen (2018) for providing “smooth panels” of public opinion. In particular, I use Claassen’s “model 5,” which performed best in validation tests using a held-out dataset. Although Claassen also applies this model to the topic of democratic support, I use an expanded dataset of survey responses here.

The model is as follows. The observed number of respondents  $y$  supporting democracy for each country  $i$ , year  $t$ , and survey item  $k$  is modeled as a binomial distributed count:

$$y_{ikt} \sim \text{Binomial}(s_{ikt}, \pi_{ikt}).$$

A beta prior is then used to model the probability parameter  $\pi$ . This produces a beta-binomial distribution, which allows for some additional dispersion in the observed survey responses beyond that induced by sampling alone.

$$\pi_{ikt} \sim \text{Beta}(\alpha_{ikt}, \beta_{ikt})$$

The two shape parameters of the beta distribution can be reparameterized to an expectation parameter  $\eta$  and a dispersion parameter  $\phi$ :

$$\begin{aligned}\alpha_{ikt} &= \phi \eta_{ikt} \\ \beta_{ikt} &= \phi(1 - \eta_{ikt})\end{aligned}$$

The expectation parameter  $\eta$  is then modeled as a function of the latent country-year estimates  $\theta$ , item parameters  $\lambda$ , and item-country parameters  $\delta$ . The item parameters adjust for the effects of item-specific bias (due to sampling, question wording, etc.), while the item-country parameters adjust for “non-equivalence” bias when the same item has different meanings in different national contexts (e.g., Stegmueller 2011):

$$\begin{aligned}\eta_{ikt} &= \text{logit}^{-1}(\lambda_k + \delta_{ik} + \theta_{it}) \\ \lambda_k &\sim \text{N}(\mu_\lambda, \sigma_\lambda^2) \\ \delta_{ik} &\sim \text{N}(0, \sigma_\delta^2)\end{aligned}$$

Finally, the latent opinion estimates are allowed to evolve smoothly over time by adding a dynamic

linear model, where the current level of latent opinion is a function of the previous year's level plus some random noise:

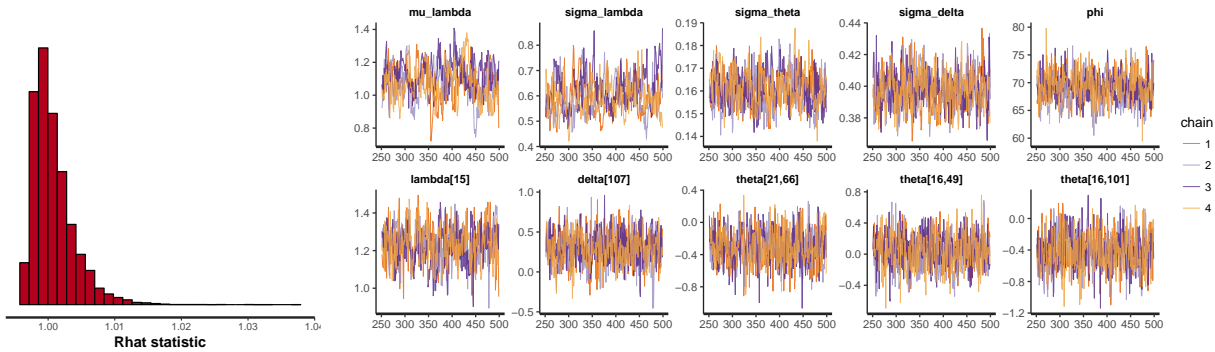
$$\theta_{it} \sim N(\theta_{i,t-1}, \sigma_\theta^2)$$

The estimated variances are given weakly-informative half-Cauchy priors, e.g.,  $\sigma_\lambda \sim C^+(0, 2)$  (and similarly for  $\sigma_\delta$ ,  $\sigma_\gamma$ , and  $\sigma_\theta$ ). The expectation of the item intercepts  $\mu_\lambda$  is given a  $N(1, 2)$  prior while the dispersion parameter  $\phi$ , receives a  $\text{gamma}(4, 0.1)$  prior. The initial value of latent opinion for each country  $\theta_{i1}$  receives a  $N(0, 1)$  prior. Finally, I identified the model by fixing the first item intercept  $\lambda_1$  at a value of 1.

## 2.5. Estimating and Checking the Model

The model is estimated using Bayesian Markov-Chain Monte Carlo (MCMC) methods via Stan software, which implements Hamiltonian Monte Carlo sampling (Carpenter et al. 2017; Stan Development Team 2017). Four parallel chains were run for 500 samples each, with the first 250 samples in each chain used for warm up, and discarded. The remaining 1,000 samples of the posterior density were saved and analyzed further. This number of iterations proved to be more than sufficient for convergence, with the Gelman-Rubin R-hat diagnostic reaching a value close to one for all parameters (Figure S2). Traceplots (also Figure S2) of several parameters indicate the convergence of the four chains for several key parameters.

