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David Andersen and Suthan Krishnarajan *

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Economic Crisis, Bureaucratic Quality and Democratic Breakdown

Why do economic crises sometimes lead to democratic breakdown and sometimes not? To answer this question, we bring in a new conditioning factor. We propose that bureaucracies with higher quality – implying more competent, efficient and autonomous employees – to a greater extent shield the masses from impoverishment and unjust distribution of resources. This dampens anti-regime mass mobilization, which decreases elite incentives and opportunities for toppling the democratic regime. Statistical analyses of democracies globally from 1903 to 2010 corroborate that the impact of economic crises on the risk of democratic breakdown is suppressed when democracies have a bureaucracy of higher quality. The results are robust to alternative model specifications, including a battery of ‘good governance’ indicators. The effect of bureaucratic quality is not driven by bureaucracies’ ability to hinder crisis onset or shorten crisis duration but rather their ability to decrease domestic upheavals during crises.

Keywords: economic crisis, democratic breakdown, democracy, bureaucracy

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The financial crisis that hit most of the world from 2008 has relaunched old debates about democracies' resilience to economic crises and sparked comparisons with the Great Depression of the 1930s (see, e.g., Krugman, 2011; Lindvall 2012). At the same time, it seems evident that countries with lower bureaucratic quality today, such as Greece, Brazil and Mali, have been and are suffering much worse consequences politically from the Great Recession than neighbouring countries with higher levels of bureaucratic quality. Yet the general notion that public administrations are important for democratic stability during times of economic crisis has still not been explored in extensive global analyses.

Existing research consistently shows a connection between economic crises and democratic breakdown. An economic crisis, all else equal, increases the risk of democratic breakdown (see, e.g., Gasiorowski 1995; Przeworski and Limongi 1997: 167-169; Bernhard, Nordstrom, and Reenock 2001; Bernhard, Reenock, and Nordstrom 2003; Svolic 2008; Møller, Schmotz, and Skaaning 2015). However, it is also evident that some democracies survive the strains associated with economic crises whereas other democracies break down under similar or even less severe circumstances (Haggard and Kaufman 1997: 277; Przeworski et al. 2000: 116-117). Some democracies are more resilient to crises than others. Why should this be?

In attempting to solve this puzzle, few studies have engaged in cross-national empirical analyses. Among the existing analyses, one structural notion has been that high levels of economic development protect democracies that are undergoing economic crises (Przeworski and Limongi 1997: 167-169). However, it is far from always the wealthiest democracies that survive crises (Ertman 1998). Another main strand of research devotes attention to institutional factors such as party system characteristics and the configuration of legislative and executive power (parliamentarism or presidentialism) (see, e.g., Bernhard, Nordstrom, and Reenock 2001; Svolic 2008: 161¹). A third approach focuses on particular political strategies and policy reforms given different class

configurations (see, e.g., Gourevitch 1986; Luebbert 1987; Capoccia 2005; Brambor and Lindvall 2014).

Common to all these studies is that they assume that the state bureaucracy mechanically and without any changes transforms the wishes and orders of politicians into real-world outcomes. Even though studies deem relevant state-related phenomena such as ‘corruption’, ‘politicization’ and ‘inefficiency’ as accelerators of anti-democratic mobilization, these effects are often only mentioned in passing and ultimately neglected in the explanatory models.

This article takes stock of one of the most important bases of good governance, namely that of bureaucratic quality. To our knowledge, we develop the first theorization of bureaucratic quality as the answer to why economic crises sometimes lead to democratic breakdown and sometimes not. We contend that economic crises dramatically alter the dynamics around political decision-making and implementation in any democracy. During an economic crisis, the popular reputations of democratically elected politicians are particularly endangered. To boost their reputation, the politicians therefore need to find swift yet diligent solutions to the social and economic complexities of the crisis. Otherwise, they may very well miss re-election or, under more dramatic circumstances, the democratic system may, for instance, break down through a populist winning the election and dismantling democratic rights, or through the military in a coup d’état aimed at economic restoration. The point in this article, however, is that when politicians realize the danger of just one of these scenarios, they are likely to intensify interactions with civil servants because the bureaucracy is one key to manage economic crises (see O’Donnell 1973: 30-31, 71). The quality of the bureaucracy then co-determines whether the crisis is successfully managed.

The main proposition is that the destabilizing effect of economic crises on democracies is smaller for higher levels of bureaucratic quality. We theorize how higher bureaucratic quality, deriving from more competent, efficient and autonomous civil servants, secures more prudent policies

and more disciplined, swift and impartial implementation. The following mechanism makes democracies with a high-quality bureaucracy more prone to survive economic crises: Rather than shortening the period of economic growth crises, high-quality bureaucracy shields the masses from certain hardships produced by crises, notably impoverishment and rising inequality, thereby decreasing mass incentives for mobilizing against the regime (see Rothstein 2011; Svobik 2013). Whatever the political willingness to combat immediate poverty by financial relief and inequalities by redistribution of public goods (e.g. health care) and social benefits (e.g. protection schemes), a high-quality bureaucracy is needed to alleviate these hardships (see Haggard and Webb 1993; Evans 1998). High-quality bureaucracy, in turn, lowers the level of anti-systemic mass mobilization during crises. It also reduces the incentives for the incumbent elites and the military to stage a coup d'état (see Haggard and Kaufman 1997; Cornell and Lapuente 2014).

To examine our propositions, we need to go beyond the typical post-1945 limit of analyses in order to include the Great Depression and avoid a 'Cold War bias'. We therefore employ an extraordinarily extensive time period from 1903 to 2010. This has three strengths. First, the period 1903–2010 covers all the waves and reverse waves of democratization in the twentieth century (see Huntington 1991²) and both major economic booms and recessions (see Gourevitch 1986). Second, it covers different international orders which, for instance, appreciate that the bipolarity of the Cold War international system enforced a peculiar manipulation of political regimes (see Svobik 2008; Boix 2011). Third, it covers a wider variation in the quality of bureaucracy. The twentieth and early twenty-first centuries have seen waves of successful reforms from patrimonial to more Weberian forms of bureaucracy in many countries, but patrimonial bureaucracies with records of poor performance have persisted to this day in at least as many (Rauch and Evans 2000; Piattoni 2001). Our analysis capitalizes on this case-specific knowledge by employing the global-coverage indicator of a 'rigorous and impartial public administration' from the newly released V-Dem data set covering

the relevant period. This enables a focus on the components of good governance that relate to bureaucratic quality rather than policy content or political regime.

The main proposition of a moderating effect of high-quality bureaucracy on the crisis–breakdown relationship is tested in a series of fixed-effects logit regression analyses with crisis–bureaucratic quality product terms along with a range of exogenous controls. We find that the positive effect of economic crises on democratic breakdown is dampened when democracies have a bureaucracy of higher quality. The results are robust to alternative specifications and measures but, most importantly, to potential confounders from the basket of good governance indicators such as the rule of law, levels of corruption, party linkages with constituencies, and prior levels of democracy.

In a final preliminary analysis, we render the mechanism probable by showing that the results are not driven by the ability of high-quality bureaucracies to shorten the duration of crises but rather their ability to decrease instances of anti-government protests during such periods.

