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Great Expectations, Veto Players, and the Changing Politics of Banking Crises

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SRC Discussion Paper No 28

January 2015

SRC
Systemic Risk Centre

Discussion Paper Series

ISSN 2054-538X

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Keywords: banking crises, survival

This paper is an updated version of the paper with the same title presented at the 'Political economy of systemic risk' conference held at the LSE on 6th March 2014, and is published as part of the Systemic Risk Centre's Discussion Paper Series. The support of the Economic and Social Research Council (ESRC) in funding the SRC is gratefully acknowledged [grant number ES/K002309/1].

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Published by
Systemic Risk Centre
The London School of Economics and Political Science
Houghton Street
London WC2A 2AE

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Word Count: 8495

The support of the Economic and Social Research Council (ESRC) in funding the Systemic Risk Centre is gratefully acknowledged [grant number ES/K002309/1]. This research also received financial support from Chwieroth's Mid-Career Fellowship from the British Academy for the Humanities and the Social Sciences and from both authors' Discovery Project award from the Australian Research Council. An earlier version of this paper was presented at the annual meeting of the International Political Economy Society, Madison, WI, 11 - 12 November 2011. The authors are grateful for helpful comments on earlier drafts provided by Christopher J. Anderson, David Andrews, Leonardo Baccini, Ken Benoit, Frederick Boehmke, Janet Box-Steffensmeier, Mark Buntaine, Richard Carney, Keith Dowding, Zachary Elkins, Eric Helleiner, Christopher Gandrud, Julia Gray, Dominik Hangartner, Philip Keefer, Luke Keele, Jouni Kuha, David Leblang, Amanda Licht, Christopher Meissner, James Melton, Paul Preston and Dennis Quinn. The authors would like to acknowledge the research assistance of Hortense Badarani, Noemie Chomet, Alexia Leckie and Alexander Parsons.

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Recent financial crises have demonstrated once again that they often have dramatic political as well as economic consequences, including loss of office for many incumbent democratic governments. In the five years since 2007, incumbent political parties in those countries suffering banking crises lost office at a rate 70% higher than in the preceding five year period.[1] Despite the apparently powerful impact of such crises on the ability of political elites to remain in power, disciplinary knowledge of the political aftermaths of financial crises is confined to narrow time periods and country and regional experiences (Bernhard and Leblang 2008, 2012; Bermeo and Pontusson 2012; Barreyre 2011; Broz 2013; Crespo-Tenorio, Jensen and Rosas 2013; Eichengreen 1992; Frieden 1987; Gourevitch 1986; Haggard 2000; Hellwig and Coffey 2011; Kahler and Lake 2013; MacIntyre 2002; MacIntyre, Pempel and Ravenhill 2008; Pepinsky 2012; Simmons 1994).[2] Much of this scholarship focuses on how political institutions and economic openness shape modern governments' accountability for policy outcomes rather than how institutions shape policy change after crises. We show that there are large payoffs from taking a more panoramic historical view that emphasizes institutional constraints.[3]

We offer a dynamic and conditional theory of the relationship between banking crises and the survival of incumbent political parties in democratic countries. We argue that since

[1] We discuss our data sources below.

[2] The literature investigating the political effects of financial crises generally only uses post-1970 data and does not justify this choice on the grounds that the relationship between financial crises and politics might vary over time. Some literature on American political development has addressed the question of whether the incidence of economic voting in the United States has changed over time (e.g. Lin 1999; Lynch 1999; DeCanio 2006).

[3] On the importance of time in political analysis, see Pierson 2004.

the Second World War, the emergence of societal "great expectations" of government interventions to forestall economic depressions have sharply raised the stakes for political incumbents facing banking crises, a particularly acute form of financial crisis.[4] The consequence has been that governments facing institutional obstacles to undertake such interventions during and after banking crises now suffer much greater levels of punishment than in the past and compared to their peers. Institutional constraints do feature in a number of relevant accounts, but they provide a static depiction of how voters perceive and react to such constraints (Haggard 2000; Haggard and Kaufman 1992; Oatley 2003). In contrast, we argue that the combination of changing societal expectations of government policy and variations within democratic countries, based on how veto players constrain policy change, have reshaped the survival prospects for incumbent governments over the long run.

The first step in our argument is to outline why crisis-related political punishment is a modern phenomenon. Our second step is to outline why governments presiding over banking crises are often punished for reasons other than the bad economic outcomes that often follow crises. There are various possible such reasons. For instance, crises may signal incumbent incompetence in an era when so many governments have made promises to prevent them through policies such as prudential regulation. Improved economic knowledge has been a double-edged sword for politicians: postwar governments now stand a better chance than in the past of avoiding deep depressions – indeed, output losses following banking crisis were typically larger in the pre-war era (Bordo, Eichengreen, Klingebiel, Martinez-Peria and Rose 2001; Reinhart and Rogoff 2009) – but this improvement in public policy has not generally

[4] Emphasizing the impact of great expectations concerning government economic policy responsibilities might be seen as mere conventional wisdom (Blyth 2002; Eichengreen 1992; Frieden 2006; Simmons 1994). However, its relevance for the political consequences of financial crises has not been systematically explored.

rewarded political incumbents facing such crises. We argue that this is because modern voters know that governments can intervene to mitigate crises and expect them to do so, and will not be forgiving if governments are institutionally constrained. We expect the same institutional constraints to have less political salience in the pre-war era where such expectations were less well developed and widely shared.

We test our argument using a new dataset of 100 democratic countries since the early nineteenth century. We find strong support for our claims: the survival prospects for incumbent political parties in democratic countries are conditional on time and on institutional constraints. Political punishment in the aftermath of a banking crisis is mainly a modern phenomenon and is most evident in systems with polarized veto players.

The rest of this paper is organized as follows. The next two sections examine the existing literature and outline our argument. We then present our methods, data and results. We conclude with some empirical illustrations of our argument and by discussing the implications of our theory and findings.

THE LITERATURE

Economists have focused heavily on the economic causes and aftermaths of financial crises, but have so far been unconcerned with their political consequences (Brunnermeier, Crockett, Goodhart, Persaud and Shin 2009; Corsetti, Pesenti and Roubini 1998; Krugman 1998; Laeven and Valencia 2010; Reinhart and Rogoff 2009; Schularick and Taylor 2012). A general political economy literature explores the relationship between economic crises and politics. This literature finds that recessions are usually bad news for political incumbents, though it assumes that such incumbents have various policy tools to mitigate this effect (Alesina, Ozler, Roubini, and Swagel 1992; Alesina and Rosenthal 1989; 1995; Clark, Golder, and Poast 2012; Edwards and Tabellini 1991). Since banking crises nevertheless tend

to be associated with comparatively deep and long recessions, voters may punish incumbents presiding over banking crises because they serve as "recessionary accelerators" (Jordà, Schularik, and Taylor 2012; Reinhart and Rogoff 2009).

This recessionary accelerator mechanism is consistent with some claims made in the literature on economic voting, which finds empirical support for the relationship between economic and electoral performance in democratic countries.[5] Although all schools in this literature see economic crises as bad news for incumbents, they do so for somewhat different reasons.

The "retrospective voting" school contends that in elections voters prioritise outcomes and judge incumbents based on simple metrics of past economic performance, such as whether their economic situation has improved or worsened since the previous election (Fiorina 1981). A related school of thought associated with Achen and Bartels' notion of "blind retrospection" is pessimistic about the ability of voters to understand and assess relevant economic facts and causal relationships, but still predicts punishment of incumbents for negative outcomes: "voters regularly punish governments for acts of God, including droughts, floods and shark attacks" (Achen and Bartels 2004, abstract).

The "prospective voting" school contends that voters are more rational and forward-looking than the retrospective school assumes and that they assess the ability of competing candidates or parties to manage the economy in the future (Anderson 1995; Lewis-Beck 1988; MacKuen, Erikson, and Stimson 1992; Powell and Whitten 1993; Smith 2004). Assigning blame for past outcomes can be difficult for voters: policies that contribute to banking crises and economic performance more broadly are difficult to assess, making it hard to hold governments accountable for their onset (Keefer 2007, 608-9). Prospective voters should pay more attention to whether incumbents will be better than alternatives in mitigating

[5] For a review of this large literature, see Anderson 2007, 278-281.

the impact of crises and managing the economy in the future. The onset of a banking crisis may tarnish incumbents' reputation for economic competence, as illustrated by the case of the British Labour government of 2007-10 (Barnes and Hicks 2012).

While this literature has contributed to our understanding of how economic performance shapes democratic politics, we still know surprisingly little about the specific impact of financial crises. There has been little scrutiny of how voters respond to the role of institutions in shaping policy change after banking crises, compared to how institutions may serve as mechanisms for generating accountability of incumbent governments (Crespo-Tenorio, Jensen and Rosas 2013; Pepinsky 2012). Even less attention has been paid to how the propensity of voters to punish incumbent governments might have changed over time (Duch and Stevenson 2008, 1-2).

THE ARGUMENT

An epochal shift in societal expectations concerning government responsibilities for preventing and mitigating financial crises has been the result of a number of related developments over the past century, including democratization, improvements in macroeconomic knowledge, new public policy commitments, and rising financial wealth. The experiences of the Great Depression and World War Two, the process of democratization, and the accumulation of economic knowledge in the first half of the twentieth century substantially raised voter expectations concerning government policy responsibilities for economic stabilization (Alesina and Rosenthal 1989, 382; Bailey 1964, 11; Berman 2006; Blyth 2002; Ruggie 1983; Eichengreen 1992; Frieden 2006; Ikenberry 1992; Krugman 2007;

Lin 1999; Lynch 1999, 2002; Simmons 1994).[6] The perceived need for governments to manage financial markets in the broader public interest was particularly strong after the events of the early 1930s, prompting a variety of new regulations (Helleiner 1994, 25-50. See also Allen, Cope, Dark and Witheridge 1938; Busch 2009; Hall 1993). As one early commentator on America's 1933 Banking Act argued, "the new law makes banking more of a social enterprise and increases the responsibility of the federal government for banking stability" (Preston 1933, 585). A more explicit example of innovative promises to voters regarding financial stabilization was contained in the 1950 British Labour Party manifesto, which proposed to "take whatever measures may be required to control financial forces, so as to maintain full employment and promote the welfare of the nation."[7]

The virtual absence of banking crises in the three decades after 1945 reinforced voter expectations of financial stability as a normal and politically achievable condition. Mass education and the media have also spread awareness of the possibilities of government stabilization policies. The material stake of voters in financial stabilization has also risen considerably since 1945 due to growing financial wealth and financial inclusiveness.[8] The result is that despite (or even because of) the re-emergence of banking crises and a

[6] We are not claiming that macroeconomic interventions were non-existent or politically irrelevant before the mid-twentieth century, but they were far less frequent and extensive, particularly under the gold standard.

[7] http://www.labour-party.org.uk/manifestos/, accessed 12 November 2013.