**Figure S2. Model convergence**

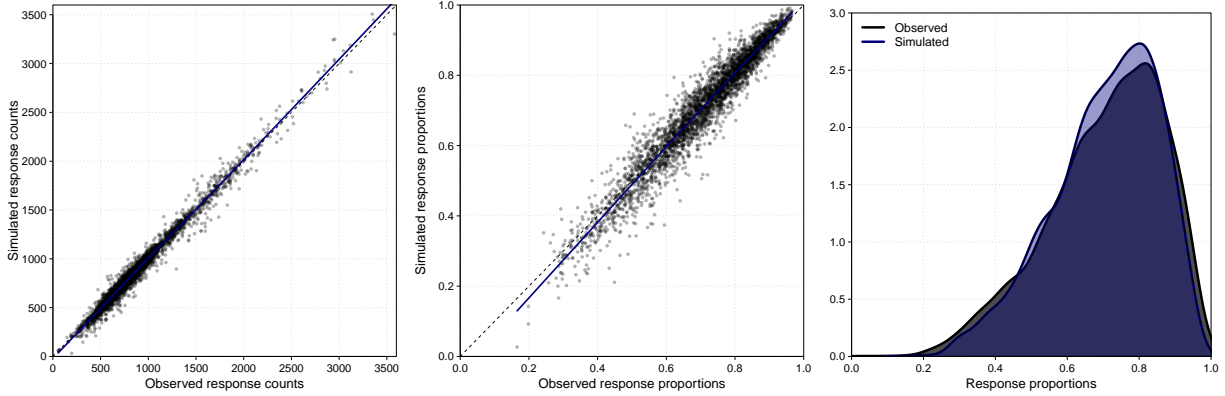


First plot shows the distribution of the Gelman-Rubin rhat statistic for all parameters. Second set of plots are traceplots of selected parameters

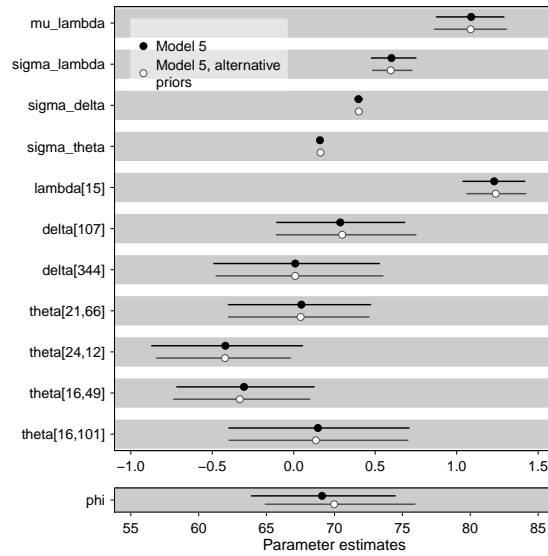
I further checked the model by using it to create a simulated dataset of responses (both as counts and as proportions), and plotted these against the actual survey responses. As the first two panels of Figure S3 show, there is a close correspondence between the simulated data  $\tilde{y}_{ikt}$  and the actual responses  $y_{ikt}$ . The third panel then demonstrates that the distributions of the simulated response proportions follows that of the actual response proportions. These posterior predictive checks therefore suggest that the model fits the observed survey responses.

To test whether these choices of priors were influential, I re-estimated the model using an alternative set of more diffuse priors. For variances, I used inverse-gamma(1, 1) priors; the expectation of the item intercepts receives a more diffuse  $N(1, 5)$  prior, and the beta-binomial dispersion parameter  $\phi$  receives a more diffuse  $\text{gamma}(2, 0.04)$  prior. I plot the means and central