Economic crises as triggers of anti-democratic mobilization

Economic crises are frequent in democracies, deriving from bank collapses, bursting of housing bubbles or exhaustion of domestic and export markets. Their origins aside, they uniformly spur unemployment and impoverishment and typically exacerbate existing inequalities (Gerschenkron 1989; Gasiorowski 1995; Bernhard, Nordstrom, and Reenock 2001). Classic studies of democratic breakdown, however, indicate that the otherwise robust relationship between economic crises and democratic breakdown may be too simplistically stated. In Juan Linz’s conclusions (1978: 50) to his famous volume explaining the advent of military dictatorships in Latin America in the 1960s and 1970s and the diverse democratic breakdowns in interwar Europe, he notes that democratic crises ‘are the result of a lack of efficacy and effectiveness of successive governments when confronted with serious problems that require immediate decisions’. Nevertheless, Linz does not specify how state

bureaucracy may affect efficacy or effectiveness even though such connections should be obvious. In a similarly intriguing but unspecified manner, Adam Przeworski (1991: 33) stated that 'whether or not democracy survives adverse economic conditions is a joint effect of conditions and institutions.' Finally, Nancy Bermeo (1997: 19) comes closer in her review of the role of economic crisis for democracies in the interwar years by stating, 'What seems to distinguish the casualties from the survivors in the interwar story is less the behavior of an actively anti-democratic public than the state's capacity to provide what might be called 'civic order'. But the effect of state capacity on civic order is not pursued further.

We take from these classics that crises are merely drivers of change and not ultimately decisive of the outcomes of these changes. Specifically, crises matter because the crisis hardships of impoverishment and feelings of unjust distribution of resources trigger dissatisfaction among the masses. If this is not addressed by the democratic leaders, trust in the ability of those leaders and outright disbelief in a better future under democracy may develop, with the effect that anti-democratic movements mobilize and campaigns against democracy will have better chances of gaining public credence (Gerschenkron 1989; Svobik 2013; see also Luebbert 1987). More theorization is needed as to how state bureaucracy contributes to alleviating hardships produced by crises.

How bureaucratic quality hinders anti-regime mobilization and democratic breakdown

We propose that bureaucratic quality changes the dynamics of mobilization indirectly since the actions of the state bureaucracy in matters of social goods provision and distribution reflect upon the democratic leadership (see Rothstein 2011). There is a significant gap between bureaucracies that muster competent, efficient and autonomous employees and those that do not. For instance, such gaps may stem from different civil service recruitment systems, contrasting meritocracy with patrimonialism. The latter does not favour competence, efficiency, and autonomy because it does not

select from among the entire pool of potential recruits (Rauch and Evans 2000; Dahlström, Lapuente, and Teorell 2011; 2012). For managing economic crises, however, the actual behaviour of civil servants is more important than how those civil servants were hired in the first place. Table 1 below sketches how civil servants in high-quality bureaucracies transform their competence, efficiency and autonomy into three separate ‘shields’. We now describe how each shield contributes to alleviate crisis hardships.

[Table 1 about here]

First, competence contributes to more prudent policies which, in this context, implies that even politically uncomfortable truths such as poor health care performance are faced and that politicians are better informed of suitable ways to deal with financial ailments such as bank runs, debt burdens and high inflation. For example, there is generally a significant gap in democratic breakdown rates between countries where interaction between politicians and bureaucrats lead to prudent, often termed ‘developmental’, policies to combat crises and those ‘predatory states’ where bureaucrats secure their private finances at the expense of serving public interests (see Evans 1995). During the Asian financial crisis (1997–8), South Korea’s Kim Dae Jung was only able to tackle the problem of bank insolvency because there was a competent system of meritocratically selected financial bureaucrats alarming him and advising him to use the Korea Asset Management Company to buy out non-performing assets, thereby reducing the debts of banks and firms. This contributed to building public trust that democracy and sustainable economic growth could be combined (Moon and Kim 2000: 149, 160; see also Haggard 2004).

Although not exactly a case of predatory behaviour, Ecuador (1998–2000) contrasts sharply with the South Korean example. Here, President Mahuad also felt the shackles of the Asian

banking crisis but his bureaucracy was heavily politicized and loaded with incompetent employees, having had rounds of rotation in the high ranks through the 1990s. As the regulatory structures of the banking system had only short institutional memory, having suffered from brain-drain, financial instability accelerated and caused hyperinflation and impoverishment among the massively unemployed indigenous population (Solimano 2002: 5, 12). The indigenous organization CONAIE channelled the grievances, became paramilitary towards the end of 1999 and provided junior officers with a legitimate reason for toppling Mahuad and installing a junta government in early 2000 (Lucero 2001).

Prudent policies are also products of effective party deliberation and extensive connections between the public and political parties. Yet the bureaucracy has a particular and often exclusive knowledge of the specific problems and solutions that come with an economic crisis. Therefore, the appropriateness and timing of policies is preconditioned on the quality of information supplied by the bureaucracy.

The second shield comes from efficient civil servants, who are more likely to implement budget cuts, collect taxes and provide public goods as well as social benefit programmes with discipline and swiftness and thus less waste of resources. By contrast, inefficient civil servants let expenses run loose and sacrifice social benefit programmes to a pool of slack and shirk (Piattoni 2001; Dahlström, Lapuente, and Teorell 2012). Take as example Estonia in the 1990s and beyond. Estonia had better records of diligent public administration than most of its post-communist counterparts. Since its restoration in 1991, Estonian democracy has also been remarkably legitimate through economic crises, even alongside huge distributional inequalities. This has been based on the public view that at least state funds were efficiently managed (Hopf 2002: 418; Møller and Skaaning 2010: 328, 340). The diligence of public servants proved particularly beneficial in the first years after the Soviet collapse in stabilizing finances and managing the transition to a market economy in a more

transparent and less costly fashion than in, for instance, Belarus, which quickly succumbed to Lukashenko's dictatorial rule (see Kasemets 2012).

Public service efficiency often correlates with low levels of administrative corruption. But in some cultures corruption may also be the informal practice that 'greases the wheels' and ensures expedient delivery of public services. Therefore, bureaucratic efficiency is a more consistent indicator of the state's ability to deliver public goods in a disciplined and swift manner.

The third shield of impartiality in policy implementation comes from civil servants who function autonomously of arbitrary political pressures (Cornell and Lapuente 2014). Bureaucratic autonomy better ensures that equal cases are treated equally. Such impartiality is particularly important during crises because the scarcity of resources otherwise incentivizes elite exploitation of the most vulnerable citizens in the distribution of goods and the costs of austerity measures (see Rothstein and Teorell 2008: 170). Impartiality in administration has differentiated democracies, left- and right-wing governments alike, in their willingness and ability to shield the masses from the economic inequalities induced by crises from the 1930s to the present (for a related argument, see Cornell and Lapuente 2014). It also gives substance to why sub-Saharan Africa's democracies relying on extensive patronage to local barons to keep ethnic tensions quiet are particularly vulnerable to drains on finances (see Evans 1995).

The strength of the rule of law is closely related to bureaucratic impartiality, but the rule of law denotes the specific abstention of court judges from manipulating or circumventing laws. While such judicial accountability may be highly relevant for everyday governance, economic crises are contracted, unusually politicized periods when the qualities and behaviour of the ordinary civil service matter more. Before courts, politicians seek help from bureaucrats in, for instance, finance, labour, and social ministries as well as their field workers to cope with an economic crisis.

Any of the three shields may work to alleviate crisis hardships and thus drive the effect of bureaucratic quality. They probably work simultaneously because the qualities of competence, efficiency and autonomy tend to cluster. In any case, they all serve to lower mass incentives for anti-regime mobilization. The masses – typically but not always those of the opposition – believe that the benefits of continuing to play the democratic game remain greater than the benefits of rebellion. The elite opposition has less public backing to attempt a violent overthrow, and the elite incumbents perceive the opposition as less threatening to their power and property rights. Also, the incumbents find it difficult to legitimize the withdrawal of democratic rights, and the military has less incentive to intervene on matters of public disorder or economic mismanagement (see Przeworski 1991; Svobik 2015; Galetovic and Sanhueza 2000).

In sum, bureaucratic quality substantially lowers the risk that democracies undergoing crisis will succumb to anti-democratic movements. We thus examine the following hypothesis

Hypothesis: The destabilizing effect of economic crises on democracies is smaller for higher levels of bureaucratic quality.