[8] Financial crises are usually associated with sharp falls and higher volatility in asset prices. See Borio and Lowe 2002; Reinhart and Rogoff 2009, chapter 10.

deregulatory trend in finance since the mid-1970s, most governments still accept and are seen as responsible for the maintenance of financial stability (Lavelle 2013).[9]

The result of this sustained higher level of societal demand for financial stabilization since the mid-twentieth century is that modern governments and central banks must be seen not only to try to prevent financial crises, but also to undertake stabilization measures when they do occur. Prior to 1945, public intervention to stabilize banking systems was comparatively limited in magnitude and scope, reflecting "the more limited political pressures to provide it" (Bordo, Eichengreen, Klingebiel, Martinez-Peria and Rose 2001, 71).[10] By contrast, since then, "it is unthinkable that any government or central bank would now stand idly by and watch the closure of any of its major banks, the realization of large-scale losses on the bank deposits of its citizens and the collapse of its financial markets, if the authorities could avoid such events" (Goodhart 1999, 356-357).

However, the contemporary politics of financial stabilization are more complicated than this suggests. Extensive interventions in the wake of crises may have become routine, but they are controversial. The re-emergence of banking crises after the early 1970s has coincided with a process of rapid financial deregulation and deepening, and a striking increase in the size and complexity of both individual banks and banking systems in many countries.[11] In the case of the UK, for example, bank assets as a percentage of GDP rose from

[9] For UK evidence, see BBC World Service 2009, and in the Netherlands, see van der Cruijsen, de Haan, Jansen, and Mosch 2013. On the general persistence of demands for welfare despite deregulation, see Newman and Jacobs 2010.

[10] On the modest pre-war interventions in Britain, France, and the United States, see Kindleberger and Aliber 2011, 213-228; Taus 1943; and Wood 2005.

[11] Among the extensive literature on this topic, see Alessandri and Haldane 2009, Johnson and Kwak 2010.

an average of about 50% over 1880-1970 to 200% in 1980 and over 500% by 2000. One consequence is that during crises "there has been a dramatic expansion in both the scale and scope of state liquidity insurance to the banking system" (Alessandri and Haldane 2009, 5).[12] This trend has been widely interpreted in the media and by voters as favouring the interests of financial firms and the relatively wealthy, even if governments and central banks feel they have no choice but to prevent banking systems from collapsing (Keefer 2007; Rosas 2009). Thus, opinion surveys often report mixed attitudes: voters strongly distrust "bankers" and are less willing to support "bank bailouts", but they generally remain robustly in favour of government intervention to prevent generalized financial and economic collapse (Gallup 2009).

These developments have important implications for the propensity of voters to punish incumbent governments presiding over banking crises. Firstly, given the substantial increase in the demand for policies to promote financial stability in the postwar era, the propensity of voters to punish governments presiding over crises should have increased compared to the past. Such crises may be a product of unfortunate circumstances, bad policy, or more likely some combination of both, but it will be difficult for most voters accurately to determine causation. Thus, a simpler decision rule is more plausible in an era when all governments try to meet societal demands for financial stability: punish incumbents when banking crises occur.

Second, rising societal demands for intra-crisis stabilization measures mean that institutional obstacles to policy responses become more politically salient. As Rosas (2006:9) observes, "The heightened attention that the mass media tend to place on banking crises, and their direct economic effects on citizens, all but guarantee that the main features of government response, if not the exact details, will turn into a salient political issue."

[12] For cross-country data, see Laeven and Valencia 2012. See also Pontusson and Raess 2012.

Governments will be especially vulnerable to punishment for failing take adequate stabilization measures – but why would any government choose such a path?

We build on some existing accounts by highlighting how the presence of polarized veto players can produce policy gridlock in responding to banking crises (Alesina and Drazen 1991; Crespo-Tenorio, Jensen and Rosas 2013, 9; Tsebelis 2002). Haggard finds that multiple veto players can limit the ability of governments to respond effectively to economic shocks (Haggard 2000; Haggard and Kaufman 1992).[13] Similarly, Oatley finds stabilization after inflationary crises is delayed in democracies with highly polarized veto players, but more rapidly achieved in environments where such institutional obstacles are absent (Oatley 2003). MacIntyre argues that countries with a low dispersal of veto authority can suffer from the different problem of excessive policy volatility during crises, and thus posits a U-shaped relationship between the number of veto players and the costs of financial crises (MacIntyre 2002). However, we expect voters to respond more negatively to readily observable policy gridlock than to excessive policy activism in an age of great societal expectations. Indeed, we fail to uncover a U-shaped relationship between banking crises, the number of veto players, and incumbent survival (see Appendix).

We apply the same logic concerning voter judgement of policy outcomes as for the attribution of blame. One might expect modern voters to inflict greater punishment on governments that choose deliberately not to intervene than on those governments that face constraints in doing so. Again, however, voters will likely find it difficult to discern how much a bad policy outcome is truly beyond the control of the incumbent government and how much it is due to choice or incompetence. While high dispersal of veto authority may blur

[13] Veto players may also weaken the quality of financial regulation, particularly in developing country democracies, by limiting executive control over who is appointed to regulate the financial system (Satyanath 2006).

responsibility, in an era when societal demands for financial stability are intense, voters are less likely to forgive bad policy outcomes even if governments are institutionally constrained. Thus, voters may choose to punish incumbents for bad policy outcomes irrespective of their apparent source.[14]

It is also possible that the number of veto players will affect the *kinds* of post-crisis policy interventions that governments choose, shaping voters' perceptions of political incumbents. However, a number of studies find no evidence to support this conjecture (Grossman and Woll 2013; Keefer 2007; Rosas 2009). Therefore, we expect banking crises to have a larger negative impact on incumbent survival in political systems with more veto players in the post-war era.

DATA AND METHOD

To test our argument we use a new long-term historical database from 1831 to 2011. We provide our sample and summary statistics in the Appendix.

We follow others in constructing a yearly indicator of "incumbent spells" based on the partisan affiliation of the chief executive (Crespo-Tenorio, Jensen, and Rosas 2013). This *Partisan spells* indicator measures when incumbent political parties, not individual leaders, lose office. It allows us to take into account institutional features, such as term limits and fixed vs. endogenous electoral cycles, which would otherwise make comparison between

[14] For a similar argument, see Healy and Malhotra 2013, 296. We also apply this logic to potential "external constraints" on policy responses such as financial openness or IMF conditionality, which some authors argue are relevant (Crespo-Tenorio, Jensen and Rosas 2013; Hellwig 2007). It will be difficult for voters to judge the seriousness of such constraints: capital controls can be re-introduced, and incumbents may be using the IMF as a scapegoat.

parliamentary and presidential regimes difficult. The Appendix provides coding rules and data sources.

The exact timing of a *Banking crisis* is difficult to ascertain, so we follow convention in measuring the incidence of crises by country-year. We code a country-year as "1" when an incumbent spell experiences a banking crisis and "0" otherwise, with some spells experiencing multiple crises. Our primary banking crisis measure is from Reinhart and Rogoff (R&R), who provide the most comprehensive data on crises since the early nineteenth century (Reinhart and Rogoff 2008). The R&R measure offers an expansive definition that identifies banking crises as occurring whenever there is any distress in the banking system. Since it therefore includes "non-systemic" banking crises, this should make it more difficult to uncover a positive relationship between crises and political turnover. In our sample the R&R measure yields 113 crises spread over 304 years across 56 democratic countries from 1831 to 2010. We observe 45 crises in 17 countries in the pre-war period and 67 crises in the full sample in the post-war period. Crises were rare in the post-war period until the mid-1970s (only three crises spread over four years across three countries) after which they occurred more frequently and with longer duration. Overall, the R&R measure yields 63 crisis-years in the pre-war period and 241in the post-war period.

As a robustness check, we also use a narrower alternative measure of the onset of a banking crisis from Laeven and Valencia (L&V) (Laeven and Valencia 2010). This measure, which extends from 1970 to 2011, excludes non-systemic banking system distress but covers nearly twice as many countries as the R&R dataset (100 in our sample). It yields 205 crisis-years in total arising from 46 crises. Our focus on democratic countries leads us to restrict our analysis to those governments where the Polity IV measure of democracy is above 5 for the full incumbent spell. This leaves us with 729 partisan spells when we use the R&R sample, of

which 161 experienced a crisis (22.1%), and 717 spells when we use the L&V sample, of which 103 (14.4%) experienced a crisis.

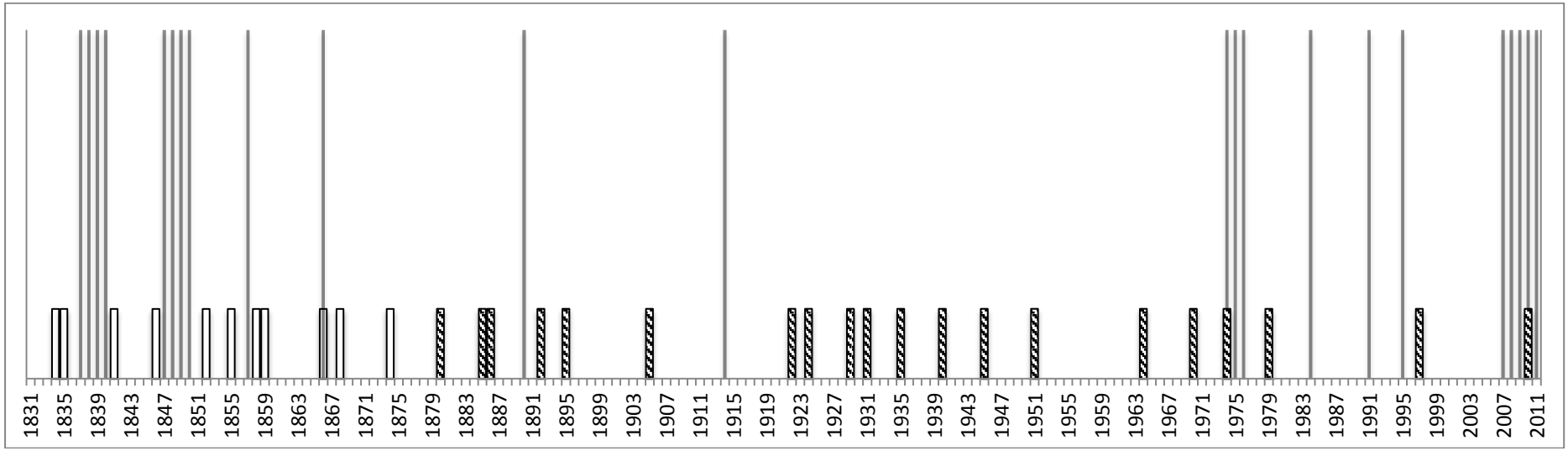
Figure 1 shows the basic structure of our data for the cases of Britain and Germany. The high shaded bars represent banking crises using both measures and the low cross-hatched bars indicate the commencement of new partisan spells during democratic periods. The low unfilled bars portray changes in the holder of executive power during non-democratic periods. We see two partisan spell terminations in Britain (1974, 2010) and three in Germany (1925, 1926, 2009) during a banking crisis.