**Figure S3. Posterior predictive checks**



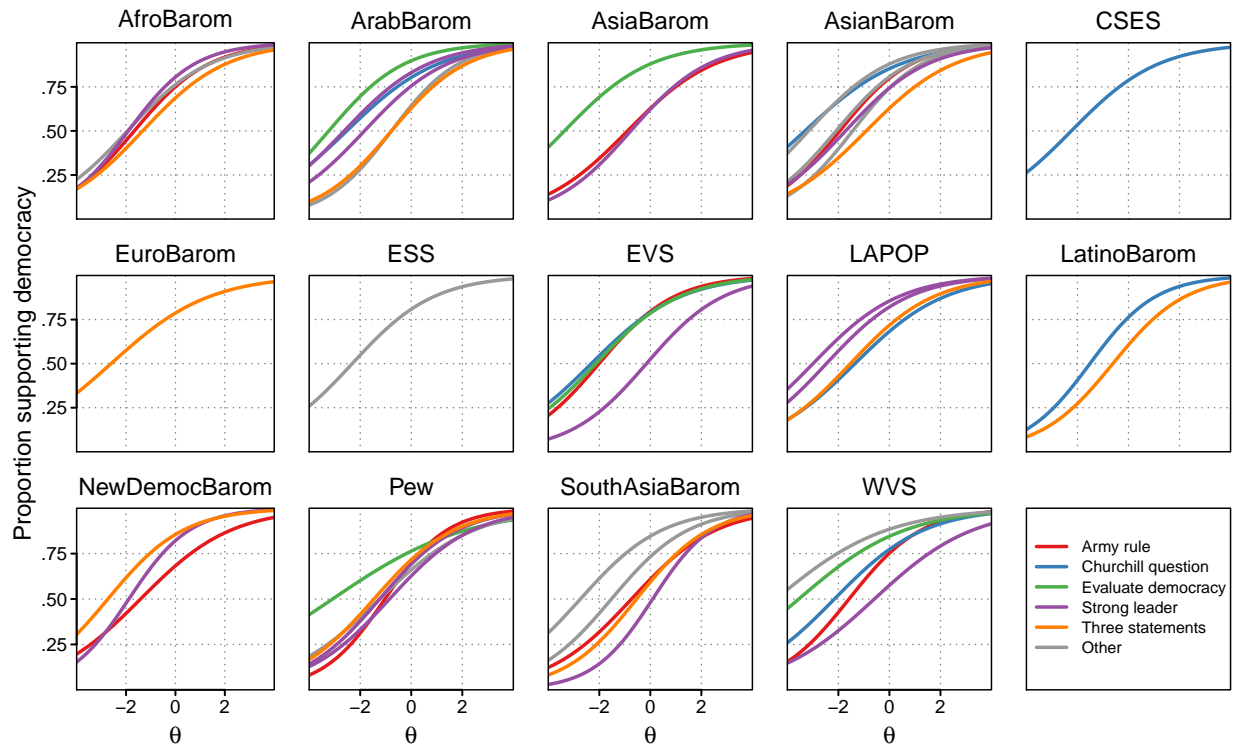
**Figure S4. Prior perturbation tests**



95% of the posterior densities for several parameters in Figure S4. These estimates are substantially similar despite the priors varying.

The model I use to measure latent support, Claassen’s (2018) model 5, includes item intercepts (or difficulty parameters in IRT terminology) but not slopes (i.e., discrimination parameters). His model 6, however also includes slopes / discrimination parameters. Although their inclusion does not improve the performance of the model, they do have a diagnostic use. They allow us to plot the item characteristic curves (ICCs). ICCs display the the relationship between the proportion of a national sample responding supportively toward democracy (y-axis) and the latent estimates of support (x-axis). The vertical alignment of the curves is governed by the item intercepts  $\lambda$ , while the steepness of the curves is governed by the item slopes  $\gamma$ . To aid in interpretation, I group the items by their survey project, and use varying colors to identify the main question wording approach. These ICCs allows us to verify the performance of particular items. In particular, I can evaluate whether items fit the latent construct (in factor analytic terms: whether they “load” on the factor). These item characteristic curves are plotted in Figure S5.