Research design and data

Our empirical examination needs to handle a core selection problem: countries that are exposed to economic crises, low bureaucratic quality and regime instability (such as Argentina) are likely to be different from stable, high-quality bureaucratic democracies (such as present-day Germany) on a range of unobservable confounding characteristics. While previous work has mainly relied on cross-sectional variance in limited time periods (such as the interwar period or the post-Second World War era), we make use of within-country variation over an extended time period from 1903 to 2010. As all models include country fixed-effects, our approach controls for a range of unobservable country-

specific time invariant confounders such as colonial history, political culture, geographic location, and ethnic and religious composition. Added to this, the long time period both utilizes the asymptotic properties of fixed-effects models with respect to consistent estimates and provides enough variation to overcome some of the efficiency losses induced by fixed-effects estimations.

In the main empirical test, we present models with standard controls and various robustness checks as well as separate models with a battery of ‘good governance’ indicators that could potentially confound the moderating effect of bureaucratic quality. In a second empirical test, we render the mechanism probable by scrutinizing the key observable implication of mass grievances.

Democratic breakdown

To determine whether a democracy breaks down, we employ Boix, Miller and Rosato’s (BMR) (2014) data on regime spells from 1800 to 2010. The variable takes the form of a binary indicator where 0 is given for years when the requirements of democracy were fulfilled and 1 for the breakdown year. Several other data sets could have been used to identify democratic breakdown (e.g. Bernhard, Nordstrom, and Reenock 2001; Cheibub, Gandhi, and Vreeland 2009) but we find that Boix, Miller, and Rosato’s (2012) conception of democracy is stronger for our purpose (see also Svobik 2008: 156). It defines democracy as a regime in which the key government offices are filled via free and fair elections with at least half of all men enfranchised. This relatively minimalistic definition does not conflate aspects of the state bureaucracy with aspects of democracy. It safely excludes autocracies by demanding free and fair elections and pragmatically lowers the demand for suffrage since female suffrage in many otherwise democratic countries of, for instance, Western Europe was only achieved after the Second World War.

Economic crises

We include a menu of different indicators of economic crisis, including the common specification and some more sophisticated ones. A common specification of economic crisis is simple annual growth rates in GDP per capita. However, economists have for decades pointed out the problems of this measurement (see e.g. Pritchett 1998).

For our purposes, the most serious problem is that the myopic focus on yearly fluctuations prevents researchers from identifying the start and end of a crisis. Consequently, researchers employing the annual growth rates approach often incorrectly conceive rapid growth rates following severe recessions as non-crisis years even though a country may still find itself in a deep economic slump. Take for example the annual growth rates in the US during the Great Depression. While the first few years saw severe negative growth rates, approximately -10, -8 and -14 per cent, the economy in 1934 already exhibited impressive positive growth rates of about 7 per cent in both 1934 and 1935 and remarkably 13 per cent in 1936. Most European countries, like Italy, Spain and Germany, experienced similar patterns of positive growth rates during the mid-1930s. Yet, as several authors (e.g. Bernanke 1983; Overy 2010) have demonstrated, for the majority of these countries the Great Depression did not end until the advent of the Second World War. These countries were still in the middle of an economic ‘slump’ with severe debt and banking crises despite positive growth rates.

Problems like this have spurred more nuanced ways of measuring economic crisis, such as growth differentials across decades (Rodrik 1999), growth accelerations (Hausmann, Pritchett, and Rodrik 2005), fluctuations between multiple growth regimes (Jerzmanowski 2006), duration of growth collapses (Hausmann, Rodriguez, and Wagner 2008), start and stop growth (Jones and Olken 2008), real income stagnation (Reddy and Minoiu 2009) and duration of growth accelerations (Berg, Ostry, and Zettelmeyer 2012).

As we are primarily interested in persistent economic crisis periods, we modify the ‘economic slump’ approach of Hausmann, Rodriguez, and Wagner (2008).³ An economic crisis thus

starts with a contraction of GDP/cap (at a time when it was higher than ever before in that country). It ends when GDP/cap is at or above its pre-crisis level. Finally, as we are not interested in momentary one-year contractions during which a crisis-perception does not have time to materialize, we include a three-year criterion which requires the slump period to endure for at least three years in order to be classified as a crisis.⁴

Yet we emphasize that our results do not hinge on this particular specification of economic crisis as we obtain similar results with other crisis specifications, including the original annual growth rate approach (see the analysis).

Bureaucratic quality

To measure bureaucratic quality, new data from the V-Dem project (Coppedge et al. 2016) enables us to alleviate extant data source problems of limited spatial and temporal coverage (e.g. the ‘Weberianness scale’ developed by Rauch and Evans 2000) and measurement validity and transparency (e.g. the ‘bureaucracy quality’ measure by the Political Risk Services Group 2014⁵ – for reviews, see Hanson and Sigman 2013; Saylor 2013).

By contrast, the V-Dem project’s indicator of ‘rigorous and impartial public administration’ is a time varying, cross-national, continuous indicator that covers our analytical time period and is consistent with the behavioural manifestations of bureaucratic quality as stipulated. This variable is based on an ordinal scale from 0 to 4 by asking: ‘Are public officials rigorous and impartial in the performance of their duties?’ It is then converted into a continuous measure by Bayesian item response modelling. The variable in our sample thus scores countries from approximately -4 to 4, although such intervals differ from variable to variable due to the Bayesian measurement model. The Bayesian modelling works by taking stock of coder reliability and measurement information. For each country, five experts assigned ordinal scores and reported their uncertainty. The Bayesian item

response model then converted the uncertainty into point-estimates while assuming the ordinal scale to be latently interval (see Coppedge et al. 2015b: 25-29).

The variable captures the manifestations of bureaucratic quality: prudence in policymaking and discipline and swiftness in implementation are reflected in the rigorousness of public officials' performance. Such 'rigorousness' thus implies effective implementation and also the ability to apply general laws to specific cases. Impartiality is directly measured in the second part of the question. Furthermore, the variable only covers the workings of public officials. It is thus highly relevant for examining our proposed mechanism of the shielding of the masses from the hardships of crises.

Figure 1 shows the distribution of cases in the sample of our main models on the interval-scaled bureaucratic quality variable. As is evident in the lower figure, there are cases in almost the entire spectrum of the scale but they are concentrated around the scores -1 to 2, approximately. The countries with the highest levels of bureaucratic quality are, as expected, mostly found in Western Europe and among British settler colonies (see Ertman 1997).

The upper figure in Figure 1 exemplifies how the measure captures both the consistency of high-quality bureaucracies such as in Sweden (solid black line) and the immense fluctuations over time in bureaucratic quality in such diverse settings as Guatemala (short dashed line), Argentina (long dashed line) and Central African Republic (solid grey line). As such, there does not seem to be any path dependency 'stability bias' in the measure. Another issue is the potential for introducing a certain 'democracy bias' when using an indicator from a data set with a focus on measuring democracy. However, coders were chosen as experts on each indicator in isolation. Besides, our results are robust to the inclusion of levels of democracy as a control variable (see the analysis). One may also speculate about coders' tendency to equate 'impartiality' with welfare provisions. But 'equal treatment of equal cases' does not presume redistribution, and well-functioning democracies can be liberal as well as

social in V-Dem's understanding. As an example, bureaucratic quality in Sweden only improved slowly whereas the scope and degree of the country's welfare provisions increased sharply throughout the twentieth century.

[Figure 1 about here]

Control variables

We estimate the moderating effect of bureaucratic quality with a variety of exogenous controls to address potential confounders. Our most basic models control for economic development measured as the logged level of per capita GDP with data from the Maddison Project (Bolt and van Zanden 2014) as well as updated population size (also logged) data from Gleditsch (2002). Our main model specification adds controls for ongoing intrastate conflicts with updated data from the correlates of war project (Sarkees, Reid, and Wayman 2010) and educational equality (Coppedge et al. 2015a). In order to account for diffusion effects from neighbouring countries, we include average regional electoral democracy levels based on the V-Dem electoral democracy index (Coppedge et al. 2015a).