To assess whether veto players condition the effect of banking crises on incumbent survival, we use the Political Constraints Index Dataset (Henisz 2013). Based on a simple spatial model of political interaction, this index captures the number of independent actors with veto power and the distribution of political preferences across those actors. It ranges from 0 to 1, with higher values indicating a greater number of veto players with distinct political preferences.[15] We create an interaction term that combines the effect of a banking crisis with our measure of veto players. This interaction term permits us to assess the conditional effect of banking crises across various levels of veto players on the expected rate of incumbency survival.

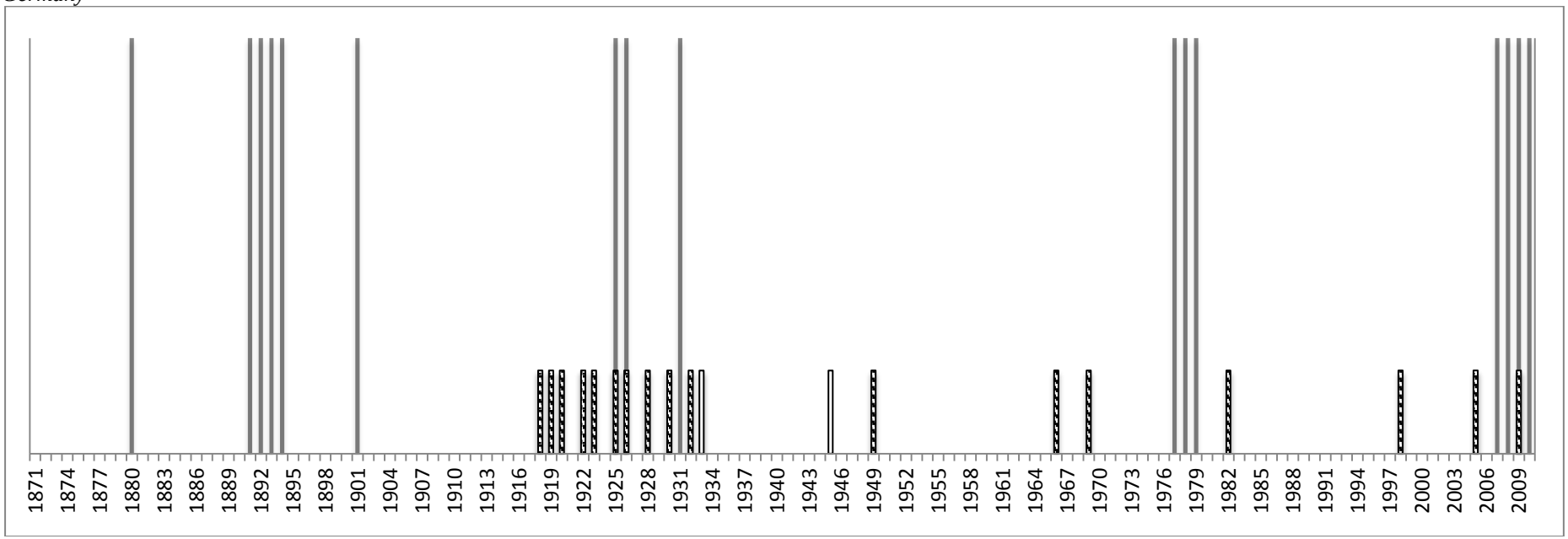
[15] This measure of political constraints differs substantially from the "Checks" measure provided in the Database of Political Institutions (Beck, Clarke, Groff, Keefer and Walsh 2001). Unlike the Political Constraints Index, Checks assumes a simple linear relationship between additional independent vetoes and executive constraints (see Henisz 2004). In addition, Checks is only available from 1975 and thus does not permit a panoramic analysis.

Figure 1. *Banking Crises and Partisan Spell Terminations in Britain and Germany, 1831 – 2011.*

Britain



Germany



The high shaded bars indicate banking crisis-years and the low cross-hatched bars indicate new partisan spells during democratic periods. The low unfilled bars represent changes in the holder of executive power during non-democratic periods.

We include control variables for degree of democracy, executive-dominated regimes, economic growth, GDP per capita, annual inflation rate, and the cumulative number of crisis-years. We use the cumulative democracy score from Polity IV, which runs from 6 to 10, with higher values indicating greater democracy (Marshall, Jaggers and Gurr 2011). We control for executive dominance because "clarity of policy responsibility" arguments suggest that it will easier for voters to assign blame to incumbents in such systems (Crespo-Tenorio, Jensen and Rosas 2013; Lewis-Beck and Paldam 2000; Powell and Whitten 1993). Conversely, such systems may have stronger incumbency advantages because the survival prospects of the chief executive do not depend on parliamentary coalition partners. We classify a political system as *Executive-dominated* if our partisan spell coding rules identify the chief executive as a president. The Maddison project and the World Bank's World Development Indicators provide data on economic growth. Growth is a crucial control variable since we seek to account for its confounding effect on banking crisis onset and partisan spell termination. However, since banking crises usually create or amplify economic downturns, this variable could be seen as post-treatment variable that should not be included in the model – an issue we discuss later. Data on GDP per capita from the Maddison project and Penn's World Tables are included to control for the level of development. We also include inflation data from Reinhart and Rogoff and the IMF's International Financial Statistics on the grounds that high inflation might be associated with regime instability, though data limitations preclude us from including this variable in models in the pre-war era.

Collinearity between veto players and democracy could compromise our results. Veto players and democracy, though analytically distinct, are highly correlated empirically.[16] As part of our robustness checks we therefore use residualization by regressing Veto Players on

[16] The correlation between Veto Players and Democracy is nearly 0.80.

Democracy and then saving the residuals. The residuals, which have no correlation with democracy, capture the variation in veto players that is not explained by democracy. We replace Veto Players with these residuals and re-estimate the model, which enables us to estimate the unbiased effect of veto players (Clarke and Stone 2008, 389).

We estimate a series of Cox proportional hazard models that model the expected length of a partisan spell for an incumbent party. Since we emphasize how changes over calendar time (i.e. years elapsed since 1831) shape the occurrence of partisan spell termination within a country – an event that occurs more than once – we use a conditional elapsed time model with stratification (Box-Steffensmeier and Jones 2004).[17] This model is capable of addressing the possibilities that partisan spells develop sequentially and that their timing is different across occurrences (or strata).[18] We test for non-proportional hazards and, where appropriate, we use smoothing methods to capture potential nonlinearity in the covariates (Keele 2010). We use simulations to interpret our findings (King, Tomz and Wittenberg 2000; Gandrud 2013).

RESULTS

We first estimate models that use the complete long-run data set from 1831 to 2010. Table 1 provides the results in the form of coefficients for different models of incumbency

[17] As opposed to gap time, which examines the likelihood of an event occurring since the last event, elapsed time allows us to frame our results as how likely a partisan spell termination is in a specific year.

[18] Hausmann tests indicate the baseline hazard varies across each stratum, which supports our model specification. When we account for unobserved heterogeneity by adding a country-specific frailty term to the model, we find the estimated frailty parameter to be insignificant, with plots of the frailty estimates showing no significant variation across countries.

survival in both periods. Positive coefficient values suggest an upward shift in the hazard value (i.e., an incumbent party faces greater risk of partisan spell termination). Negative coefficient values imply the reverse.

Considerable caution is warranted when interpreting interaction effects in nonlinear models. A significant coefficient on the interaction term is "neither a necessary nor sufficient condition" for identifying the presence of a substantively important interactive relationship (Berry, DeMerritt and Esarey 2010, 25). The preferred method to interpret the effect of interaction terms is through graphical presentation of the relationship between changes in the variables constituting the interaction term and the outcome of interest (Brambor, Clark, and Golder 2006). We therefore plot the simulated marginal effect of a banking crisis as the veto player variable (or its residual) varies from its observed minimum to its maximum values; the median line summarizes the central tendency from the simulations. The ribbon represents the middle 95% of 1,000 simulations and the density of the ribbon indicates the set of values with the highest probability. The plots also include a histogram of the distribution of the veto player variable (or its residual).

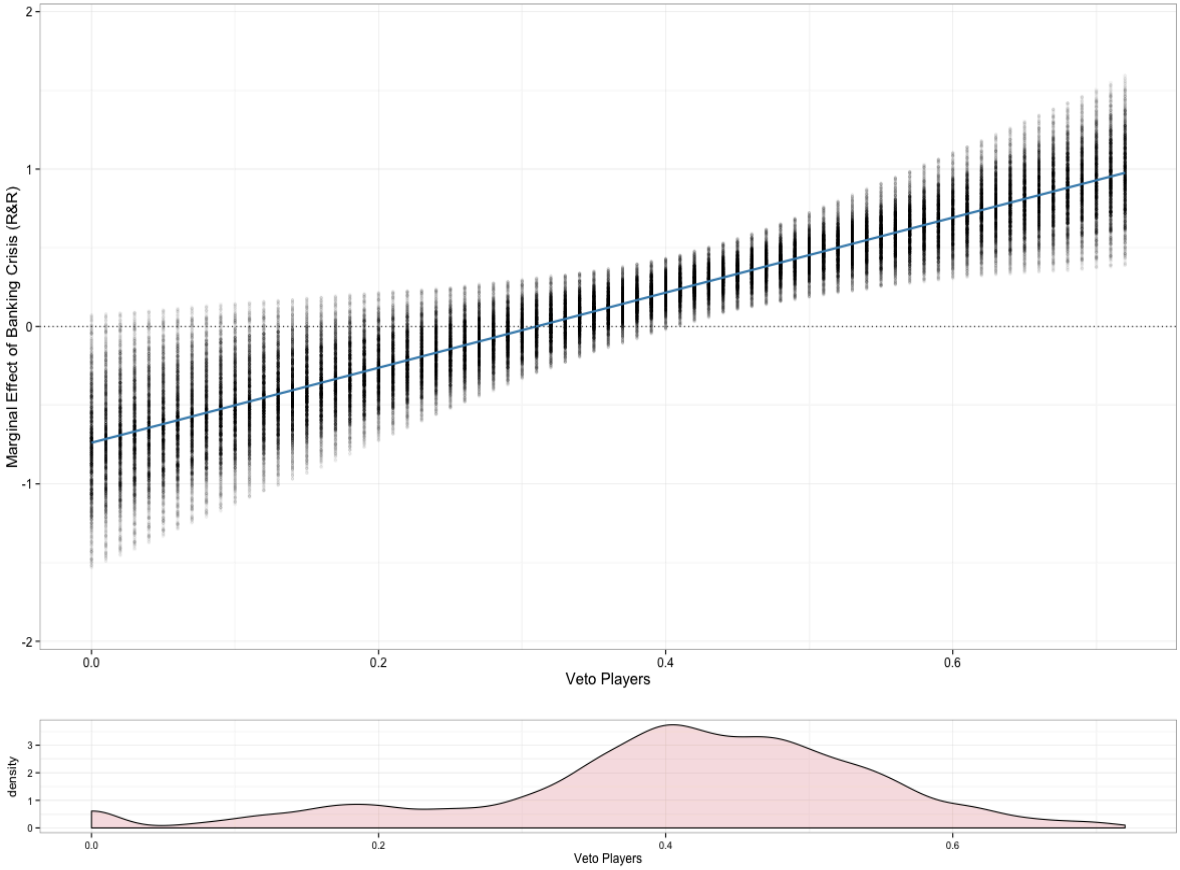
Figure 2, which uses the results from Model 1, shows that banking crises have a substantive and statistically significant effect on the likelihood of partisan spell termination for high values of Veto Players. The histogram shows that there are a sizeable number of observations that fall in the range of statistical significance. The Appendix reports similar figures when we use Model 2. Thus, the effect of banking crises on partisan spell termination is conditional on the veto player environment.

