## Democracy, Public Support, and Measurement Uncertainty\*

#### April 28, 2021

#### Abstract

Do democratic regimes depend on public support to avoid backsliding? Does public support, in turn, respond thermostatically to changes in democracy? Two prominent recent studies (Claassen 2020a, 2020b) reinvigorated the classic hypothesis on the positive relationship between public support for democracy and regime survival—and challenged its reciprocal counterpart—by using a latent variable approach to measure mass democratic support from cross-national survey data. But such approaches come with concomitant measurement uncertainty, and neither study incorporated this uncertainty into its analyses. In this letter, we correctly take this uncertainty in account and show that there is no support for the conclusion of either study. We then work to minimize the measurement uncertainty in public support by bringing additional survey data and a superior model of public opinion. Even with these improvements, however, our analyses fail to yield evidence in support of either hypothesis, underscoring the necessity of accounting for measurement uncertainty. [149/150 words]

(Word count: 3628)

It has long been argued that democratic regimes and public support for them are mutually reinforcing: that high levels of public support ensure democracies remain strong, and that experience with democratic governance generates robust public support (see, e.g., Lipset 1959; Easton 1965). But the evidence for either part of this claim has been decidedly mixed. Countries with greater democratic support have been found to become stronger and more stable democracies (e.g., Inglehart and Welzel 2005, 251–54) and just the opposite (Fails and Pierce 2010, 182–83). Similarly, studies have alternately found that more experience with democracy yields more democratic support (e.g., Fails and Pierce 2010, 183; Wuttke, Gavras, and Schoen 2020b, 5–6) or instead that long-established democracies are suffering from democratic fatigue (e.g., Denemark, Donovan, and Niemi 2016; Foa and Mounk 2017).

One important reason for these mixed results is the difficulty in measuring democratic support over time and across many countries. Public support for democracy cannot be directly observed, and its incorrect measurement will limit inferences about the relationships between public opinion and institutional development. Further, the survey data available across countries and over time

<sup>\*</sup>The authors contributed equally to this work. Corresponding author: yuehu@mail.tsinghua.edu.cn. Current version: April 28, 2021.

on support for democracy—or indeed most topics in public opinion—are sparse and incomparable, greatly hindering broadly comparative research. Recently, a few pioneering studies have sought to overcome the hurdle of sparse and incomparable data by developing latent variable measurement models of public opinion (see Caughey, O'Grady, and Warshaw 2019; Claassen 2019; Solt 2020b). A pair of prominent recent works took advantage of this latent variable approach to measure democratic support for over one hundred countries for up to nearly three decades and to then assess, respectively, its consequences for and roots in democratic change (Claassen 2020a, 2020b). These works concluded, first and supporting the classic argument, that mass support had a positive impact on democratic change, especially the endurance of democracy (Claassen 2020a, 127–30), and, second and directly contrary to it, democratic change has a thermostatic effect on public support, that is that, rather than generating their own support, deepening democracy provokes a backlash and it is instead democratic backsliding that calls forth greater public support (Claassen 2020b, 46–50).

The models employed in these studies' analyses, though, do not account for uncertainty in their measurement of democratic support. Because they are unobserved, latent variables are inherently accompanied by measurement uncertainty. To leave this uncertainty unacknowledged is to make the implausible assumption that the latent variables are measured perfectly, an assumption which distorts both statistical and substantive inference (see, e.g., Crabtree and Fariss 2015; Juhl 2019).

In this letter, we reexamine the classic arguments about support for democracy and democratic change tested in these two pieces while correcting this oversight. In addition to incorporating the measurement uncertainty, we also sought to reduce it by employing a superior model of public opinion, the Dynamic Comparative Public Opinion (DCPO) model developed by Solt (2020b), and more data to estimate democratic support for 144 countries for up to 33 years between 1988 and 2020. Our analyses reveal that the significant relationships between public support and democratic change disappear once measurement uncertainty is taken into account, both in replications with the studies' original data and in our extension DCPO analyses that incorporate additional data. That is, once measurement uncertainty is accounted for, there is no empirical support for either claim put forward in these two works: declining democratic support does not signal subsequent democratic backsliding, and changes in democracy do not spur a thermostatic response in democratic support.