**Figure S5.** Item characteristic curves

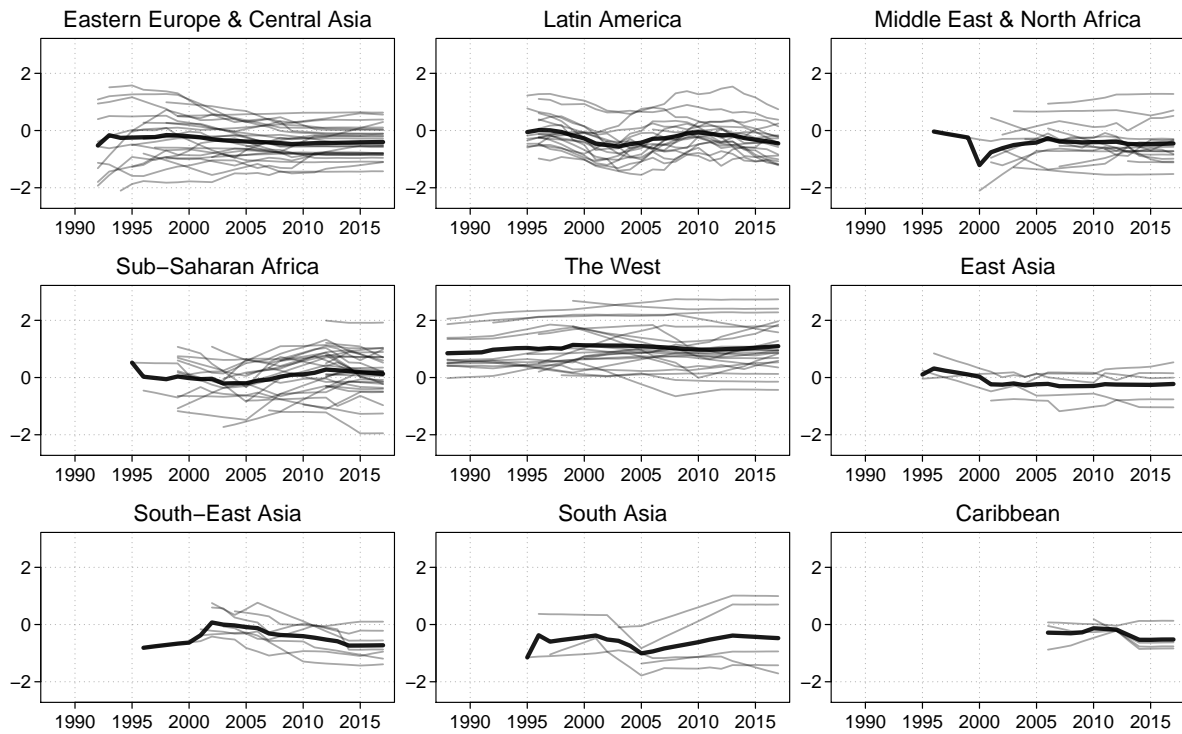


Turning to Figure S5, one can see that all the items display a positive relationship between the latent quantity and the observed responses. All items, in other words, have positive slopes. In addition, most items have slopes of similar magnitude. These are welcome findings, as they indicate that the included survey items do indeed measure the latent construct. It is not a particularly surprising finding, however, as items were selected based on the results of previous analyses of microlevel survey data (e.g. Klingemann 1999; Mattes and Bratton 2007; Rose, Mishler, and Haerpfer 1998). Items that bore some superficial resemblance to support for democracy, but which did not display a deeper empirical relationship with this latent variable were not included in the analysis in the first place.

There are nonetheless a few items with weaker slopes and therefore more tenuous relationships with latent support for democracy. First is the “army rule” item from the New Democracies Barometer and second is the “evaluate democratic political system” item from the AsiaBarometer. Another three come from the World Values Surveys: the items asking respondents to rate the “importance of living in a democracy,” and to evaluate a “strong leader” and a “democratic political system.” This latter survey question has previously been criticized as offering only “lip service” to democracy, rather than deeply-rooted support (Inglehart 2003). In two out of the three survey projects in which it is employed, this type of question does indeed show a weaker relationship with latent support for democracy.

In contrast, two widely-used approaches for measuring support for democracy – the “three statements” and “evaluate army rule” survey questions – perform well across regions and survey projects. Both have pronounced positive slopes, indicating that such questions allow researchers

**Figure S6.** Time Series Plots of Support for Democracy, by Region



Light grey lines indicate individual country time-series of democratic support. Darker bold lines indicate the regional average time-series. Teorell's "politico-geographic" regional definitions are used.

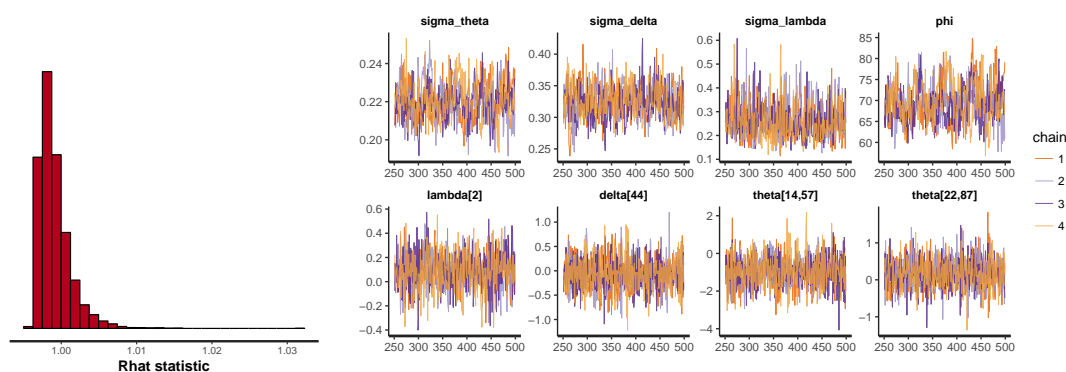
to discriminate between respondents who favor democracy and those who do not. Indeed, national samples show widely-varying levels of agreement with these items as their underlying support for democracy increases: at low levels of support for democracy (two standard deviations below the mean), 25% to 40% of respondents tend to offer the democratic responses to the three statements questions; at high levels (two standard deviations above the mean), around 85% do so.

### 3. Measuring Satisfaction with Democracy

Satisfaction with democracy is measured in a similar fashion to support for democracy. In particular, I gathered all aggregate survey responses to the questions asking respondents how “satisfied” they were with the “performance” or “development” of democracy in their country. There were 14 items, one from each of the 13 cross-national survey projects (The ArabBarometer was the only project which measures support for democracy but not satisfaction), with two items being used, at different times, in the Central and Eastern Europe Barometer.

There were 2,013 responses to satisfaction with democracy questions, from the same number of national surveys, drawn from 143 countries over 43 years. After removing countries with only a single survey, we are left with 132 countries over 43 years.