Table 1. *Banking Crises and Partisan Spell Termination, 1831 – 2011.*

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Banking Crisis	-0.74	0.17	2.49	-0.18	-0.77	0.43 **	0.16	0.47 **
	(0.58)	(0.15)	(4.47)	(1.15)	(0.61)	(0.18)	(0.58)	(0.18)
Veto Players	-1.53 ***		-1.60		-2.23 ***		-0.68	
	(0.54)		(2.17)		(0.54)		(0.50)	
Banking Crisis * Veto Players	2.37 *		-5.49		3.09 **		0.80	
	(1.31)		(9.47)		(1.47)		(1.32)	
Democracy	0.00	-0.03	-0.08	-0.09	0.17 *	0.13	0.01	0.00
	(0.05)	(0.05)	(0.09)	(0.14)	(0.10)	(0.10)	(0.07)	(0.07)
Executive Dominance	-0.60 ***	-0.60 ***			-0.55 **	-0.55 **	-0.54 ***	-0.54 ***
	(0.19)	(0.19)			(0.24)	(0.25)	(0.16)	(0.16)
Growth	-0.02	-0.02	-0.10 ***	-0.09 ***	^ **	^ **	-0.03 **	-0.03 **
	(0.02)	(0.02)	(0.03)	(0.03)			(0.01)	(0.01)
GDP per capita (ln)	-0.29 **	-0.29 **	-5.26 ***	-5.13 ***	-0.30 *	-0.31 *	-0.10	-0.10
	(0.14)	(0.14)	(0.81)	(0.74)	(0.17)	(0.17)	(0.11)	(0.11)
Inflation (ln)					0.15 *	0.14 *	0.05	0.05
					(0.09)	(0.08)	(0.06)	(0.06)
Cumulative Crises	0.00	0.00	-0.20 **	-0.20 ***	-0.01	-0.01	-0.03	-0.03
	(0.02)	(0.02)	(0.08)	(0.07)	(0.02)	(0.02)	(0.03)	(0.03)
Veto Player Residual		-1.53 ***		-2.18		-2.18 ***		-0.64
		(0.54)		(2.29)		(0.53)		(0.50)
Banking Crisis * Veto Player Residual		2.43		1.62		2.85 *		0.51
		(1.49)		(7.22)		(1.67)		(1.39)
Events	493	493	148	148	323	323	422	422
Observations	2844	2844	689	689	1997	1997	2326	2326

Robust standard errors in parentheses: *** p < 0.01, ** p < 0.05, * p < 0.1
Splines (not shown) are included for Growth (Models 5 and 6).
Models 1 – 6 use the R&R banking crisis measure. Models 7 and 8 use the L&V banking crisis measure.

Figure 2. *Marginal Effect of Banking Crisis(R&R) on Partisan Survival Conditional on Veto Players, 1831-2010.*



Yet Figure 2 obscures as much as it reveals. Indeed, if one focussed solely on variations in the veto player environment, one would erroneously conclude that this conditional relationship was static. Our theory leads us to suspect it is not; rather, the relationship between banking crises, partisan spell termination and veto players should be conditional on time. To investigate this we subset the data into two time periods: 1831 – 1938 and 1946 – 2010.[19] We then re-estimate Models 1 and 2 across these different subsets using the R&R data, and then re-estimate the same models using the L&V data for 1970 – 2011. We then plot the simulated marginal effect by using the results from Models 3, 6, and 9.

Figures 3, 4, and 5 provide evidence that is consistent with our argument that, in combination, veto players and societal expectations shape the propensity for voters to punish incumbent parties in the aftermath of a banking crisis. Figure 3 shows that in the pre-war era that banking crises have a *negative*, though insignificant, effect on partisan spell termination for high values of Veto Players. Indeed, for this era we find no evidence that voters punish incumbents for banking crises. Crises appear not to be very salient for voters during this time, consistent with the prevailing "lower expectations."[20]

[19] Our findings are unchanged if we exclude the early-postwar period (1946-1973) in which banking crises were virtually absent. While our findings are unchanged when we do include it, we exclude Executive dominance from the pre-war period since the United States is only democratic executive-dominated system in our sample.

[20] This result is unlikely to be due to restrictions on suffrage. Restrictions on male suffrage were present for a short time period in only four of the 17 countries in our pre-war sample: the United States (1832 – 1859), the UK (1880 – 1917), Belgium (1853 – 1892), and Canada (1888 – 1899).

Figure 3. *Marginal Effect of Banking Crisis (R&R) on Partisan Survival Conditional on Veto Players, 1831-1938.*

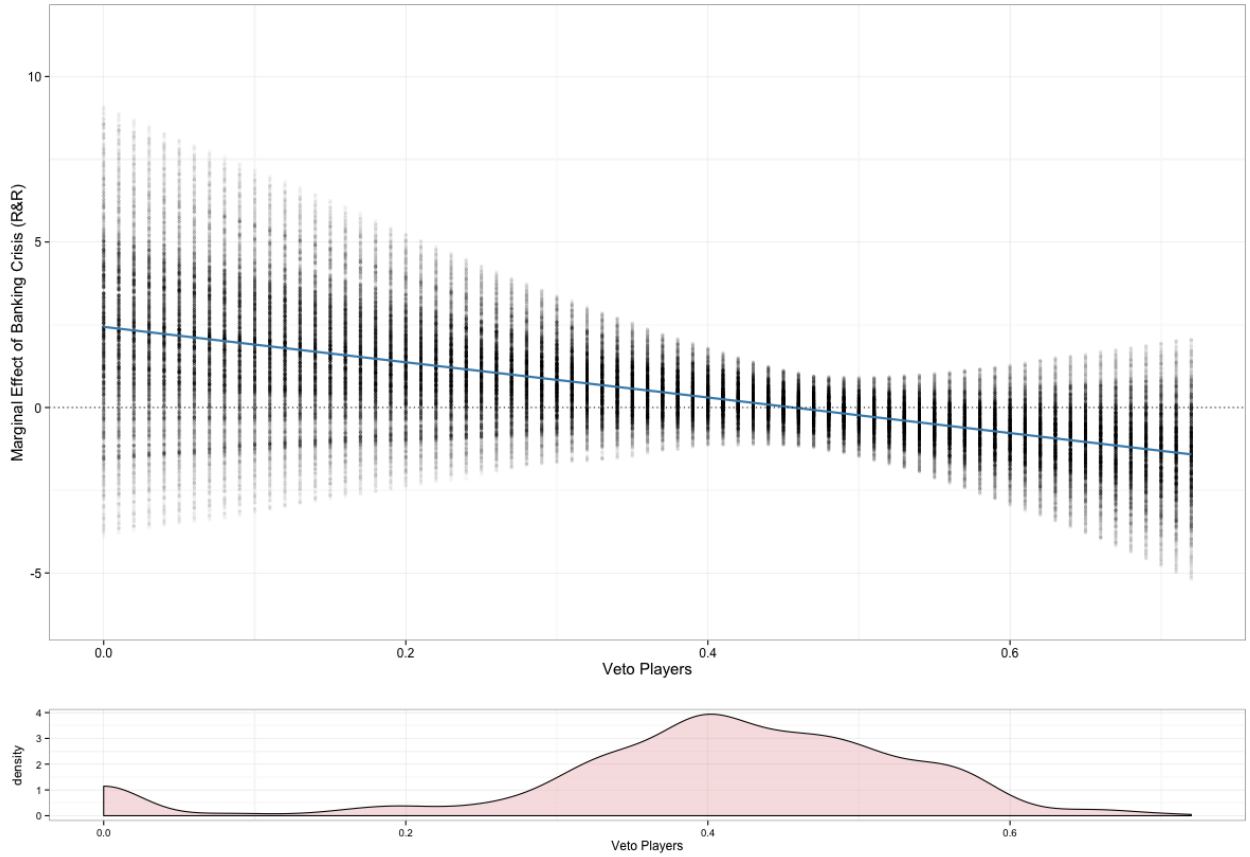


Figure 4. *Marginal Effect of Banking Crisis(R&R) on Partisan Survival Conditional on Veto Players, 1946 - 2010.*