There are many plausible explanations for these null results, both methodological and theoretical. Methodologically, one possible issue is that support for democracy is multidimensional, and the survey questions used to measure it simply do not capture all of the dimensions relevant to democratic change, such as commitments to political equality and freedom of expression (see Schedler and Sarsfield 2007; Wuttke, Schimpf, and Schoen 2020). Another is that the relationships among these survey items have varied substantially over time (see Wuttke, Gavras, and Schoen 2020a); this would violate the assumptions of the public opinion models used and would yield faulty estimates of democratic support. A third is that these survey questions do not ask respondents how they prioritize democracy relative to other values with which it may come into conflict, such as their partisanship, and so miss capturing the true extent of support democracy would find among the public when public support was actually needed (see Carey et al. 2020; Graham and Svolik 2020; McCoy, Simonovits, and Littvay 2020).

From a theoretical perspective, the effect of democracy on public support may depend not on its mere existence but on its effectiveness (see Magalhães 2014) and particularly with regard to redistribution (see Krieckhaus et al. 2014). Similarly, the effect of public support on democracy may depend on the extent to which those who support democracy are also dissatisfied with the current regime's performance; that is, that it is not democratic support that is important to democratic change, but rather unsatisfied democratic demand (see Qi and Shin 2011). Of course, it could in fact be that democratic change does not actually depend on public opinion of any sort at all but instead is an elite-driven phenomenon (see, e.g., Levitsky and Ziblatt 2018).

We draw two conclusions, one methodological and one substantive. As latent variable measurement models become more commonly used, it is absolutely necessary for researchers employing them to incorporate the associated uncertainty into analyses. And, at a time when democracy as seen as under threat around the world (e.g., Diamond 2015), taken together, Claassen (2020a, 2020b) send what is ultimately a reassuring message: the fate of democracy rests with us, the public, and when democratic institutions are undermined, we will swing to their support and constitute "an obstacle to democratic backsliding" (Claassen 2020b, 51). Both of these assertions may well be true, but the evidence we have, properly assessed, does not provide support for them. There is no room for complacency.

#### 1 Method

We proceed in three steps. In our first step, we reproduce the original analyses of Claassen (2020a, 2020b), which included only the point estimates of the latent variable of democratic support and

so exclude its measurement uncertainty. In the second, we collect the original cross-national survey data, replicate the latent variable measure of democratic support used in the two articles, and conduct the articles' analyses again, this time maintaining the entire distribution of estimates of democratic support in each country-year. As our third step, we collect even more survey data—increasing these source data observations by one-fourth—and re-estimate democratic support using the superior DCPO measurement model, then conduct the two articles' analyses once more, again maintaining the full distribution of estimates to preserve measurement uncertainty.

### 1.1 Incorporating Uncertainty

Although measurement uncertainty has yet not attracted attention in the field of comparative public opinion (see, in addition to the works examined here, O'Grady and Abou-Chadi 2019), latent variables are estimated with a quantifiable amount of measurement uncertainty, and ignoring that uncertainty in analyses can bias coefficient estimates and standard errors. In light of this, recent studies measuring other latent variables have recommended incorporating their measurement uncertainty in analyses (see Solis and Waggoner 2020, 18; Gandhi and Sumner 2020, 1553), and research examining the consequences of public opinion in the United States has done so (see, e.g., Kastellec et al. 2015, 791–92; Caughey and Warshaw 2018, 254).

Therefore, after we replicate the original analyses that used only the point estimates of democratic support, we incorporate the full distribution of the latent variable estimates. To do this, we replicate the latent variable estimation from the original survey data, duplicate each article's analysis dataset 1,000 times, and assign to each a different random draw from the posterior distribution of public democratic support. Then we perform each analysis repeatedly on its respective collection of datasets, and combine the results following the rules set out in Rubin (1987; see, e.g., Schnakenberg and Fariss 2014; Crabtree and Fariss 2015).

#### 1.2 Better Estimates of Democratic Support and More Data

As a further test of the classic arguments on democracy and public support, we apply the superior DCPO model to a bigger data set. The DCPO model has several advantages over the Classen (2019) model used in Classen (2020a, 2020b). First, while the Classen (2019) model dichotomizes responses and so discards some information provided by 50 of the 52 survey items employed in Classen (2020a, 2020b), the DCPO model makes use of all of the information available from

these ordinal items (Solt 2020b, 5). Second, as the DCPO model includes both parameters for the dispersion of each survey item and for the standard deviation of aggregate public opinion in each country-year, it is a complete population-level item-response model and so, unlike the Claassen (2019) model, is explicitly derived from an individual-level model of survey responses (Solt 2020b, 3–4; see also McGann 2014). Third, to produce more sensible estimates of uncertainty for observations at the extremes of the scale (see Linzer and Staton 2015, 229), the DCPO model places bounds on its estimates of public opinion (Solt 2020b, 8). Further commending the DCPO model to us—and demonstrating that its advantages make a difference—the validation tests in Solt (2020b, 10–12) reveal that it fits survey data on democratic support better than the Claassen (2019) model does.