Some more demanding 'good governance' models are also included to examine whether variables of good governance other than bureaucratic quality affect bureaucratic quality and crisis management and thus the probability that democracies break down. This is pertinent to separate the sometimes adverse effects of the components of 'good governance'. First, we include a 'party linkages' variable that measures the extent to which major political parties are linked to their constituencies. It ranks degrees of party institutionalization among constituencies from personal clientelistic to more broad policy/programmatic bonds. This variable may affect the prudence of policies. The variable 'political corruption index' potentially confounds the effect of bureaucratic quality on the discipline and swiftness in implementation. It includes measures of six distinct types

of corruption in the executive, legislative, and judicial realms. As a specific test of the impartiality argument, we include a measure of ‘judicial accountability’ denoting whether judges are effectively disciplined for serious misconduct. Finally, as the resilience of a democratic system and bureaucratic quality can depend on the initial degree of democracy – highly democratic countries may simply be immune to breakdown and more focused on improving bureaucratic quality – we include the level of electoral democracy as control. All these ‘good governance’ variables are taken from the V-Dem data set (Coppedge et al. 2015a).

We take several steps in order to take time into consideration. Since our extensive 107-year time period includes different international orders, we include four ‘world order’ dummies that distinguish between four time periods: the orders favouring democracy (1900–32 and 1992–2010) and non-democracy (1933–1945 and 1946–1991), respectively.⁶ We also add decade dummies in all models to take account of unobservable decade specific characteristics such as welfare state reforms and economic ideology in major international organizations. We undertake the most fine-grained temporal control in a final set of models by replacing the time periods and decade dummies with a complete set of year dummies in order to account for potential common year-shocks. Finally, as older democracies are in general more stable than newer ones, we follow the method of David Carter and Curtis Signorino (2010) by including cubic polynomials (t , t^2 , t^3) of the time since the last democratic transition observed for each country in all model specifications.

Empirical analysis

The results from the examination of the proposed hypothesis are presented in Table 2. Starting with our main model specification we first see, in Model 3, that the direct effects of both economic crisis and bureaucratic quality are as expected. Experiencing an economic crisis increases the risk of democratic breakdown, whereas having a higher quality bureaucracy decreases a country’s risk of

breakdown. More importantly for our purposes, Model 4 includes a crisis-bureaucratic quality product term, indicating how the direct effects of one constituent variable changes when the value of the other constituent variable changes. With respect to our research question, the negative and statistically significant product term reveals that the positive effect of economic crises on the probability of democratic breakdown is dampened when the value of bureaucratic quality increases. That is, economic crises increase the risk of democratic breakdowns in low-quality bureaucratic democracies to a higher extent than in high-quality bureaucratic democracies.

More specifically, on the tenth percentile of the bureaucratic quality distribution (score of -0.73) the average breakdown risk increases from around 9 per cent in non-crisis periods to approximately 25 per cent during crisis periods – a 16-percentage point increase. For democracies on the twenty-fifth percentile of bureaucratic quality (score of -0.12), the increase is from 6 to 14 per cent – an 8-percentage point increase, while democracies with median levels of bureaucratic quality (score of 0.63) experience an increase from around 3 to 5 per cent. In contrast to these changes in risks, democracies with higher levels of bureaucratic quality have a breakdown risk of approximately 1–2 per cent in both crisis and non-crisis periods. This shows that bureaucratic quality generally lowers the destabilizing effect of economic crises on democracies but that the importance of bureaucratic quality pertains first and foremost to the lower half of the spectrum.

[Table 2 about here]

Figure 2 lends further support to this interpretation.⁷ The graph shows the marginal effects of economic crisis on democratic breakdown across the continuous spectrum of bureaucratic quality.⁸ The important feature of the figure is the slope of the graph. This shows how the marginal effect of economic crisis on democratic breakdown decreases when bureaucratic quality increases.

This is illustrated by the gradually decreasing slope of the solid line. The effect is strongest for democracies with bureaucratic quality on the lower tenth percentile. Here, the marginal effect is highest, implying that the direct effect of crisis is strongest and, more importantly, the slope is steepest – which means that the dampening effect of bureaucratic quality on the crisis-effect is largest. Although still strong, the slope gradually flattens as bureaucratic quality increases. For countries around the median value on the bureaucratic quality scale, the direct effect of economic crisis becomes indistinguishable from 0. The slope, however, remains decreasing at a notable rate until values around 1 on the bureaucratic quality scale.⁹

The analysis so far leaves us with a qualification of the proposition: changes in bureaucratic quality are most important in crisis-ridden democracies with lower levels of bureaucratic quality. A preliminary interpretation of this could be that changes at lower levels of bureaucratic quality simply have a bigger impact on people's social and economic situation. Whereas, for instance, improvements at higher levels of bureaucratic quality could go unnoticed or merely boost popular satisfaction, improvements at lower levels could bring people out of utter despair of bureaucratic performance to hope for better performance in the future.

This qualification aside, it is important to note that the results so far basically corroborate our proposition: bureaucratic quality does in fact dampen the destabilizing effect of crisis in democracies.

[Figure 2 about here]

Robustness checks

We run several alternative tests to check the robustness of the results. The most important of these tests are presented in Table 2. First, the base model (Models 1 and 2) include only the most essential

pre-treatment controls to ensure that our results are not just an artefact of post-estimation bias induced by post-treatment controls. Although the significance level of the product term is weaker, possibly due to omitted variables, the results generally stay the same.

In order to investigate possible confounding effects of other ‘good governance’ factors not captured by our main model specifications, we run models that include variables for corruption, party linkages, judicial accountability and the level of democracy. Models 5 and 6 in Table 2 show the results of these more demanding model specifications. The results are statistically and substantially similar. This shows that the moderating effect of bureaucratic quality is separate from the effect of other components that relate to good governance. It would thus be imprecise to speak of good governance generally as the factor that makes democracies resilient to crises.¹⁰

Another potential worry could be that our results are confounded by common exogenous shocks not captured by the rather broad time period dummies. Important events like the Wall Street Crash or the terrorist attacks on the World Trade Center in 2001 could all induce common global shocks affecting the economic, bureaucratic and democratic situation in countries around the world. We thus rerun our models replacing the world order and decade dummies with a full set of year-dummies (Models 7 and 8 in Table 2). The results stay the same.

Next, the simultaneous inclusion of country and year fixed effects combined with the fact that the logit models drop all countries that do not experience a democratic breakdown in our 107-year period could potentially lead to inefficiency and sensitive point estimates.¹¹ For that reason, we employ a linear probability model with both country and year fixed effects (Models 9 and 10 in Table 2). Here, we also obtain similar results.

We also conduct robustness tests of different specifications of our economic crisis variable. Most importantly, to increase the comparability with other studies (e.g. Gasiorowski 1995; Przeworski and Limongi 1997; Bernhard, Nordstrom, and Reenock 2001; Svolic 2008; Møller,

Schmotz, and Skaaning 2015), we include models with annual growth rates in GDP/cap as measuring economic crisis. As Models 11 and 12 in Table 2 show, our results do not hinge on the economic slump approach but are robust to this standard measurement of economic crisis. Note here that the opposite signs for the crisis and product term coefficients are due to the reversed scale of the annual growth rates approach: Higher values indicate better economic performance and thus more stability, and vice versa.

Moreover, in our online appendix we attempt to account for the fact that several, especially African, countries such as Benin and Niger have been in an almost permanent state of crisis since independence.¹² Hence, we modify our economic slump measure slightly: Instead of requiring that a country should get back to the pre-crisis GDP/cap level in order to be free of the crisis, we add a 10-year benchmark. Accordingly, an economic crisis starts with a contraction of GDP/cap and ends when it is at or above its highest level during the previous 10 years. No matter the benchmark, the results stay the same.