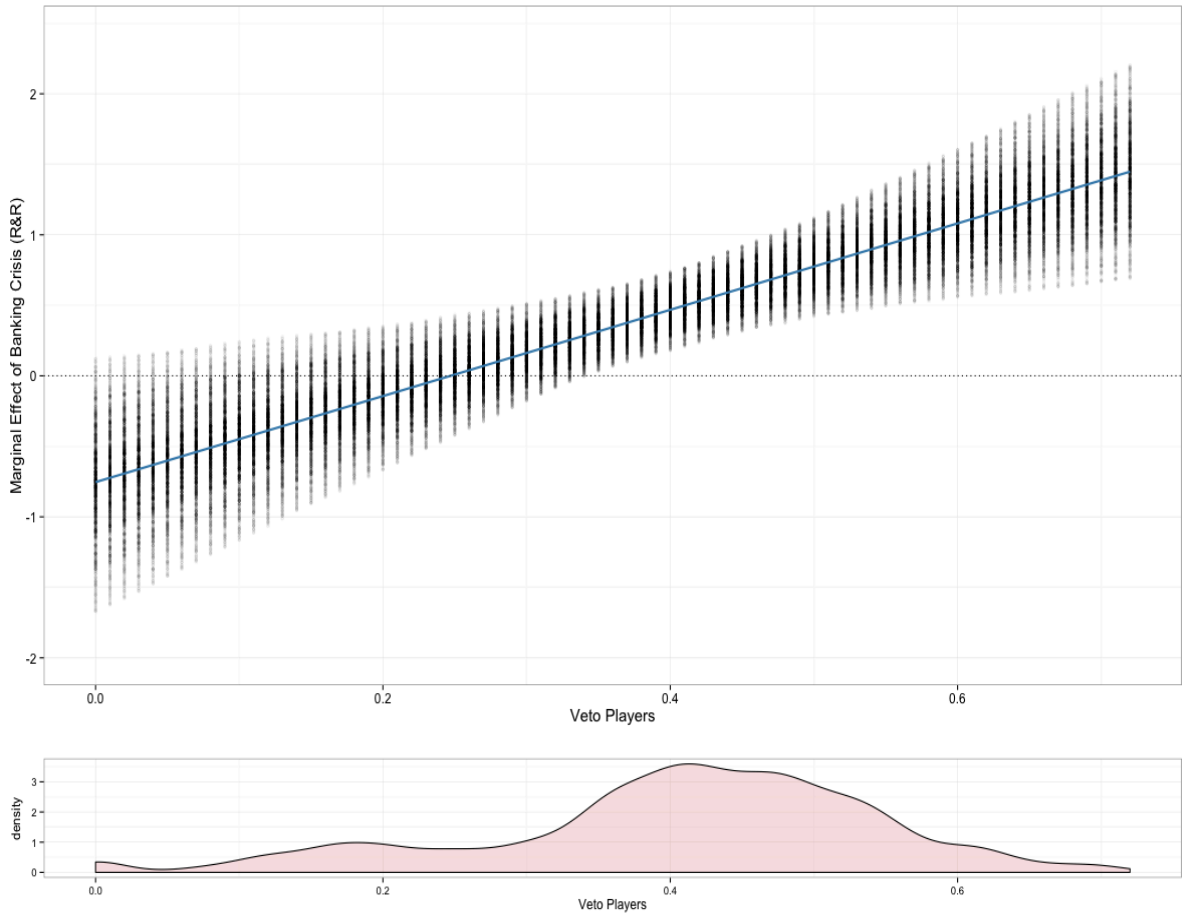
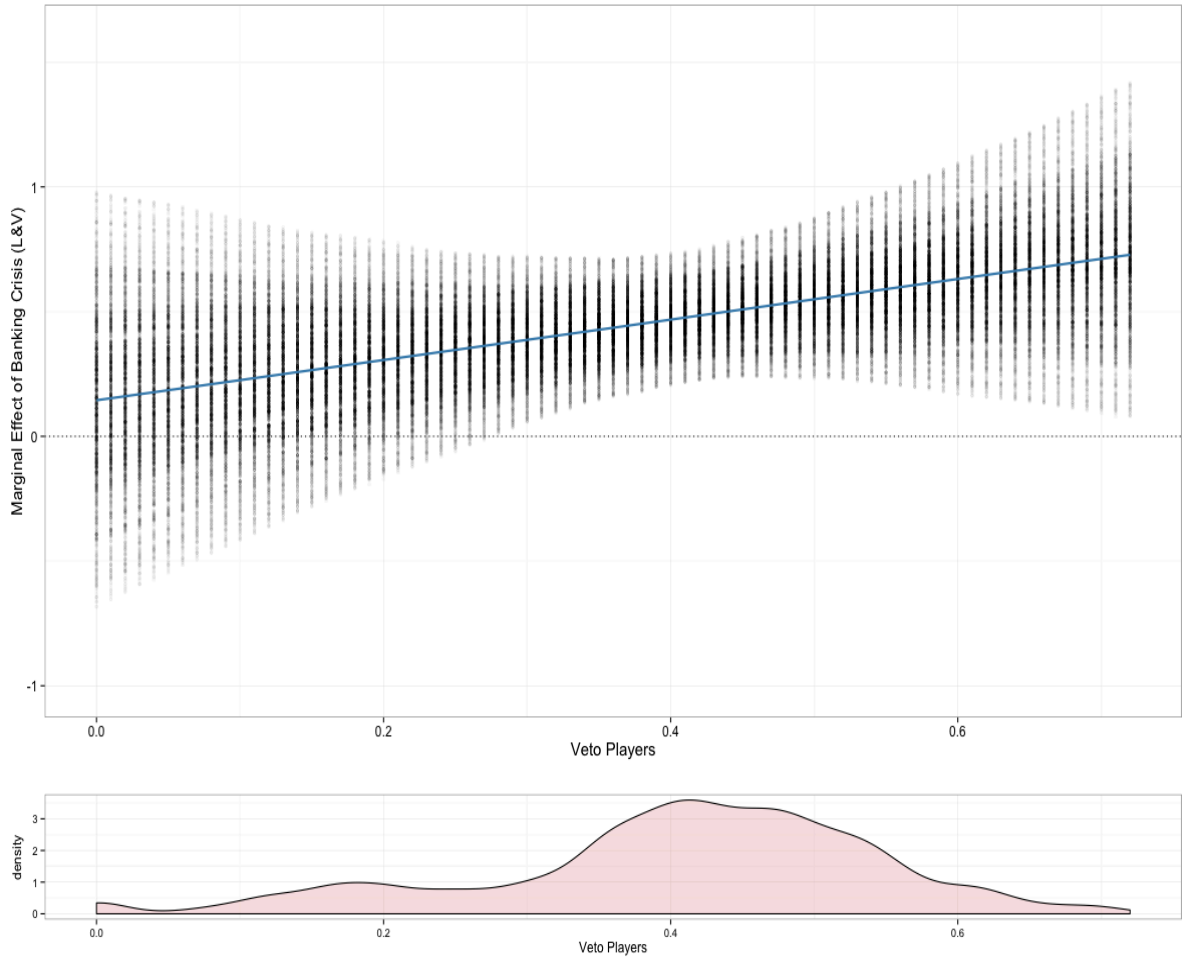


Figure 5. *Marginal Effect of Banking Crisis (L&V) on Partisan Survival Conditional on Veto Players, 1970 - 2011.*



We also considered the 1919 – 1938 period alone, but our model specifications in Table 1 would not converge due to the reduction in observations (294) and partisan spell terminations (78). The results obtained by excluding some variables suggest that there is a weak but insignificant positive conditional relationship between crises and Veto Players (or its residual) in the interwar period. This leads us to conclude that the interwar period is a transitional era, and that the main expectational shift occurs after 1945.

Figures 4 and 5 show the conditional relationship between crises and veto players in the postwar era to be *positive* and significant when we use both the R&R and L&V data. The Appendix reports similar figures when we use other models from Table 1. Risk ratios, which compare the estimated hazard rate of governments experiencing a crisis against the hazard rate of governments that do not experience a crisis ("tranquil"), also provide a sense of the magnitude of the effect plotted in Figures 4 and 5. When comparing two post-war governments in a "high" veto player environment, the one experiencing a banking crisis (according to the R&R measure) is 2.9 [1.41, 6.19] times more likely to suffer a partisan spell termination than a government in a tranquil environment, and 1.8 [1.04, 3.36] times more likely using the L&V measure (95% confidence intervals in brackets).[21] However, we find no significantly elevated termination risk when a crisis hits governments in "low" veto player environments. This result is consistent with our argument that after the Great Depression, increasingly demanding voters punish incumbent governments suffering from policy gridlock in the wake of crises. A Chow test to investigate the structural stability of the veto player

[21] "High" and "low" values of the veto players variable correspond to the 95th and 5th percentiles in the sample (all other covariates are held constant at their mean).

coefficient across time periods shows the test statistic to be significant, which is consistent with this argument.[22]

It is worth noting that voters do appear consistently responsive to growth performance before and after the structural break: banking crises may have relatively low political salience before the mid-twentieth century, but voters did respond negatively to growth downturns. Table 1 reports a negative and significant coefficient for the effect of growth in the pre-war era, while a plot of the spline fit reveals a convex relationship in the post-war era with the range of statistical significance limited to stronger growth. This result is consistent with earlier work on pre-World War II voting behavior in the United States (Alesina and Rosenthal 1995; Lin 1999; Lynch 1999) and with arguments that recessions can produce widespread disaffection even if voters lack modern policy understandings and expectations (Achen and Bartels 2004). It could be that banking crises raise the likelihood of loss of office for political incumbents during the pre-war period because they act as recession accelerators. However, we remain sceptical of this possibility because we find crises are still unrelated to incumbent survival when growth is excluded from the model (see Appendix).

We also find some evidence that wealthier countries tend to experience a lower risk of partisan spell termination in both time periods. When we use the R&R measure, there is evidence that inflation heightens the risk of partisan spell termination in the post-war period. Some institutional features, such as executive dominance, prolong the length of a partisan spell, suggesting presidential and semi-presidential systems may have some incumbency advantages relative to parliamentary systems. The coefficients in Table 1 also suggest that voters are *less* likely during the pre-1945 period to punish incumbents as the cumulative

[22] The test statistics are $\chi2\ (6)= 17.65$ ($p<.01$) using Veto Players and $\chi2\ (6) = 18.02$ ($p<.01$) using Veto Players residuals.

number of crisis-years rises. Although it seems implausible that voters would reward incumbents for serial crises, it underlines the point that banking crises by themselves do not reduce the survival prospects of governments before 1945.

Endogenous Selection in Banking Crises

It could be argued that our estimates are biased because they fail to adjust for the endogenous selection of governments into banking crises. Chief executives could potentially influence the economy or regulate the financial system in ways that induce or forestall a banking crisis, or some political systems may encourage financial instability. Economic and political conditions, such as growth and democracy, may make countries more prone to banking crises.

Even if our results are unbiased, they are probably heavily dependent on modelling assumptions. If regimes that suffer banking crises differ systematically on observed covariates from those that do not, then this introduces problems of covariate balance and covariate overlap. We find imbalance to exist for three covariates for the R&R measure in the post-war era only – growth, democracy, and inflation –and for three covariates for the L&V measure – growth, inflation, and cumulative crisis-years. Using both crisis measures we find incumbent spells that eventually experience a banking crisis start with significantly lower growth and higher inflation than crisis-free spells. In addition, we find that R&R crisis spells start with a lower degree of democracy, and L&V crisis spells start with more cumulative crisis-years.

We use entropy balancing to achieve covariate balance in our sample (Hainmueller 2012).[23] Diagnostics are provided in the Appendix. While the means are perfectly balanced between crisis and tranquil incumbent spells, some minor imbalance remains in variance and skewness. We thus include all of the control variables in our estimation.

As the weights obtained from the entropy balance estimation change across country panels, we are unable to use an elapsed time repeated events Cox model.[24] We opt for a Poisson model (which can account for repeated events) and use cubic polynomials to account for temporal dependence.[25] We provide the coefficients from the models in the Appendix.

[23] Entropy balancing has the advantage of not losing unmatched observations, which is why we opted for it over coarsened exact matching. However, entropy balancing does not solve selection on unobservables, which would necessitate instrumental variables-based (IV) estimation. We do not know of a term that satisfies the exclusion restriction of IV – that is, a covariate that strongly affects the probability of a banking crisis but that, conditional on the other regressors, does not affect incumbent survival. When the exclusion restriction is not satisfied, IV estimation will produce estimates that are both inconsistent and inefficient, and thus should be avoided.

[24] We are also unable to use a logit model since it would capture conditional gap time rather than elapsed time.

[25] While the Cox model makes no parametric assumptions about the baseline hazard, the Poisson model, which models the rate of events per observation time, is a form of a hazard model that assumes homogenous risk over time. The data do not show evidence of overdispersion, which is why we opt a Poisson model over a negative binomial model. Since the Poisson model is a log-linear model, we add a constant (one) to all observations such that the absence of an event is recoded as zero.