In addition to applying the superior DCPO model, we also assembled as much available data on democratic support as possible. We employed 4690 national opinions on democracy from 1834 national surveys, representing a 26.2% and 33.3% increase respectively over the 1165 opinions and 1376 national surveys used in Claassen (2020a, 2020b). We used the DCPO package for R (Solt 2020a) to estimate the DCPO model on this expanded dataset.

#### 2 Results

Figure 1 presents the reanalyses of the hypothesis that public support influences the level of democracy, with democratic support pooled for all countries (Claassen's 2020a, 128, Model 1) in the left panel and democratic support separated by regime type (Model 2) on the right. The uppermost set of results replicate Claassen (2020a), including by excluding measurement uncertainty, and reproduce that article's findings. The middle results introduce a single change: the uncertainty in the measurement of public support is taken into account. In both models, the positive coefficients for democratic support are no longer statistically significant. The bottom results also incorporate uncertainty but additionally replace the Claassen (2019) estimates of support with those based on DCPO and the expanded dataset; this change works to increase the number of observations analyzed as well. Although the confidence intervals shrink considerably, the coefficient estimates move much closer to zero; the hypothesis remains unsupported.

The importance of accounting for the measurement uncertainty appear more evident when the relevant variable plays as the dependent variable. In Figure 2, we examine the thermostatic model

<sup>&</sup>lt;sup>1</sup>These figures represent the survey data actually used in estimating public support for democracy; as in Claassen (2020a, 2020b), countries for which two separate years of survey data were not available were excluded.

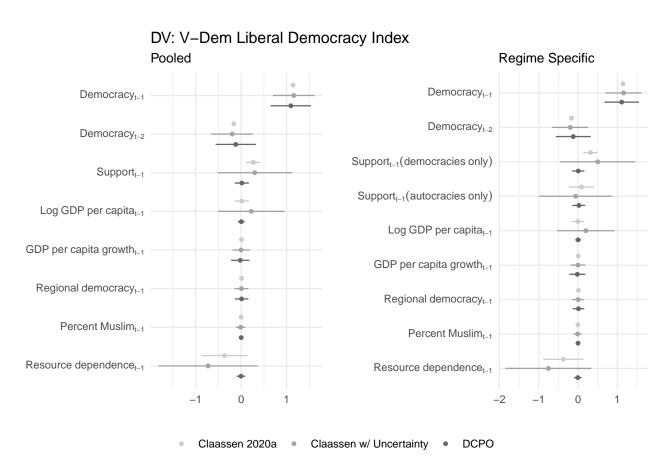


Figure 1: The Effect of Public Support on Democracy

of democratic support per Claassen (2020b, 47, Models 1.1 and 1.2). The negative coefficient estimates of change in liberal democracy in the top set of results, which do not take uncertainty into account, imply that democratic mood decreases as democracy increases and vice versa. However, the middle results demonstrate that this thermostatic effect, too, does not hold after the measurement uncertainty is accounted for. And again, the bottom results reveal that the additional data and superior DCPO measurement model of our extension do not provide support for the original conclusion.

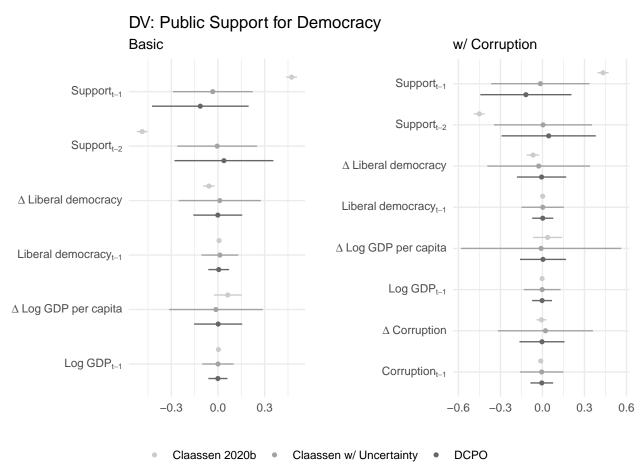


Figure 2: The Effect of Democracy on Public Support

### 3 Discussion

In short, the conclusions of Claassen (2020a, 2020b) that public support has a positive effect on democracy and democracy a negative effect on support are not empirically supported once measurement uncertainty is taken into account, even when a superior estimate of public support and more data are used.