**Figure S7. Model convergence**

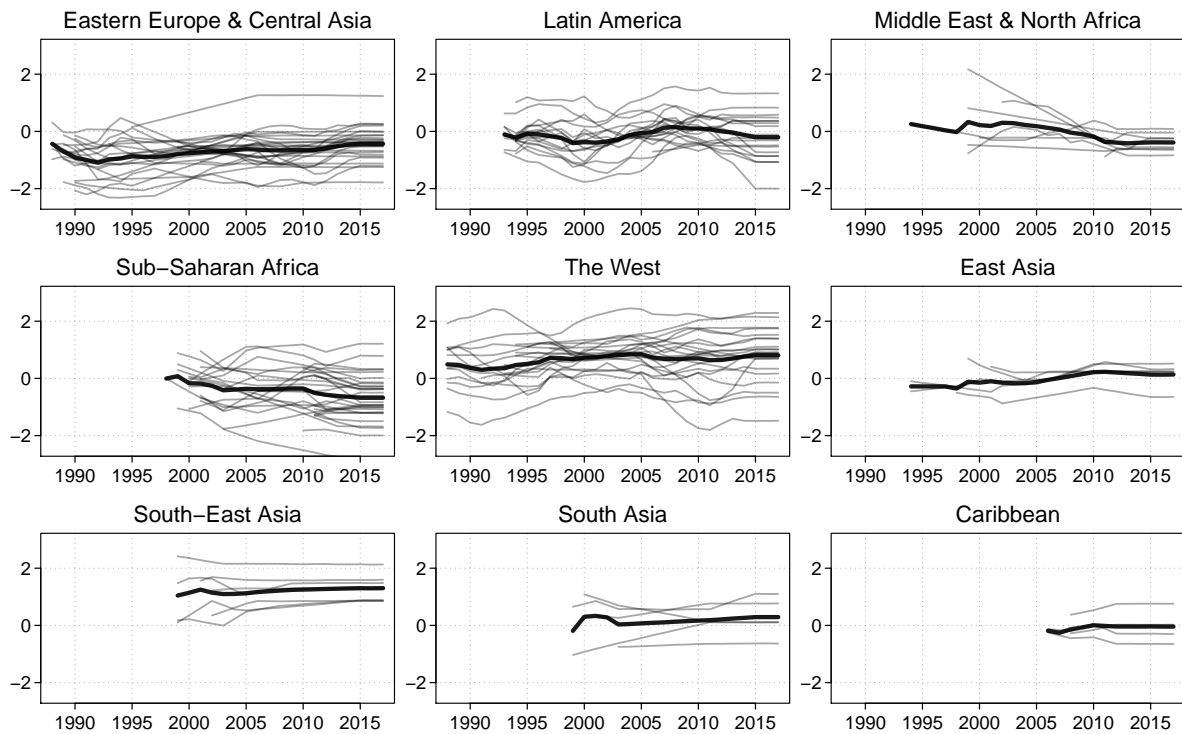


First plot shows the distribution of the Gelman-Rubin rhat statistic for all parameters. Second set of plots are traceplots of selected parameters

To obtain the measures, I again used Stan to fit “model 5” as developed by Claassen (2018), with the same priors as specified for support for democracy. The model converged easily using four chains of 500 samples each, with the first half reserved for warm-up. The distribution of the Gelman-Rubin R-hat diagnostic, and traceplots for selected parameters, are presented in Figure S7.