Table 2. *Simulated Partisan Spell Termination Rates Using Entropy Balancing.*

	R&R Crisis Measure		*L&V Crisis Measure*	
Value	*Veto Players*	*Veto Players Residual*	*Veto Players*	*Veto Players Residual*
Low	1.15 [0.95, 1.48)	1.15 [0.95, 1.54)	1.12 [0.95, 1.51]	1.12 [0.95, 1.44]
High	1.36 ** [1.07, 1.87]	1.38 ** [1.07, 1.91]	1.17 ** [1.01, 1.48]	1.19 ** [1.01, 1.50]

The quantities report the median simulated termination rate comparing crisis and tranquil countries. 95% confidence intervals are in brackets. ** indicate significance at the 95% confidence level.

Table 2 reports the simulated expected rate of partisan spell terminations per year as Veto Players takes on high and low values. The results from entropy balancing confirm that banking crises have a positive and significant effect on the likelihood of partisan spell termination for high values of Veto Players when we use either the R&R or L&V measure. For both measures we expect at least one partisan spell termination per year for governments in high veto player environments facing a crisis (1.36 for the R&R measure; 1.17 for the L&V measure). We do not find expected rates to be statistically significant for governments in low veto player environments facing a crisis. We obtain similar results when we use residualization. Overall, these results are consistent with our argument that voters inflict greatest punishment on governments experiencing crises in the context of higher institutional constraints.

Recession Accelerator or Competence Shock?

Can we be sure that banking crises have a conditional impact on incumbent survival that is distinct from their impact on the economic cycle? Isolating the treatment effect of crisis from growth is challenging since growth is both a confounding and a post-treatment variable. To deal with this, we exclude crisis-years with output losses and create new crisis measures that capture only those crisis-years that do not coincide with a recession.[26] Since 1946 there have been 172 crisis-years without a recession using the R&R measure and 129

[26] Using sensitivity analysis, we judged causal mediation - a method of decomposing causal effects (Imai, Keele, Tingley, and Yamamoto 2011) - to be insufficiently robust to warrant the strong assumptions necessary for its use.

crisis-years using the L&V measure.[27] These instances can aid in disentangling the treatment effect of crises from growth, though for reasons we outline below, some caution is warranted.

When we use these new measures, the results indicate that veto players have a similar conditional effect to that identified above (see Appendix). Figures 6 and 7 show the positive effect on the likelihood of partisan spell termination of a banking crisis remains statistically significant for high values of Veto Players for R&R and L&V crisis-years without a recession. For the R&R measure, we find governments in high veto player environments facing crises without a recession to be 4.3 [1.74, 11.60] times more likely to suffer a partisan spell termination than governments in tranquil environments. The L&V measure generates a risk ratio of 2.3 [1.09, 4.88] for the same comparison. For both crisis measures the confidence intervals for risk ratios in high and low veto player environments do not fully overlap. These risk ratios are higher than in our general results, but we are cautious about over-interpreting the magnitude of these effects since voters may also be reacting to output losses in previous years. The Appendix reports similar conditional effects when we use residualization.

This result is suggestive that the conditional effects of high vetoes on incumbent survival prospects are not only due to the (normally) recessionary impact of banking crises; modern voters also inflict political punishment for other reasons. Our interpretation is that in an era of great expectations the onset of banking crises will generally erode the reputation of incumbent governments for economic competence, but that incumbents will find it particularly difficult to retain office when high vetoes mean that they cannot take decisive crisis mitigation actions that might help to restore their competency reputations.[28] In short, in

[27] See also Bordo, Eichengreen, Klingebiel, Martinez-Peria, and Rose (2001, 60), who find that no recession accompanied about a quarter of crises since 1973.

[28] For an alternative view, see Keefer 2007.

Figure 6. *Marginal Effect of Banking Crisis (R&R) without Recession on Partisan Survival Conditional on Veto Players, 1946- 2010.*

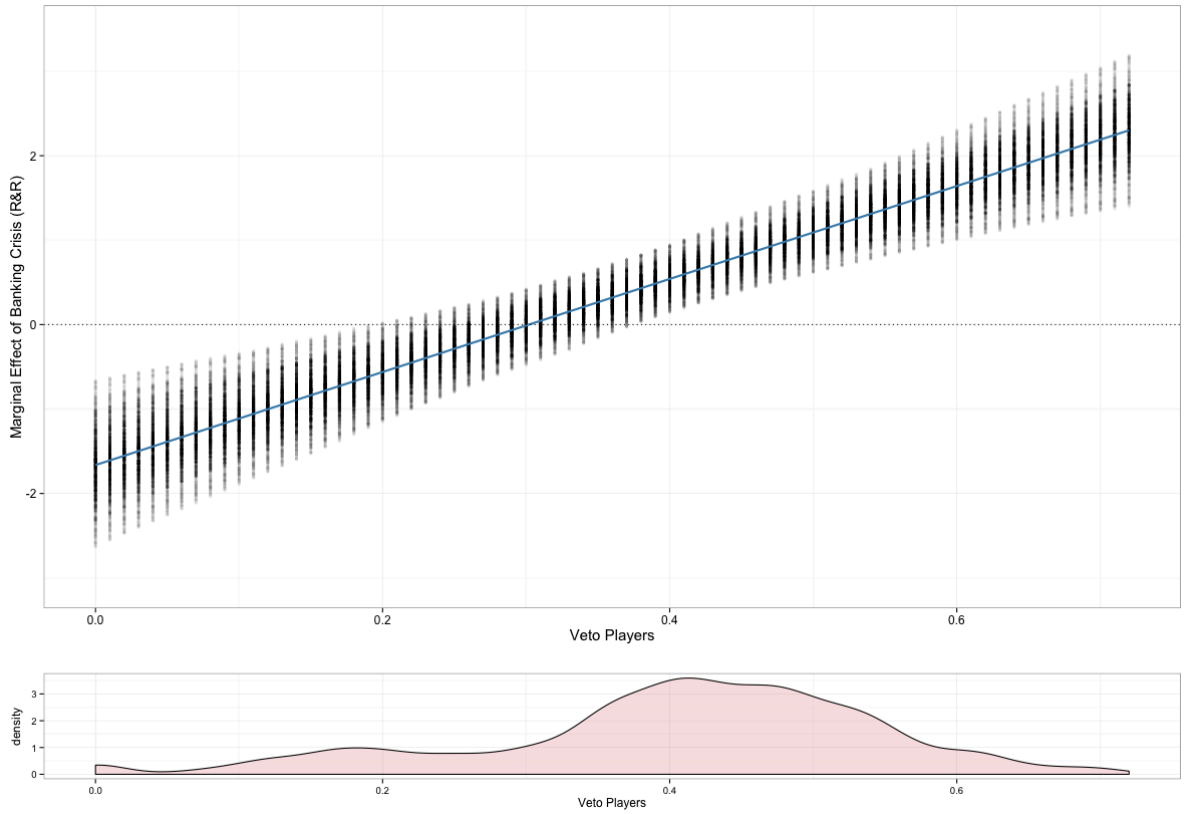
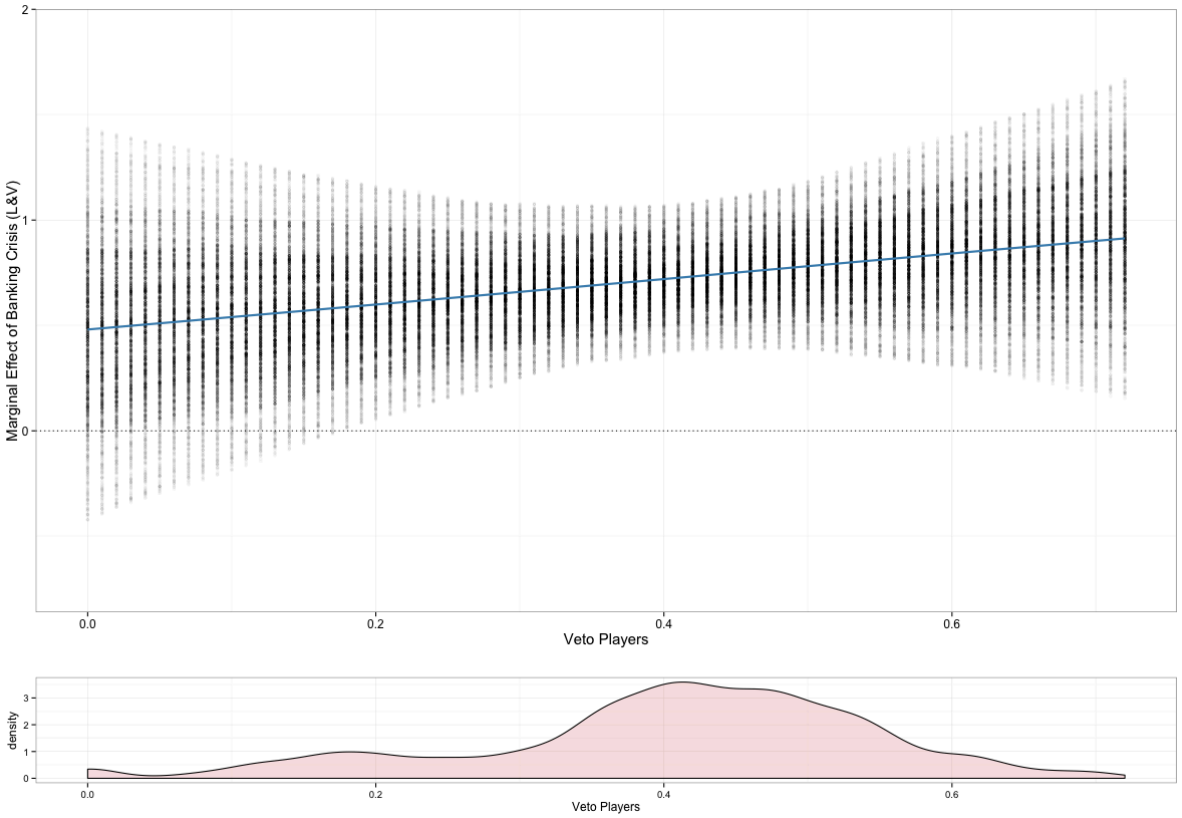


Figure 7. *Marginal Effect of Banking Crisis (L&V) without Recession on Partisan Survival Conditional on Veto Players, 1970 - 2011.*



a world of great expectations, governments are expected both to prevent and to mitigate financial shocks; voters' judgments about competency take both into account.

IMPLICATIONS

We have provided a range of evidence supporting our claim that there is a structural break in the mid-twentieth century in the relationship between banking crises and the survival prospects of incumbent governments. We have shown that contrary to the claims of the blind retrospection school and its critics, banking crises in the pre-1945 era (in contrast to economic recessions) were not associated with increased partisan turnover, either generally or in particular institutional contexts. Despite their considerable frequency and virulence in this period, such crises had much less salience for voters than is often assumed.

This can be illustrated by the banking crises that affected the United States and Canada in 1907, where incumbent political parties had been in power for nearly a decade. Government policy responses in both countries were very limited by post-1945 standards, including in the United States where the crisis was most virulent.[29] Sharp recessions ensued in 1908, when GDP fell by 4.7% in Canada and by 8.2% in the United States. Despite this, neither incumbent political party lost power in the 1908 elections held in both countries. In the United States, the Republicans retained power until the 1912 election. In Canada, the incumbent Liberals retained office until October 1911.