There are several potential methodological explanations for these null results. One issue is that the survey items employed—which ask respondents to assess the desirability or appropriateness of democracy, to compare democracy to some undemocratic alternative, or to assess one of these alternatives—may not capture every aspect of democratic support necessary for it to play its hypothesized roles in the classic theory. If only those who profess to prefer democracy to its alternatives and also value freedom of expression, freedom of association, and pluralism of opinion will take appropriate action when democracy is threatened, then this measure is inadequate to its purpose (see, e.g., Schedler and Sarsfield 2007). Moreover, given the multi-faceted nature of democratic attitudes, even the inclusion of such questions in unidimensional public opinion models such as those provided by Classen (2019) or Solt (2020b) are unlikely to be sufficient (see, e.g., Wuttke, Schimpf, and Schoen 2020). Another issue is that even if these survey questions do capture support for the generic concept of democracy, these measurement models might still be incapable of suitably capturing democratic support due to the variation in understanding the concept across countries or over time within countries (Wuttke, Gavras, and Schoen 2020a). Yet another is that this measure provides no assessment of the relative importance the public affords democracy. It provides no information on the extent to which other values, such as policy preferences or partisanship, weigh more heavily—and there is growing evidence that, at least in the United States, there are many for whom these other considerations excuse substantial transgressions against democracy (see Bartels 2020; Carey et al. 2020; Graham and Svolik 2020; McCoy, Simonovits, and Littvay 2020).

There are theoretical explanations for the null results as well. With regard to how levels of democracy affect public support, we note that even the proponents of the classic argument did not contend that the mere existence of democratic institutions, no matter how consistently feckless and ineffective, would generate support among the public: instead, they maintained, public support would be gained through experience with government performance that was generally effective (Lipset 1959, 86–89; Easton 1965, 119–20). There is some empirical support for this, with government effectiveness positively related to public support among democracies and negatively related in non-democracies (Magalhães 2014). The finding of Krieckhaus et al. (2014) that income inequality is strongly negatively related to public support in democracies suggests that performance regarding redistribution is particularly important. Relatedly, on the reverse part of the classic argument, Qi and Shin (2011) suggests that democratic support alone cannot be expected to generate democratic change and oppose backsliding. Instead, that work contends, it is the combination of democratic support and dissatisfaction with current regime performance that generates demand for greater

democracy. And we must be open to the possibility that no theoretical elaboration, no respecification of these models will reveal relationships between public opinion and democracy. Democratic backsliding may simply be primarily a matter of elite decisionmaking (see, e.g., Levitsky and Ziblatt 2018). Regardless, these explanations indicate that there remains much work to be done in the empirical study of public support and democracy.

#### 4 Conclusion

In this letter, we reexamined the findings from Claassen (2020a, 2020b), two articles that maintain that public support helps the survival of democracy and democratic development has a thermostatic effect on public support. We demonstrated the importance of incorporating measurement uncertainty in analyzing the relationship between public support and democracy. Taking uncertainty into account rendered both articles' conclusions without empirical support, even when we employed the more sophisticated DCPO measurement model and additional data.

This points to the absolute necessity of incorporating measurement uncertainty into analyses that include latent variables. As the use of latent variables grows more common in political science, both researchers and readers should be aware that these variables' concomitant measurement uncertainty cannot be neglected.

The null results reached in this letter could arise from several sources. We identified a number of potential shortcomings in the measurement of democratic support and ways in which the analysis models might be underspecified. All of these could and should be explored in future research, though there are also theoretically grounded reasons to suspect that the relationships are in fact negligible. In any event, the sanguine assessment that readers may draw from Claassen (2020a, 2020b)—that the fate of democracies depend on public support, and when eroded, their publics will rally to them—is not supported by the current evidence. Those who would defend democracy have no grounds to be complacent.

#### References

Bartels, Larry M. 2020. "Ethnic Antagonism Erodes Republicans' Commitment to Democracy." Proceedings of the National Academy of Sciences 117 (37): 22752–59.