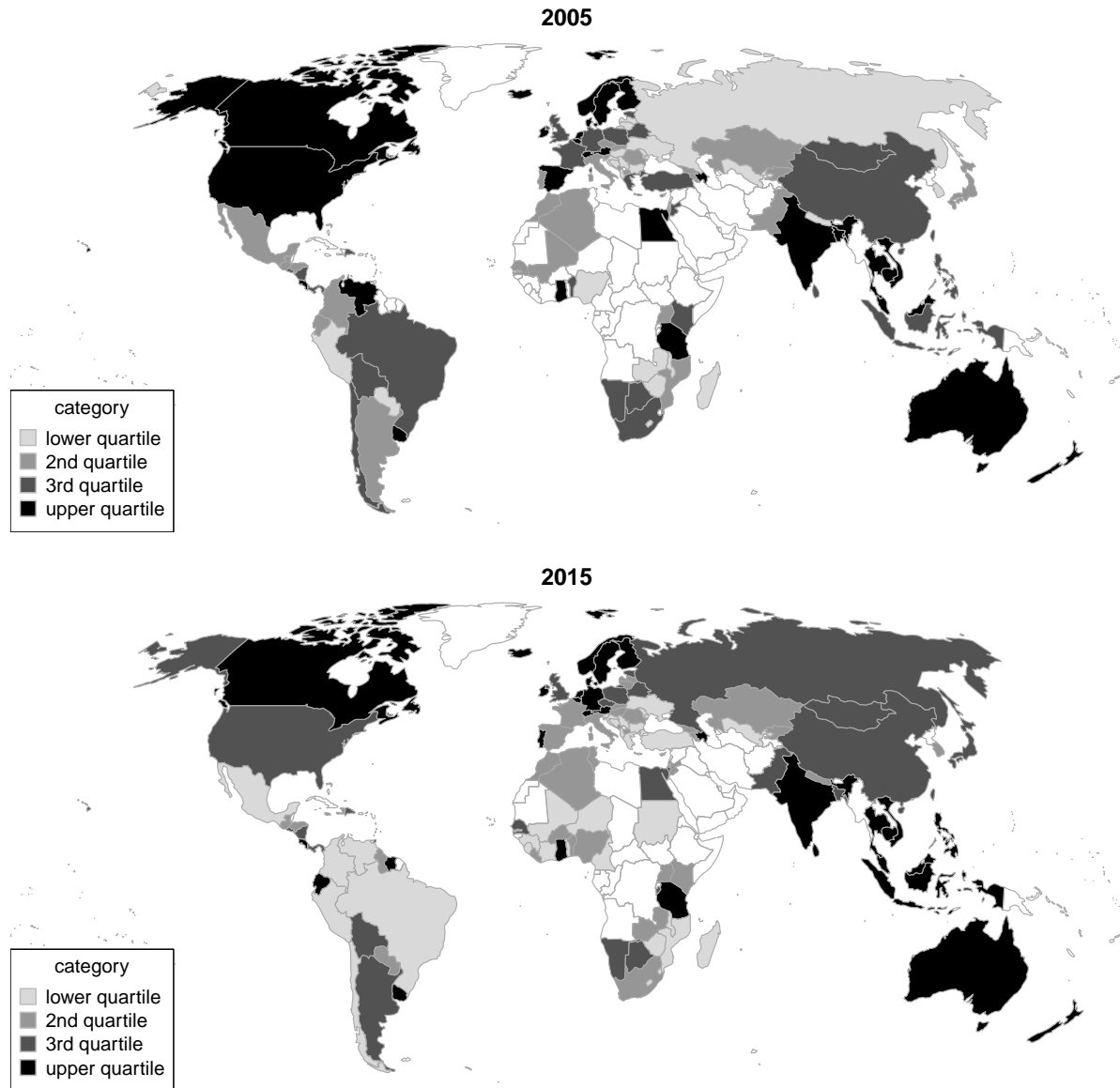
Finally, for comparison with support for democracy, I plot estimates of democratic satisfaction by country in 2005 and 2015 (Figure S9) and by across time, by region (Figure S8).

**Figure S8.** Time Series Plots of Satisfaction with Democracy, by Region



Light grey lines indicate individual country time-series of satisfaction with democracy. Darker bold lines indicate the regional average time-series. Teorell's "politico-geographic" regional definitions are used.

**Figure S9. Mapping Satisfaction with Democracy**



Satisfaction with democracy in 2005 and 2015. Quantiles are calculated across all years for which there are data. Darker shades indicate countries with higher levels of satisfaction. Countries for which no estimates are available in the given year are shaded white.



## 4. Additional Tables

**Table S1.** Descriptive Statistics

| Variable                    | Mean  | Std. Dev. | Min.   | Max.   | <i>N</i> Miss. |
|-----------------------------|-------|-----------|--------|--------|----------------|
| Year                        |       |           | 1989   | 2017   | 0              |
| Liberal democracy           | 52.68 | 25.56     | 3.57   | 90.34  | 0              |
| Democratic support          | 0.04  | 0.89      | −2.10  | 2.74   | 0              |
| log GDP per capita          | 9.26  | 1.07      | 6.33   | 11.55  | 0              |
| GDP per capita growth       | 4.50  | 4.95      | −52.12 | 53.39  | 0              |
| Regional democracy          | 49.05 | 20.20     | 5.63   | 85.22  | 0              |
| Resource dependence         | 0.076 | 0.27      | 0.00   | 1.00   | 0              |
| Percent Muslim              | 17.40 | 31.51     | 0.00   | 99.60  | 0              |
| Satisfaction with democracy | −0.05 | 0.89      | −2.84  | 2.45   | 157            |
| log Inflation               | 1.39  | 1.24      | −4.79  | 13.90  | 0              |
| Corruption                  | 58.34 | 22.09     | 4.00   | 100.00 | 339            |

Year refers to the year in which the dependent variable, liberal democracy, is measured. All other variables are lagged one year. Inflation data comes from the IMF, and is calculated as  $sign(x) \cdot \ln(|x|)$ , where  $x$  is the raw inflation rate. Corruption is measured using the corruption perceptions index from Transparency International, and is reversed so that higher values indicate greater corruption. The sources and measurement of all other variables are described in the main text.