All this changed after 1945 because, we have argued, voters in many countries became increasingly demanding of governments as regards economic and financial

[29] The United States had no central bank at this time and the private sector, led by J. Pierpont Morgan, undertook modest stabilization (Bruner and Carr 2007). The private sector led a similar effort in Canada (Conant 1927: 469-471).

stabilization. The consequence has been that although the diffusion of macroeconomic and financial stabilization policy techniques and tools meant that after the interwar period the onset of financial crises became somewhat less likely and more easily mitigated, rising societal expectations regarding crisis prevention and management eroded the political benefits for incumbent governments. Paradoxically, rising societal expectations regarding crisis prevention, management and mitigation have meant that political incumbents are now much more vulnerable than in the past, particularly when institutional constraints are present.

A high number of veto players need not prevent policy action, but it often does lead governments to act differently than they would have in a low veto-player environment. The contrasting responses and electoral fates of incumbent centre-right parties in the United States and Sweden following the recent financial crisis are illustrative. Bermeo and Pontusson conclude that whereas in the United States elite polarization and supermajoritarian features of the political system "profoundly shaped (and *hampered*)" the policy response after January 2008, in Sweden "elite consensus facilitated a swift and effective crisis response" (Bermeo and Pontusson 2012, 15, emphasis added). The Republicans were heavily defeated in the 2008 presidential elections, but for the first time in a century Swedish voters in 2010 returned to power a centre-right government that had served a full term.

The comparison between the political impact of the 2007-8 crisis and that of a century earlier is consistent with our general findings that in the modern era the number of veto players is important even when we account for executive dominance, and that banking crises are politically consequential not just because they are recession accelerators. In an era of great expectations, crises are most likely to induce punishment when incumbents' diminished reputations for economic competence are further undermined by a perceived inability to take measures consistent with economic stabilization.

Our panoramic approach has the advantage of revealing the crucial importance of time-dependent processes, including the impact of policy learning both by elites and, just as importantly, by society at large. It also allows us to assess the comparative institutional claims found in the existing literature in a wider context. We have shown that the clarity of responsibility effect is less important than is often supposed and that modern voters appear more responsive to institutional constraints placed on the chief executive's ability to initiate policy after a crisis.

The main theoretical implication of our findings is that partisan survival in the face of financial crises is not only affected by the institutional and material factors that have received most attention in the literature. As we have shown, unless longer-term processes are taken into account, notably changing societal expectations regarding the policy responsibilities of government, we risk missing the bigger picture. From a panoramic perspective, we can see that the sharp rise in societal expectations after the experience of the Great Depression was a precondition for institutional factors that shape the ability of governments to respond to crises to become important. So, too, it is the combination of rising societal understanding of and expectations regarding government policy with rising average material stakes in economic and financial stabilization that triggers a pressing concern for voters: that governments respond effectively when financial crises occur to mitigate their consequences for incomes, employment and wealth. Governments that fail to do so, and who thus risk repeating the catastrophic socio-economic outcomes of the interwar period, are the most likely of all to suffer punishment. In short, it is only through a more dynamic, long run perspective that the full significance of institutional and changing material factors can be properly appreciated. This points to the need to investigate the impact of changing expectations of government in many other areas of interest to political scientists.

If rising societal expectations of government economic policy responsibilities are as important as we have argued, do they represent an "iron cage" for incumbent governments in the modern era? Politicians may respond by attempting to deflect blame to others and by trying to reshape and lower societal expectations about the possibilities of government stabilization measures. As regards blame deflection, Tulis argues that since the beginning of the twentieth century, US presidents have often been able to deflect blame by appealing directly to the people over the heads of Congress (Tulis 1987). Some governments in Europe since 2008 tried, often unsuccessfully, to deflect blame to bankers and to external actors demanding austerity in return for loans. However, our results do not support the view that executive dominance alone means that governments can more easily deflect blame for such crises; neither does Tulis' argument hold for the US Republican Party in 2008.

It would seem to be an even taller order for governments to escape the consequences of rising societal expectations by trying to talk them down. Before 2008, successive governments over three decades in Britain and the United States sought both to limit the actual extent of state intervention in the market (especially in financial markets) and to lower expectations about government stabilization capacities. When the crisis hit, however, incumbent policymakers – albeit reluctantly – reverted to post-war type by intervening at great expense to stabilize the financial system and the real economy. To be sure, rescuing banks was often deeply unpopular, but political and policy elites felt they had little choice if they were to salvage their damaged reputations by preventing even worse economic consequences. Great expectations mean that incumbent governments are often caught on the horns of an acute political dilemma: almost certainly damned if they don't intervene, and often damned when they do.

This suggests that great expectations are deeply engrained in modern polities and that there is limited space for political leaders to shape the interpretation and activation of

collectively shared beliefs and expectations in the post-1945 era.[30] Nevertheless, further research is needed to investigate the counterfactual of whether rates of partisan turnover after banking crises would have risen even more sharply after 1945 without the rise of neoliberalism in recent decades. Absent this, it would be claiming too much to describe rising societal expectations of government as an iron cage, but our argument implies that in combination with particular political institutions they have had powerful consequences. Further research is also needed to ascertain why great expectations seem to have been so "sticky". This may be because they are strongly reinforced by material interest: as the stock of financial, housing and human capital assets possessed by the middle classes has risen in many countries over the course of the 20th century, so too has voters' stake in stabilization policies and insurance mechanisms (Ansell 2008). Ultimately, our findings suggest that incumbents in political systems that fail to respond to the mass public impulses arising from these expectations may suffer from a legitimacy gap that deprives them of office (Seabrooke 2007).

[30] On the sources of such agency, see Lupia and McCubbins 1998; Popkin 1994. On its potential to shape potential policy narratives and to mobilize political coalitions, see Blyth 2002 and Mahoney and Thelen 2010.

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Supporting Information: Great Expectations, Veto Players, and the Changing Politics of Banking Crises

Sample

Table A.1. *R &R Crisis Measure Sample*

Argentina	Mauritius
Australia	Mexico
Austria	*Netherlands*
Belgium	Nicaragua
Bolivia	Nigeria
Brazil	*Norway*
Canada	Panama
Chile	Paraguay
Colombia	Peru
Denmark	Philippines
Dominican Republic	Poland
Ecuador	Portugal
El Salvador	Romania
Finland	Russian Federation
France	South Africa
Germany	South Korea
Ghana	*Spain*
Greece	Sri Lanka
Guatemala	*Sweden*
Honduras	*Switzerland*
Hungary	Taiwan
India	Thailand
Indonesia	Turkey
Ireland	*United Kingdom*
Italy	*United States*
Japan	Uruguay
Kenya	Venezuela
Malaysia	Zambia

Italicized countries have at least one incumbent spell in the pre-war sample (1831 – 1938).

Table A.2. *L & V Crisis Measure Sample*

Albania	Ghana	New Zealand
Argentina	Greece	Niger
Armenia	Guatemala	Nigeria
Australia	Guinea-Bissau	Norway
Austria	Honduras	Pakistan
Bangladesh	Hungary	Panama
Belarus	India	Paraguay
Belgium	Indonesia	Peru
Benin	Ireland	Philippines
Bolivia	Israel	Poland
Botswana	Italy	Portugal
Brazil	Jamaica	Romania
Bulgaria	Japan	Russian Federation
Burundi	Kenya	Senegal
Canada	Kyrgyzstan	Sierra Leone
Cape Verde	Latvia	Slovakia
Chile	Lebanon	Slovenia
Colombia	Lesotho	South Africa
Comoros	Liberia	South Korea
Costa Rica	Lithuania	Spain
Croatia	Luxembourg	Sri Lanka
Cyprus	Macedonia	Sudan
Czech Republic	Madagascar	Sweden
Denmark	Malawi	Switzerland
Dominican Republic	Malaysia	Thailand
Ecuador	Mali	Trinidad and Tobago
El Salvador	Mauritius	Turkey
Estonia	Mexico	Ukraine
Fiji	Moldova	United Kingdom
Finland	Mongolia	United States
France	Montenegro	Uruguay
Gambia	Nepal	Venezuela
Georgia	Netherlands	Zambia
Germany		

Summary Statistics

Table A.3 provides the summary statistics for all variables used the analysis.

Table A.3. *Summary Statistics*.

R&R Crisis Measure Sample

Variable	**N**	**Mean**	**Std Dev**	**Min**	**Max**
Partisan Spell	2844	7.69	14.566	0	111
Banking Crisis (R&R)	2844	0.112	0.316	0	1
Veto Players	2844	0.428	0.122	0	0.72
Democracy	2844	9.051	1.303	6	10
Executive Dominance	2844	0.232	0.422	0	1
Growth	2844	3.409	4.765	-22.28	68.83
GDP per capita (ln)	2844	8.732	0.823	6.400	10.362
Inflation (ln)	2415	1.704	1.376	-2.302	26.077
Cumulative crises	2844	8.251	5.912	0	30

L&V Crisis Measure Sample

Variable	**N**	**Mean**	**Std Dev**	**Min**	**Max**
Partisan Spell	2326	6.064	12.20	0	111
Banking Crisis (L&V)	2326	0.088	0.283	0	1
Veto Players	2326	0.404	0.138	0	0.72
Democracy	2326	8.808	1.365	6	10
Executive Dominance	2326	0.254	0.435	0	1
Growth	2326	3.464	3.854	-32.11	20.27
GDP per capita (ln)	2326	9.052	1.151	5.592	11.048
Inflation (ln)	2326	1.873	1.257	-3.206	9.371
Cumulative crises	2326	1.479	2.231	0	10

Partisan Spell Coding and Data Sources

We identify the chief executive by cross-checking information from Archigos and rulers.org, a website that lists heads of state and government since the early 18th century.[31] In systems with both a prime minister and a president or monarch, we identify the chief executive by using the coding rules provided in the Database of Political Institutions. These rules code a system as presidential if the president can veto legislation and the parliament needs a supermajority to override the veto, or if the president can appoint and dismiss the prime minister and dissolve parliament and call for new elections. We adapt this scheme to identify the chief executive in settings where a monarch is present, using information provided in the Comparative Constitutions Project, a cross-national historical dataset of written constitutions (Elkins, Ginsburg, and Melton 2012).[32]

To identify partisan affiliation and voting systems we use information from a number of sources.[33] The measurement of partisan spells is often fairly straightforward for both parliamentary and democratic executive-dominated systems. However, in parliamentary systems we code partisan spells as ending when the composition of governing coalitions changes even if the chief executive remains unchanged, such as Britain in 1931 and West Germany in 1966.

[31] Left-censoring does not compromise our analysis since these sources contain information about partisan survival prior to 1831 that we include in our partisan spell indicator.