Carey, John, Katherine Clayton, Gretchen Helmke, Brendan Nyhan, Mitchell Sanders, and Susan

- Stokes. 2020. "Who Will Defend Democracy? Evaluating Tradeoffs in Candidate Support Among Partisan Donors and Voters." *Journal of Elections, Public Opinion and Parties*, 1–16.
- Caughey, Devin, Tom O'Grady, and Christopher Warshaw. 2019. "Policy Ideology in European Mass Publics, 1981–2016." American Political Science Review 113 (3): 674–93.
- Caughey, Devin, and Christopher Warshaw. 2018. "Policy Preferences and Policy Change: Dynamic Responsiveness in the American States, 1936–2014." *American Political Science Review* 112 (2): 249–66.
- Claassen, Christopher. 2019. "Estimating Smooth Country-Year Panels of Public Opinion." *Political Analysis* 27 (1): 1–20. https://doi.org/10.1017/pan.2018.32.
- ———. 2020a. "Does Public Support Help Democracy Survive?" American Journal of Political Science 64 (1): 118–34.
- ——. 2020b. "In the Mood for Democracy? Democratic Support as Thermostatic Opinion." American Political Science Review 114 (1): 1–18. https://doi.org/10.1017/S0003055419000558.
- Crabtree, Charles D., and Christopher J. Fariss. 2015. "Uncovering Patterns Among Latent Variables: Human Rights and de Facto Judicial Independence." Research & Politics 2 (3): 1–9.
- Denemark, David, Todd Donovan, and Richard G. Niemi. 2016. "The Advanced Democracies: The Erosion of Traditional Democratic Citizenship." In *Growing up Democratic: Does It Make a Difference?*, edited by David Denemark, Robert Mattes, and Richard G. Niemi, 181–206. Boulder: Lynne Rienner.
- Diamond, Larry. 2015. "Facing up to the Democratic Recession." *Journal of Democracy* 26 (1): 141–55.
- Easton, David. 1965. A Systems Analysis of Political Life. New York: Wiley.
- Fails, Matthew D., and Heather Nicole Pierce. 2010. "Changing Mass Attitudes and Democratic Deepening." *Political Research Quarterly* 63 (1): 174–87.
- Foa, Roberto Stefan, and Yascha Mounk. 2017. "The Signs of Deconsolidation." *Journal of Democracy* 28 (1): 5–15.
- Gandhi, Jennifer, and Jane Lawrence Sumner. 2020. "Measuring the Consolidation of Power in Nondemocracies." *Journal of Politics* 82 (4): 1545–58. https://doi.org/10.1086/708683.

- Graham, Matthew H., and Milan W. Svolik. 2020. "Democracy in America? Partisanship, Polarization, and the Robustness of Support for Democracy in the United States." *American Political Science Review* 114 (2): 392–409.
- Inglehart, Ronald, and Christian Welzel. 2005. Modernization, Cultural Change, and Democracy. Cambridge: Cambridge University Press.
- Juhl, Sebastian. 2019. "Measurement Uncertainty in Spatial Models: A Bayesian Dynamic Measurement Model." *Political Analysis* 27 (3): 302–19.
- Kastellec, Jonathan P., Jeffrey R. Lax, Michael Malecki, and Justin H. Phillips. 2015. "Polarizing the Electoral Connection: Partisan Representation in Supreme Court Confirmation Politics." Journal of Politics 77 (3): 787–804.
- Krieckhaus, Jonathan, Byunghwan Son, Nisha Mukherjee Bellinger, and Jason M. Wells. 2014. "Economic Inequality and Democratic Support." *Journal of Politics* 76 (1): 139–51.
- Levitsky, Steven, and Daniel Ziblatt. 2018. How Democracies Die: What History Tells Us about Our Future. London: Viking.
- Linzer, Drew A., and Jeffrey K. Staton. 2015. "A Global Measure of Judicial Independence, 1948–2012." Journal of Law and Courts 3 (2): 223–56. https://doi.org/10.1086/682150.
- Lipset, Seymour Martin. 1959. "Some Social Requisites of Democracy: Economic Development and Political Legitimacy." *American Political Science Review* 53 (1): 69–105.
- Magalhães, Pedro C. 2014. "Government Effectiveness and Support for Democracy." European Journal of Political Research 53 (1): 77–97.
- McCoy, Jennifer, Gábor Simonovits, and Levente Littvay. 2020. "Democratic Hypocrisy: Polarized Citizens Support Democracy-Eroding Behavior When Their Own Party Is in Power." PsyArXiv https://psyarxiv.com/vrn85/.
- McGann, Anthony J. 2014. "Estimating the Political Center from Aggregate Data: An Item Response Theory Alternative to the Stimson Dyad Ratios Algorithm." *Political Analysis* 22 (1): 115–29.
- O'Grady, Tom, and Tarik Abou-Chadi. 2019. "Not so Responsive After All: European Parties Do Not Respond to Public Opinion Shifts Across Multiple Issue Dimensions." Research & Politics