**Table S2. Models With Additional Covariates**

|  | Dependent variable: Level of democracy |         |            |        |
|--|--|---------|------------|--------|
|  | Pooled OLS                             |         | System GMM |        |
| Democracy <sub><i>t</i>-1</sub>                  | 1.181*                                 | 1.183*  | 1.182*     | 1.203* |
|  | (.022)                                 | (.022)  | (.046)     | (.041) |
| Democracy <sub><i>t</i>-2</sub>                  | -.204*                                 | -.205*  | -.208*     | -.186* |
|  | (.022)                                 | (.022)  | (.052)     | (.055) |
| Support <sub><i>t</i>-1</sub>                    | .158                                   |         | .216       |        |
|  | (.091)                                 |         | (.176)     |        |
| Support <sub><i>t</i>-1</sub> , democracies only |  | .235*   |            | .235*  |
|  |  | (.106)  |            | (.117) |
| Support <sub><i>t</i>-1</sub> , autocracies only |  | -.060   |            | -.445  |
|  |  | (.163)  |            | (.491) |
| Log GDP per capita <sub><i>t</i>-1</sub>         | -.118                                  | -.122   | .148       | -.104  |
|  | (.093)                                 | (.093)  | (.234)     | (.209) |
| GDP per capita growth <sub><i>t</i>-1</sub>      | .004                                   | .004    | .006       | .012   |
|  | (.014)                                 | (.014)  | (.015)     | (.016) |
| Regional democracy <sub><i>t</i>-1</sub>         | .003                                   | .003    | .005       | -.012  |
|  | (.005)                                 | (.005)  | (.017)     | (.015) |
| Percent Muslim                                   | -.003                                  | -.004   | -.003      | .000   |
|  | (.002)                                 | (.003)  | (.006)     | (.005) |
| Resource dependence <sub><i>t</i>-1</sub>        | -.223                                  | -.235   | -.478      | -.013  |
|  | (.237)                                 | (.237)  | (.553)     | (.430) |
| Log inflation <sub><i>t</i>-1</sub>              | -.083                                  | -.087   | -.067      | -.084  |
|  | (.059)                                 | (.059)  | (.059)     | (.051) |
| Corruption <sub><i>t</i>-1</sub>                 | -.014*                                 | -.012*  | -.003      | .010   |
|  | (.006)                                 | (.006)  | (.011)     | (.010) |
| Intercept  | 3.147*                                 | 2.969*  |            |        |
|  | (1.077)                                | (1.087) |            |        |
| <i>N</i> observations                            | 2175                                   | 2175    | 2175       | 2175   |
| <i>N</i> countries                               | 135                                    | 135     | 135        | 135    |
| <i>N</i> instruments                             |  |         | 126        | 128    |
| Residual standard error                          | 2.932                                  | 2.931   |            |        |
| Adjusted <i>R</i> <sup>2</sup>                   | .987                                   | .987    |            |        |
| Wooldridge AR(1) test (p-value)                  | .678                                   | .764    |            |        |
| Hansen Test (p-value)                            |  |         | .693       | .731   |
| Arellano-Bond AR(2) test (p-value)               |  |         | .162       | .151   |

\**p* < .05. Pooled OLS models include Beck-Katz panel-corrected standard errors in parentheses. Standard errors for System GMM models incorporate the Windmeijer correction. Democracy is measured using the V-Dem Liberal Democracy index and is scaled from 0 to 100. Support is standardized. The sources and measurement of inflation and corruption are described in Table S1.

**Table S3.** Models of Democratic Upturns and Downturns

|   | Dependent variable:    |                         |                           |
|---|------------------------|-------------------------|---------------------------|
|   | Change in<br>Democracy | Upturns in<br>Democracy | Downturns in<br>Democracy |
| Democracy <sub><i>t</i>-1</sub>             | .141*<br>(.061)        | .081<br>(.050)          | -.060*<br>(.022)          |
| Democracy <sub><i>t</i>-2</sub>             | -.163*<br>(.060)       | -.097<br>(.051)         | .067*<br>(.021)           |
| Support <sub><i>t</i>-1</sub>               | .267*<br>(.078)        | .085<br>(.067)          | -.182*<br>(.046)          |
| Log GDP per capita <sub><i>t</i>-1</sub>    | .015<br>(.075)         | -.068<br>(.072)         | -.083<br>(.068)           |
| GDP per capita growth <sub><i>t</i>-1</sub> | .007<br>(.014)         | -.018*<br>(.009)        | -.025*<br>(.011)          |
| Regional democracy <sub><i>t</i>-1</sub>    | .008<br>(.005)         | .003<br>(.004)          | -.005<br>(.004)           |
| Resource dependence <sub><i>t</i>-1</sub>   | -.367<br>(.206)        | -.452*<br>(.184)        | -.086<br>(.129)           |
| Percent Muslim                              | -.002<br>(.003)        | -.003<br>(.003)         | -.001<br>(.002)           |
| Intercept                                   | .647<br>(.602)         | 2.165*<br>(.582)        | 1.518*<br>(.492)          |
| <i>N</i> countries                          | 135                    | 135                     | 135                       |
| <i>N</i> observations                       | 2435                   | 2435                    | 2435                      |
| Adjusted <i>R</i> <sup>2</sup>              | .036                   | .042                    | .020                      |

\* $p < 0.05$ . Pooled OLS models with Arellano-White robust standard errors in parentheses. Upturns (downturns) in democracy represent positive (negative) changes in democracy, with negative (positive) changes set to 0. Downturns are further multiplied by  $-1$ ; the measure increases as the depth of the downturn increases. See Teorell (2010) for a motivation for this specification.