We also run robustness tests substituting the BMR measure of democratic survival with Cheibub, Gandhi, and Vreeland's (2009) democracy–dictatorship (DD) measure. When using the DD measure, the results stay the same.

What is driving the results?

We have argued that higher bureaucratic quality suppresses the destabilizing effect of economic crisis on democracy because such bureaucracies secure more prudent policies and more disciplined, swift and impartial implementation thereof. These bureaucratic actions shield the population from the social and economic hardships of the crisis, thereby lowering the level of anti-systemic mass mobilization, which increases the chances of democratic survival. We now attempt to examine this

mechanism more closely. Due to data limitations, the following tests are only preliminary but still add leverage to our findings.

A competing interpretation of the results so far could be that high-quality bureaucracies decrease the risk of democratic breakdown during crises because the specific qualities of competence, efficiency and autonomy among civil servants help shorten the duration of economic crises – that is, high-quality bureaucracies will recover and return to normal growth rates faster than democracies with lower bureaucratic quality (see Evans and Rauch 1999). Another competing interpretation could be that high-quality bureaucracies simply experience fewer onsets of economic crisis to begin with. Table 3 tests these propositions with six logit duration models. The first group of models (Models 1, 2 and 3) exhibit regressions of the covariates on crisis onset while the second group (Models 4, 5 and 6) repeat this on crisis duration.¹³

There is no, or only a very weak, significant correlation between levels of bureaucratic quality and onset/duration of economic crisis. Starting with the relationship between bureaucratic quality and economic crisis onset, we see that although the coefficients are negative – suggesting that bureaucratic quality decreases the risk of onset of an economic crisis – the effects are insignificant in all models. This suggests that bureaucratic quality – while possibly important for longer-term economic development – does not exert any significant influence on the propensity to experience an economic crisis. This is no surprise as national economic crises have generally tended to follow global cycles of economic growth in the twentieth and twenty-first centuries, exemplified by the two largest crisis periods of the Great Depression and the Great Recession (from 2008), which hit democracies with reasonably high-quality bureaucracies such as the US and the United Kingdom as severely, if not more severely, as democracies with lower quality bureaucracies (see also Katzenstein 1985: 19; Gourevitch 1986: Ch. 1; Weiss 1998).

The results with respect to the duration of economic crises are somewhat more mixed: The effect of bureaucratic quality on duration of economic crisis is insignificant in the base and main models but becomes significant in the LPM model. This seems to suggest that although a high-quality bureaucracy can help shorten the duration of an economic crisis, it is not the major driver of our findings.

[Table 3 here]

Thus, rather than improving actual growth performance, bureaucratic quality is important for the ability to fight the hardships of crises. To get a more direct examination of this, we would ideally measure a sequence from politician–bureaucrat interactions to (perceptions of) impoverishment and socioeconomic distributional justice. However, such data are scarce and especially the politician–bureaucrat interactions are hardly quantifiable. Instead, we run a series of count models regressing the occurrence of anti-regime mass mobilization during times of economic crisis on our bureaucratic quality variable along with the usual controls. Given the significance of the bureaucratic quality–crisis interaction, we can credibly infer from observing anti-systemic mobilization to a previous phase where the state bureaucracy failed to shield the masses from crisis hardships. Such an examination thus raises confidence in the mechanism.

To measure anti-regime mass mobilization, we employ the weighted index of domestic instability from the CNTS data archive (Banks and Wilson 2015).¹⁴ This index includes measures of riots, anti-government protests, strikes etc. and thus offers a good opportunity to test the ability of bureaucracies to mitigate popular upheavals in times of crisis and non-crisis.

Table 4 presents the results of this examination. It consists of three fixed-effects negative binomial models. In order to test whether higher bureaucratic quality generally decreases

the number of domestic upheavals during economic crises, Model 1 in Table 4 regresses instances of domestic upheavals for all crisis years. As is evident, democracies with higher quality bureaucracies generally have fewer domestic upheavals during times of economic crisis than democracies with lower bureaucratic quality. This, coupled with the finding that higher quality bureaucracies are not associated with shorter crisis periods, suggests that bureaucratic quality improves democracies' crisis-resilience because it shields the masses from the hardships of crises, in turn dampening mass mobilization against the regime.

Still, this could simply reflect that higher quality bureaucracies have lower levels of dissent in non-crisis periods as well. However, as is evident in Model 2 in Table 4, democracies with higher quality bureaucracies do not experience fewer domestic upheavals in non-crisis periods. This indicates that there may be a genuine, dampening effect on bureaucratic quality during periods of crisis. Model 3 tests this more formally by including crisis-bureaucratic quality product terms. Our 'crisis-shield' mechanism meets some difficulties here. The product terms do have the right sign, but the effects are not statistically significant on conventional levels.

[Table 4 here]

All in all, we corroborate our hypothesis that during economic crises, democracies with higher quality bureaucracies are less susceptible to breakdown. The results also generally vindicate the crisis-shield propositions, although we cannot corroborate the mechanism fully because there is no significant difference in domestic upheaval numbers between higher and lower quality bureaucracies during crises. Nevertheless, we can conclude that the effect we find in the main models has less to do with actual growth performance than with shielding of crisis hardships. On balance, the

results therefore preliminarily support that our crisis-shield mechanism is the driver of how bureaucratic quality dampens the destabilizing effect of crises on democracies.

Conclusion

In this article, we asked why economic crises sometimes lead to democratic breakdown and sometimes not. We proposed that the positive impact of economic crises on the risk of democratic breakdown is suppressed when democracies have a bureaucracy of higher quality. Our global statistical analysis from 1903 to 2010, along with a range of robustness checks and controls, supports this proposition. Indeed, bureaucratic quality is important for economic crisis management and thus the risk of democratic breakdown. Its effect prevails even in contexts where good governance prospers more generally. We also examined the proposed mechanism preliminarily. Rather than improving actual economic growth performance, high-quality bureaucracies are better at shielding the masses from the hardships of the crises, in turn dampening mass mobilization against the regime. While these findings combined vindicate rather than reject the mechanism, further analysis is needed to determine the mechanism with greater certainty.

The extensive analytical period accentuates the generality of our findings. It travels across many cases that are different on a number of contextual factors such as the character of the international order and the type of economic crisis. The three shields by which state bureaucracies manage economic crises are thus applicable across a range of different contexts and situations. Further research could investigate whether one shield is more important than others under certain circumstances, including the role of the state bureaucracy for autocratic stability during economic crises. The interaction effect is probably less strong in autocracies because autocracies rely less on popular legitimacy than democracies and have greater access to violent repression of mass mobilizations.

The interaction of bureaucratic quality and economic crisis that we have presented is one important illumination of the short-term dynamics that determine democratic breakdown but, at a structural level, it also informs recent research on the state–democracy nexus of the nuts and bolts that connect the state with democracy. For young democracies, the performance of the state bureaucracy is an important stabilizing device separate from other ways of nurturing good governance. This kind of knowledge seems highly relevant at a time when democracies are pressured worldwide, economic stagnation and crises are frequent, and state failure and economic mismanagement continue.

SUPPLEMENTARY INFORMATION

To view the supplementary information for this article, please visit <setter to complete>.

NOTES

¹ Svulik does not use interaction terms but his use of the same factors in both the hazard-rate and consolidation samples of his split-population model allows for interaction interpretations.

² We do not cover the first 77 years of the first wave (from 1826 to 1903) but democracy with above-half male suffrage only existed in very few countries before 1903.

³ In addition, we are heavily inspired by the approach of Bluhm, De Crombrughe, and Szirmai (2014).

⁴ To formalize this definition: for a country i , in year t , with a GDP/cap Y , an economic crisis begins when $Y_{it} < Y_{it-1}$ and Y_{it-1} equals the maximum so far, and ends when $Y_{it+p} \geq Y_{it-1}$. Furthermore, we require $p \geq 3$ in order to classify the period as a crisis.