- 6 (4): 1-7.
- Qi, Lingling, and Doh Chull Shin. 2011. "How Mass Political Attitudes Affect Democratization: Exploring the Facilitating Role Critical Democrats Play in the Process." *International Political Science Review* 32 (3): 245–62.
- Rubin, Donald B. 1987. Multiple Imputation for Nonresponse in Surveys. New York: J. Wiley & Sons.
- Schedler, Andreas, and Rodolfo Sarsfield. 2007. "Democrats with Adjectives: Linking Direct and Indirect Measures of Democratic Support." European Journal of Political Research 46 (5): 637–59.
- Schnakenberg, Keith E., and Christopher J. Fariss. 2014. "Dynamic Patterns of Human Rights Practices." *Political Science Research and Methods* 2 (1): 1–31.
- Solis, Jonathan A., and Philip D. Waggoner. 2020. "Measuring Media Freedom: An Item Response Theory Analysis of Existing Indicators." *British Journal of Political Science* FirstView (June): 1–20. https://doi.org/10.1017/S0007123420000101.
- Solt, Frederick. 2020a. "DCPO: Dynamic Comparative Public Opinion." Available at the Comprehensive R Archive Network (CRAN). https://CRAN.R-project.org/package=DCPO.
- ——. 2020b. "Modeling Dynamic Comparative Public Opinion." SocArXiv 10.31235/osf.io/d5n9p.
- Wuttke, Alexander, Konstantin Gavras, and Harald Schoen. 2020a. "Have Europeans Grown Tired of Democracy? New Evidence from Eighteen Consolidated Democracies, 1981–2018." British Journal of Political Science FirstView: 1–13.
- ———. 2020b. "Leader of the Free World or Pioneer in Democracy's Decline? Examining the Democratic Deconsolidation Hypothesis on the Mass Level in East and West Germany." Research & Politics 7 (1): 1–10.
- Wuttke, Alexander, Christian Schimpf, and Harald Schoen. 2020. "When the Whole Is Greater Than the Sum of Its Parts: On the Conceptualization and Measurement of Populist Attitudes and Other Multidimensional Constructs." American Political Science Review 114 (2): 356–74.

# Online Supplementary Materials

# A Numeric Results for Replicating Claassen (2020a)

	Pooled OLS 1	Pooled OLS 2	GMM 1	GMM 2
(Intercept)	0.647	0.765		
	(0.947)	(0.998)		
Democracy[t-1]	1.141***	1.142***	1.091***	1.095***
	(0.080)	(0.080)	(0.079)	(0.083)
Democracy[t-2]	-0.163***	-0.164***	-0.203***	-0.200***
	(0.080)	(0.079)	(0.051)	(0.050)
Support[t-1]	0.267***		0.881**	
	(0.094)		(0.366)	
$Log{\sim}GDP{\sim}per{\sim}capita[t\text{-}1]$	0.015	-0.001	0.388**	0.366**
	(0.123)	(0.130)	(0.174)	(0.186)
$GDP \sim per \sim capita \sim growth[t-1]$	0.007	0.007	-0.016	-0.014
	(0.017)	(0.017)	(0.020)	(0.021)
$Regional \sim democracy[t-1]$	0.008*	0.008	0.055**	0.051*
	(0.005)	(0.004)	(0.028)	(0.030)
$Percent{\sim}Muslim[t{\text -}1]$	-0.002	-0.002	-0.014	-0.013
	(0.003)	(0.003)	(0.009)	(0.009)
$Resource \sim dependence[t-1]$	-0.367	-0.373	-1.196*	-1.128
	(0.244)	(0.242)	(0.683)	(0.694)
Num.Obs.	2435	2435	4735	4735
R2	0.986	0.986		
R2 Adj.	0.986	0.986		
n.inst			122.000	124.000

<sup>\*</sup> p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

B Numeric Results for Replicating Claassen (2020b)