**Table S4.** Bai Interactive Fixed Effects Models

| Dependent variable: Level of democracy           |                    |                    |
|--|--------------------|--------------------|
| Democracy <sub><i>t</i>-1</sub>                  | -.980*<br>(.125)   | -.985*<br>(.121)   |
| Democracy <sub><i>t</i>-2</sub>                  | -.404*<br>(.089)   | -.411*<br>(.089)   |
| Support <sub><i>t</i>-1</sub>                    | 4.510*<br>(2.010)  |                    |
| Support <sub><i>t</i>-1</sub> , democracies only |                    | 4.890*<br>(2.060)  |
| Support <sub><i>t</i>-1</sub> , autocracies only |                    | -3.250<br>(2.230)  |
| Log GDP per capita <sub><i>t</i>-1</sub>         | -5.470<br>(5.720)  | -9.620<br>(6.800)  |
| GDP per capita growth <sub><i>t</i>-1</sub>      | .062<br>(.041)     | .097*<br>(.047)    |
| Regional democracy <sub><i>t</i>-1</sub>         | -.199<br>(.217)    | -.116<br>(.183)    |
| Resource dependence <sub><i>t</i>-1</sub>        | -.787*<br>(.270)   | -.882<br>(.251)    |
| Intercept  | 236.000*<br>(.024) | 279.000*<br>(.024) |

\* $p < 0.05$ . Standard errors robust to serial correlation and heteroscedasticity in parentheses. See Bai (2009) for details on the method.

**Table S5.** Models of Support and Electoral Democracy

|  | Dependent variable: Electoral democracy |        |            |         |
|--|---|--------|------------|---------|
|  | Pooled OLS                              |        | System GMM |         |
|  | (S5.1)                                  | (S5.2) | (S5.3)     | (S5.4)  |
| Electoral democracy <sub><i>t</i>-1</sub>        | 1.060*                                  | 1.061* | 1.004*     | 1.009*  |
|  | (.061)                                  | (.062) | (.093)     | (.100)  |
| Electoral democracy <sub><i>t</i>-2</sub>        | -.091                                   | -.092  | -.136*     | -.127*  |
|  | (.060)                                  | (.060) | (.043)     | (.040)  |
| Support <sub><i>t</i>-1</sub>                    | .255*                                   |        | .678       |         |
|  | (.086)                                  |        | (.353)     |         |
| Support <sub><i>t</i>-1</sub> , democracies only |   | .275*  |            | .460*   |
|  |   | (.083) |            | (.232)  |
| Support <sub><i>t</i>-1</sub> , autocracies only |   | .179   |            | 1.162   |
|  |   | (.309) |            | (1.006) |
| Log GDP per capita <sub><i>t</i>-1</sub>         | .019                                    | .011   | .665       | .600    |
|  | (.090)                                  | (.093) | (.349)     | (.389)  |
| GDP per capita growth <sub><i>t</i>-1</sub>      | .013                                    | .013   | -.005      | -.002   |
|  | (.018)                                  | (.018) | (.024)     | (.025)  |
| Regional democracy <sub><i>t</i>-1</sub>         | .013*                                   | .013*  | .058       | .052    |
|  | (.006)                                  | (.006) | (.033)     | (.036)  |
| Percent Muslim                                   | -.004                                   | -.004  | -.017      | -.014   |
|  | (.003)                                  | (.004) | (.012)     | (.011)  |
| Resource dependence <sub><i>t</i>-1</sub>        | -.602*                                  | -.602* | -2.045     | -1.793  |
|  | (.301)                                  | (.299) | (1.083)    | (1.100) |
| Intercept  | 1.278                                   | 1.319  |            |         |
|  | (.791)                                  | (.783) |            |         |
| <i>N</i> observations                            | 2435                                    | 2435   | 2435       | 2435    |
| <i>N</i> countries                               | 135                                     | 135    | 135        | 135     |
| <i>N</i> instruments                             |   |        | 122        | 124     |
| Residual standard error                          | 3.539                                   | 3.540  |            |         |
| Adjusted R <sup>2</sup>                          | .977                                    | .977   |            |         |
| Wooldridge AR(1) test (p-value)                  | .004                                    | .004   |            |         |
| Hansen test (p-value)                            |   |        | .140       | .134    |
| Arellano-Bond AR(2) test (p-value)               |   |        | .560       | .546    |

\* $p < .05$ . Pooled OLS models include Arellano robust standard errors in parentheses. Standard errors for System GMM models incorporate the Windmeijer correction. Electoral democracy is measured using the V-Dem Electoral Democracy / Polyarchy index and is scaled from 0 to 100. Support is standardized.

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