⁵ For instance, using the 1984–2010 International Country Risk Guide data leaves us with only 21 democratic breakdowns.

⁶ The periodization of international orders is based on Boix (2011: 823). Boix codes the period from 1849 to 1917 as ‘neutral’ but we collapse this with the following pro-democratic period from 1918 to 1932. This is done for reasons of maximizing variation in democratic survival and breakdown which would otherwise have been close to 0 for the period before 1918 (only Greece experienced a democratic breakdown during this period). This is only natural given the few but increasing number of democracies in the first wave of democratization (see Huntington 1991: 14–16), which also substantially supports the coding of it as internationally pro-democratic.

⁷ The marginal effects in Figure 2 are calculated using the main model with country dummies as an approximation of the fixed-effects results.

⁸ In order to avoid depicting effects for values with only few observations, we only show the spectrum between the tenth and ninetieth percentiles on the bureaucratic quality variable.

⁹ More formal tests of second-difference significance show that the dampening effect of bureaucratic quality is significant until countries reach the score of around 1 on the bureaucratic quality scale. Above this value, both the direct crisis effect and the moderating effect of bureaucratic quality cease to exert any statistically significant influence.

¹⁰ Alternative measures of bureaucratic quality such as the World Bank’s ‘government effectiveness’ or the Political Risk Service’s ‘Bureaucracy Quality’ have such low coverage that analyses contain too few democratic breakdowns to provide robust estimates, whereas Hanson and Sigman’s indices do not capture our concept of bureaucratic quality.

¹¹ This is so because the logit estimator only utilizes variation within countries. Hence, countries that do not have any variation on the outcome variable, i.e. democracies that survive during the whole analysed time period do not provide any information to the model and are therefore automatically dropped.

¹² To view the online appendix, please visit <setter to complete>.

¹³ Models 1, 2 and 3 in Table 2 test the onset of economic crises by regressing duration until an economic crisis begins. Accordingly, the cubic polynomials (t , t^2 , and t^3) model time dependence of all non-crisis years until crisis-onset. Models 4, 5 and 6 in Table 2 test the duration (i.e. continuation) of economic crisis by regressing duration until an economic crisis ends. Accordingly, the cubic polynomials (t , t^2 , and t^3) model time dependence of all crisis years until crisis termination (for a similar empirical approach of durational analysis, see Bleaney and Dimico 2009).

¹⁴ We also considered employing non-violent campaigns data from the Nonviolent and Violent Campaigns and Outcomes data set (NAVCO). However, due to its restrictive definition of non-violent campaigns most of these campaigns take place in autocracies and only few in democracies. As such, the NAVCO data set offers little help in our analysis.

References

Ai, C. and Norton, E. (2003), 'Interaction terms in logit and probit models', *Economic Letters*, 80(1): 123-129.

Banks, A.S. and Wilson, K.A. (2015), *Cross-National Time-Series Data Archive*, <http://www.cntsdata.com/#!/citations/c1tsl>

Berg, Andrew, Ostry, J.D. and Zettelmeyer, J. (2012), 'What makes growth sustained?' *Journal of Development Economics*, 98(2): 149–166.

Bermeo, N. (1997), 'Getting Mad or Going Mad? Citizens, Scarcity, and the Breakdown of Democracy in Interwar Europe', *CSD Working Papers*.

Bernanke, B. (1983), 'Nonmonetary effects of the financial crisis in the propagation of the Great Depression', *The American Economic Review*, 73(3): 257-276.

Bernstein, M.A. (1987), *The Great Depression: Delayed recovery and economic change in America, 1929-1939* (New York: Cambridge University Press).

Bernhard, M., Nordstrom, T. and Reenock, C. (2001), 'Economic Performance, Institutional Intermediation, and Democratic Survival', *Journal of Politics*, 63(3): 775-803.

Bernhard, M., Reenock, C. and Nordstrom, T. (2003), 'Economic Performance and Survival in New Democracies: Is there a Honeymoon Effect?', *Comparative Political Studies*, 36(4): 404-431.

Bleaney, M. and Dimico, A. (2011), 'How different are the correlates of onset and continuation of civil wars?', *Journal of Peace Research*, 48(2): 145-155.

Bluhm, R., De Crombrughe, D., and Szirmai, A. (2014), 'The Dynamics of Stagnation: A panel analysis of the onset and continuation of stagnation', Unpublished paper.

Boix, C. (2011). 'Democracy, Development, and the International System', *American Political Science Review*, 105(4): 809-828.

Boix, C., Miller, M.K. and Rosato, S. (2012), 'A Complete Dataset of Political Regimes, 1800-2007', *Comparative Political Studies*, 46(12): 1523–54.

Boix, C., Miller, M.K. and Rosato, S. (2014), *Boix-Miller-Rosato Dichotomous Coding of Democracy, 1800-2010*,
[http://dx.doi.org/10.7910/DVN/28468UNF:5:x3P4QDm6R349bpyygm/g1Q==HarvardDataverseNetwork\[Distributor\]V1\[Version\]](http://dx.doi.org/10.7910/DVN/28468UNF:5:x3P4QDm6R349bpyygm/g1Q==HarvardDataverseNetwork[Distributor]V1[Version])

Bolt, J., and van Zanden, J.L. (2013), 'The First Update of the Maddison Project; Re-Estimating Growth Before 1820', *Maddison-Project Working Paper 4*.

Brambor, T., and Lindvall, J. (2014), 'Democratic Breakdowns in Economic Crises: The Role of Political Ideology', Unpublished.

Carter, D.B., and Signorino, C.S. (2010), 'Back to the Future: Modeling Time Dependence in Binary Data', *Political Analysis*, 18(3): 271–92.

Capoccia, G. (2005), *Defending Democracy* (Baltimore: The Johns Hopkins University Press).

Cheibub, J.A., Gandhi, J., and Vreeland, J.R. (2009), 'Democracy and Dictatorship Revisited', *Public Choice*, 143(1): 67-101.

Coppedge, M., Gerring, J., Lindberg, S.I., Teorell, J., Altman, D., Bernhard, M., Fish, M.S., Glynn, A., Hicken, A., Knutsen, C.H., McMann, K., Pemstein, D., Reif, M., Skaaning, S., Staton, J., Tzelgov, E. and Wang, Y. (2015a), *Varieties of Democracy: Codebook v4*, Varieties of Democracy (V-Dem) Project, <https://v-dem.net/en/reference/version-4-mar-2015/>

Coppedge, M., Gerring, J., Lindberg, S.I., Teorell, J., Altman, D., Bernhard, M., Fish, M.S., Glynn, A., Hicken, A., Knutsen, C.H., McMann, K., Pemstein, D., Reif, M., Skaaning, S., Staton, J., Tzelgov, E. and Wang, Y. (2015b), *Varieties of Democracy: Methodology*, Varieties of Democracy (V-Dem) Project, <https://v-dem.net/en/reference/version-4-mar-2015/>

Coppedge, M., Gerring, J., Lindberg, S.I., Teorell, J., Altman, D., Bernhard, M., Fish, M.S., Glynn, A., Hicken, A., Knutsen, C.H., McMann, K., Pemstein, D., Reif, M., Skaaning, S., Staton, J., Tzelgov, E. and Wang, Y. (2016), *Varieties of Democracy (V-Dem) Data*, <https://v-dem.net/en/data/>

Cornell, A. and Lapuente, V. (2014), 'Meritocratic administration and democratic stability', *Democratization*, 21(7): 1286-1304.

- Dahlström, C., Lapuente, V. and Teorell, J. (2011), 'Dimensions of bureaucracy II: A cross-national dataset on the structure and behaviour of public administration', *QoG Working Paper Series 6*.
- Dahlström, C., Lapuente, V. and Teorell, J. (2012), 'The Merit of Meritocratization: Politics, Bureaucracy, and the Institutional Deterrents of Corruption', *Political Research Quarterly*, 65(3): 656-668.
- Ertman, T. (1997), *Birth of the Leviathan* (New York: Cambridge University Press).
- Ertman, T. (1998), 'Democracy and Dictatorship in Interwar Western Europe Revisited', *World Politics*, 50(3): 475-505.
- Evans, P.B. (1995), *Embedded Autonomy: States and Industrial Transformation* (Princeton: Princeton University Press).
- Evans, P.B. (1998), 'Transferable lessons? Re-examining the institutional prerequisites of East Asian Economic Policies', *Journal of Development Studies*, 34(6): 66-86.
- Evans, P.B. and Rauch, J.E. (1999), 'Bureaucracy and growth: A cross-national analysis of the effect of "Weberian" state structures on economic growth', *American Sociological Review*, 64(5), 748-765.
- Galetovic, A. and Sanhueza, R. (2000), 'Citizens, Autocrats, and Plotters: A Model and New Evidence on Coups d'état', *Economics and Politics*, 12(2): 183-204.
- Gasiorowski, M.J. (1995), 'Economic Crisis and Political Regime Change: An Event History Analysis', *American Political Science Review*, 89(4): 882-897.
- Gerschenkron, A. (1989), *Bread and Democracy in Germany* (Ithaca: Cornell University Press).
- Gleditsch, K.S. (2002), 'Expanded Trade and GDP Data', *Journal of Conflict Resolution*, 46(5): 712-24.
- Gourevitch, P.A. (1986), *Politics in Hard Times: Comparative Responses to International Economic Crises* (Ithaca: Cornell University Press).
- Haggard, S. (2004), 'Institutions and Growth in East Asia', *Studies in Comparative International Development*, 38(4): 53-81.
- Haggard, S. and Kaufman, R. (1997), 'The Political Economy of Democratic Transitions', *Comparative Politics*, 29(3): 263-283.

- Haggard, S. and Webb, S.B. (1993), 'What Do We Know about the Political Economy of Economic Policy Reform?', *World Bank Research Observer*, 8(2): 143-168.
- Hanson, J.K. and Sigman, R. (2013), 'Leviathan's Latent Dimension: Measuring State Capacity for Comparative Political Research', paper presented at the World Bank Political Economy Brown Bag Lunch Series, 21 March.
- Hausmann, R., Pritchett, L. and Rodrik, D. (2005), 'Growth Accelerations', *Journal of Economic Growth*, 10(4): 303–329.
- Hausmann, R., Rodriguez, F. and Wagner, R. (2008), 'Growth collapses', in C.M. Reinhart, C.A. Vegh and A. Velasco. (eds), *Money, Crises and Transition* (Cambridge: MIT Press): 376–428.
- Hopf, T. (2002), 'Making the Future Inevitable: Legitimizing, Naturalizing and Stabilizing. The Transition in Estonia, Ukraine and Uzbekistan', *European Journal of International Relations*, 8(3): 403-436.
- Huntington, S.P. (1991), *The Third Wave: Democratization in the Late Twentieth Century* (Oklahoma: University of Oklahoma Press).
- Jerzmanowski, M. (2006), 'Empirics of hills, plateaus, mountains and plains: A Markov-switching approach to growth', *Journal of Development Economics*, 81(2): 357–385.
- Jones, B.F. and Olken, B.A. (2008), 'The anatomy of start-stop growth', *The Review of Economics and Statistics*, 90(3): 582–587.
- Kasemets, A. (2012), 'The Long Transition to Good Governance: the case of Estonia', paper presented at the XXII World Congress of the IPSA.
- Katzenstein, P.J. (1985), *Small States in World Markets: Industrial Policy in Europe* (Ithaca: Cornell University Press).
- Kim, N.K. (2014), 'Revisiting Economic Shocks and Coups', *Journal of Conflict Resolution*, 60(1): 3-31.
- Krugman, P. (2011), 'Depression and Democracy', *New York Times*, 12 December.
- Lindvall, J. (2012), 'The Political Consequences of the Great Depression and the Great Recession: Remarkably Similar', *Swiss Political Science Review*, 18(4): 514-517.
- Linz, J.J. (1978), *The Breakdown of Democratic Regimes: Crisis, Breakdown, and Reequilibration* (Baltimore: The Johns Hopkins University Press).

- Lucero, J.A. (2001), 'Crisis and Contention in Ecuador', *Journal of Democracy*, 12(2): 59-73.
- Luebbert, G.M. (1987), 'Social Foundations of Political Order in Interwar Europe', *World Politics*, 39(4): 449-478.
- Moon, C. and Kim, S. (2000), 'Democracy and Economic Performance in South Korea', in L. Diamond and B. Kim (eds), *Consolidating Democracy in South Korea* (London: Lynne Rienner Publishers): 139-173).
- Møller, J. and Skaaning, S. (2010), 'From each according to his need, to each according to his ability: A comparative analysis of post-communist corruption', *Acta Politica*, 45(3): 320-345.
- Møller, J., Schmotz, A. and Skaaning, S. (2015), 'Economic Crisis and Democratic Breakdown in the Interwar Years: A Reassessment', *Historical Social Research*, 40(2): 301-319.
- O'Donnell, G. (1973), *Modernization and bureaucratic-authoritarianism: Studies in South American Politics* (Los Angeles: University of California Press).
- Overy, R.J. (2010), *The inter-war crisis, 1919-1939* (Harlow: Longman).
- Piattoni, S. (2001), 'Clientelism in Historical and Comparative Perspective', in S. Piattoni. (ed), *Clientelism, Interests, and Democratic Representation* (New York: Cambridge University Press): 1-30).
- Political Risk Services Group (2014), *International Country Risk Guide Methodology*, <http://www.prsgroup.com/about-us/our-two-methodologies/icrg>.
- Pritchett, L. (1998), 'Patterns of economic growth: Hills, plateaus, mountains, and plains', *Policy Research Working Paper No. 1947*, World Bank.
- Przeworski, A. (1991), *Democracy and the market* (New York: Cambridge University Press).
- Przeworski, A. and Limongi, F. (1997), 'Modernization: Theories and facts', *World politics*, 49(2): 155-183.
- Przeworski, A., Alvarez, M.E., Cheibub, J.A. and Limongi, F. (2000), *Democracy and Development* (New York: Cambridge University Press).
- Rauch, J.E. and Evans, P.B. (2000), 'Bureaucratic structure and bureaucratic performance in less developed countries', *Journal of Public Economics*, 75(1): 49-71.

- Reddy, S. and Minoiu, C. (2009), 'Real income stagnation of countries 1960–2001', *Journal of Development Studies*, 45(1): 1–23.
- Rodrik, D. (1999), 'Where did all the growth go? External shocks, social conflict, and growth collapses', *Journal of Economic Growth*, 4(4): 385–412.
- Rothstein, B. (2011), *The Quality of Government* (Chicago: University of Chicago Press).
- Rothstein, B. and Teorell, J. (2008), What is Quality of Government? A Theory of Impartial Government Institutions, *Governance*, 21(2): 165-190.
- Sarkees, M.R. and Wayman, F. (2010), *Resort to War: 1816 - 2007* (Washington DC: CQ Press).
- Saylor, R. (2013), 'Concepts, Measures, and Measuring Well: An Alternative Outlook', *Sociological Methods & Research*, 42(3): 354-391.
- Solimano, A. (2002), 'Crisis and Dollarization: An Overview', in P. Beckerman and A. Solimano (eds), *Crisis and Dollarization in Ecuador* (Washington DC: The World Bank): 1-17.
- Svolik, M. (2008), 'Authoritarian Reversals and Democratic Consolidation', *American Political Science Review*, 102(2): 153-168.
- Svolik, M. (2013), 'Learning to Love Democracy: Electoral Accountability and the Success of Democracy', *American Journal of Political Science*, 57(3): 685-702.
- Svolik, M. (2015), 'Which Democracies Will Last? Coups, Incumbent Takeovers, and the Dynamic of Democratic Consolidation', *British Journal of Political Science*, 45(4): 715-738.
- Weiss, L (1998), *The Myth of the Powerless State* (Ithaca: Cornell University Press).

Table 1

Three Bureaucratic Qualities and their Crisis Shield

Civil servant quality	Competence	Efficiency	Autonomy
Civil servant behaviour (crisis shield)	Prudence in policymaking	Disciplined and swift implementation	Impartial implementation

Table 2
Logit and LPM Regressions of Democratic Breakdowns, 1903–2010

	Base model		Main model		Good governance		Year F-E		LPM model		Annual growth rates	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Economic crisis t_{-1}	1.077** (0.430)	1.221*** (0.446)	1.224*** (0.451)	1.365*** (0.463)	1.112** (0.459)	1.256*** (0.469)	1.775*** (0.603)	1.758*** (0.629)	-0.002 (0.006)	0.010 (0.009)	-0.001* (0.000)	-0.001*** (0.001)
Bureaucratic quality t_{-1}	-2.093*** (0.401)	-1.622*** (0.440)	-1.710*** (0.429)	-1.204*** (0.467)	-1.513*** (0.523)	-0.896 (0.566)	-1.780*** (0.654)	-1.152* (0.699)	-0.013** (0.006)	-0.010* (0.006)	-0.013** (0.006)	-0.015** (0.006)
Crisis t_{-1} * Bur. qual. t_{-1}		-1.022*** (0.385)		-1.094*** (0.387)		-1.202*** (0.396)		-1.203** (0.468)		-0.008* (0.004)		0.001** (0.000)
GDP/cap (log) t_{-1}	-0.039 (0.775)	-0.234 (0.769)	0.217 (0.899)	0.003 (0.895)	0.303 (0.923)	0.144 (0.935)	-0.706 (1.418)	-0.813 (1.401)	-0.020 (0.014)	-0.021 (0.014)	-0.019 (0.013)	-0.019 (0.013)
Population size (log) t_{-1}	2.418* (1.419)	2.805* (1.461)	3.068** (1.478)	3.308** (1.525)	2.998* (1.544)	3.229** (1.594)	4.068* (2.295)	4.523* (2.365)	-0.008 (0.014)	-0.009 (0.014)	-0.008 (0.014)	-0.009 (0.014)
Regional democracy level t_{-1}			-7.703 (5.207)	-7.985 (5.223)	-7.730 (5.590)	-8.725 (5.589)	-14.925* (8.169)	-16.654** (8.299)	-0.014 (0.061)	-0.019 (0.061)	-0.008 (0.061)	-0.008 (0.061)
Educational equality t_{-1}			-1.225** (0.513)	-1.322** (0.543)	-1.153** (0.538)	-1.314** (0.568)	-1.311* (0.692)	-1.441* (0.757)	-0.005 (0.006)	-0.005 (0.006)	-0.005 (0.006)	-0.006 (0.006)
Ongoing conflict t_{-1}			0.189 (0.601)	0.355 (0.612)	0.389 (0.610)	0.633 (0.631)	0.612 (0.746)	1.011 (0.778)	0.016 (0.013)	0.015 (0.013)	0.016 (0.013)	0.015 (0.013)
Democracy level t_{-1}					-3.268 (2.340)	-3.151 (2.403)	-4.858* (2.915)	-5.266* (2.991)	-0.066** (0.031)	-0.063** (0.031)	-0.066** (0.031)	-0.065** (0.031)
Corruption t_{-1}					-4.752 (4.523)	-4.378 (4.682)	-2.217 (5.507)	-1.825 (5.744)	0.017 (0.050)	0.020 (0.050)	0.021 (0.050)	0.023 (0.050)
Party Linkages t_{-1}					-0.016 (0.468)	0.012 (0.492)	-0.045 (0.562)	0.153 (0.609)	0.014** (0.006)	0.015** (0.006)	0.014** (0.006)	0.015** (0.006)
Judicial accountability t_{-1}					-1.508** (0.740)	-1.897** (0.800)	-1.607** (0.811)	-1.823** (0.885)	-0.004 (0.008)	-0.004 (0.008)	-0.004 (0.008)	-0.005 (0.008)
Constant									0.272 (0.187)	0.276 (0.187)	0.264 (0.185)	0.275 (0.185)
N	1545	1545	1545	1545	1545	1545	1545	1545	3858	3858	3858	3858
# of breakdowns	73	73	73	73	73	73	73	73	73	73	73	73
Country fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
World order dummies	Y	Y	Y	Y	Y	Y						
Decade dummies	Y	Y	Y	Y	Y	Y						
Year dummies							Y	Y	Y	Y	Y	Y
Time polynomials t , t^2 , t^3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Note: Standard errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 3*Logit Regressions of Onset and Duration of Economic Crises, 1903–2010*

	<i>Crisis onset</i>			<i>Crisis duration</i>		
	<i>Base model</i> <i>(1)</i>	<i>Main model</i> <i>(2)</i>	<i>LPM model</i> <i>(3)</i>	<i>Base model</i> <i>(4)</i>	<i>Main model</i> <i>(5)</i>	<i>LPM model</i> <i>(6)</i>
Bureaucratic quality t_{-1}	-0.496 (0.318)	-0.012 (0.401)	-0.000 (0.011)	-0.231 (0.302)	-0.250 (0.324)	-0.037* (0.019)
GDP/cap (log) t_{-1}	1.232 (0.810)	2.726*** (1.023)	0.082*** (0.030)	-2.624*** (0.716)	-3.311*** (0.937)	-0.257*** (0.060)
Population size (log) t_{-1}	1.334 (0.868)	2.442*** (0.944)	0.013 (0.029)	1.062 (0.839)	0.365 (1.004)	-0.118* (0.069)
Regional democracy level t_{-1}		-11.353*** (4.202)	-0.387*** (0.126)		4.196 (4.199)	-0.574** (0.248)
Educational equality t_{-1}		-0.418 (0.423)	-0.014 (0.011)		0.471 (0.442)	0.005 (0.023)
Ongoing conflict t_{-1}		-0.225 (0.924)	0.019 (0.027)		1.782 (1.104)	0.072 (0.047)
Constant			-0.644* (0.343)			4.176*** (0.849)
N	713	713	2430	547	547	1413
Country fixed effects	Y	Y	Y	Y	Y	Y
World order dummies	Y	Y		Y	Y	
Year dummies			Y			Y
Time polynomials t, t^2, t^3	Y	Y	Y	Y	Y	Y

Note: Standard errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 4
Negative Binomial Regression Models of Domestic Instability, 1919–2010

	<i>Crisis years</i>	<i>Non-crisis years</i>	<i>Interaction model</i>
	(1)	(2)	(3)
Bureaucratic quality t_{-1}	-0.389*** (0.062)	-0.076 (0.067)	-0.253*** (0.051)
Economic crisis t_{-1}			0.198*** (0.075)
Bur. qual. t_{-1} * Crisis t_{-1}			0.016 (0.062)
GDP/cap (log) t_{-1}	0.217** (0.094)	0.115 (0.102)	0.140** (0.063)
Population size (log) t_{-1}	0.349*** (0.059)	0.554*** (0.052)	0.494*** (0.035)
Regional democracy level t_{-1}	3.453*** (0.524)	0.694** (0.348)	1.511*** (0.280)
Educational equality t_{-1}	-0.034 (0.067)	-0.125* (0.067)	-0.081* (0.046)
Ongoing conflict t_{-1}	0.751*** (0.163)	0.580*** (0.148)	0.636*** (0.100)
Constant	-6.601*** (0.838)	-7.759*** (0.997)	-7.024*** (0.688)
N	572	835	1416
Country fixed effects	Y	Y	Y
Decade dummies	Y	Y	Y
World order dummies	Y	Y	Y

Note: Standard errors are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.