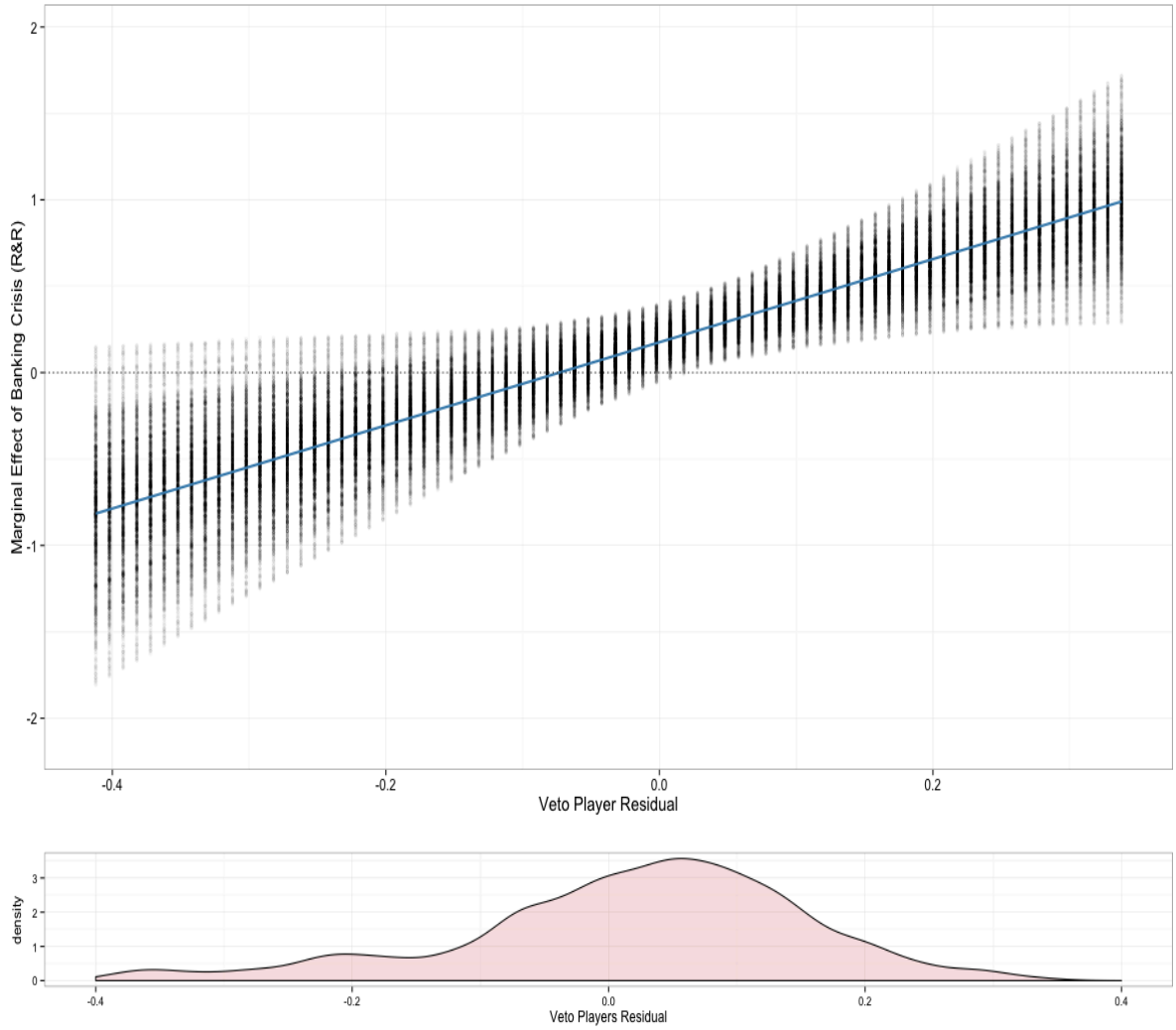
[32] In cases where there was uncertainty or no clear institutional framework, we also cross-checked our coding by consulting with country experts.

[33] Beck, Clarke, Groff, Keefer and Walsh 2001; Elkins, Ginsburg, and Melton 2012; Mackie and Rose 1990, Nohlen 2005, Nohlen, Gotz, and Hartmann 2001, and Vanhanen 2000.

Veto Player Residuals

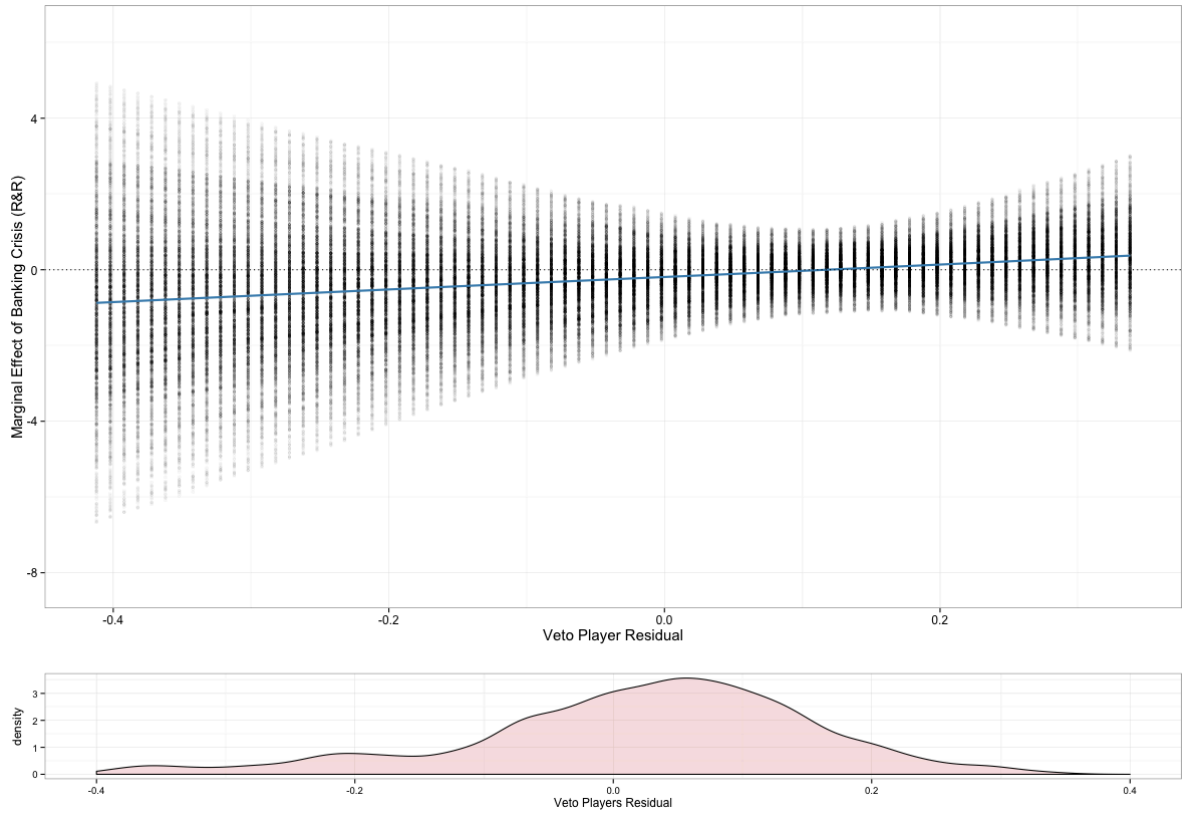
Figures A.1 – A.4 use the coefficients from Models 2, 4, 6, and 8 of Table 1 in the main text to show the marginal effect of banking crisis on partisan survival conditional on veto players residuals.

Figure A.1. *Marginal Effect of Banking Crisis on Partisan Survival Conditional on Veto Players Residuals, 1831- 2010.*



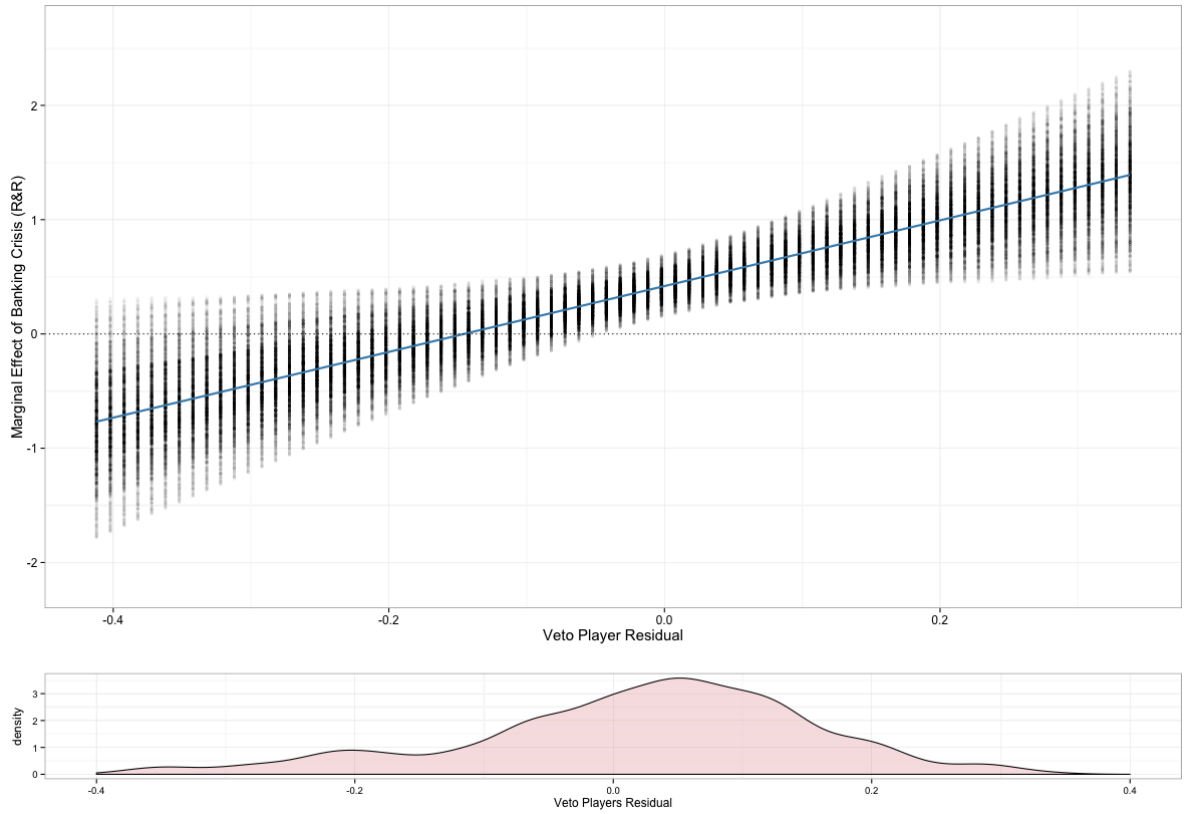
The median line summarizes the central tendency from the simulations. The ribbon represents the middle 95% of 1,000 simulations. The density of the ribbon represents the set of values with the highest probability.

Figure A.2. *Marginal Effect of Banking Crisis on Partisan Survival Conditional on Veto Players Residuals, 1831- 1938.*



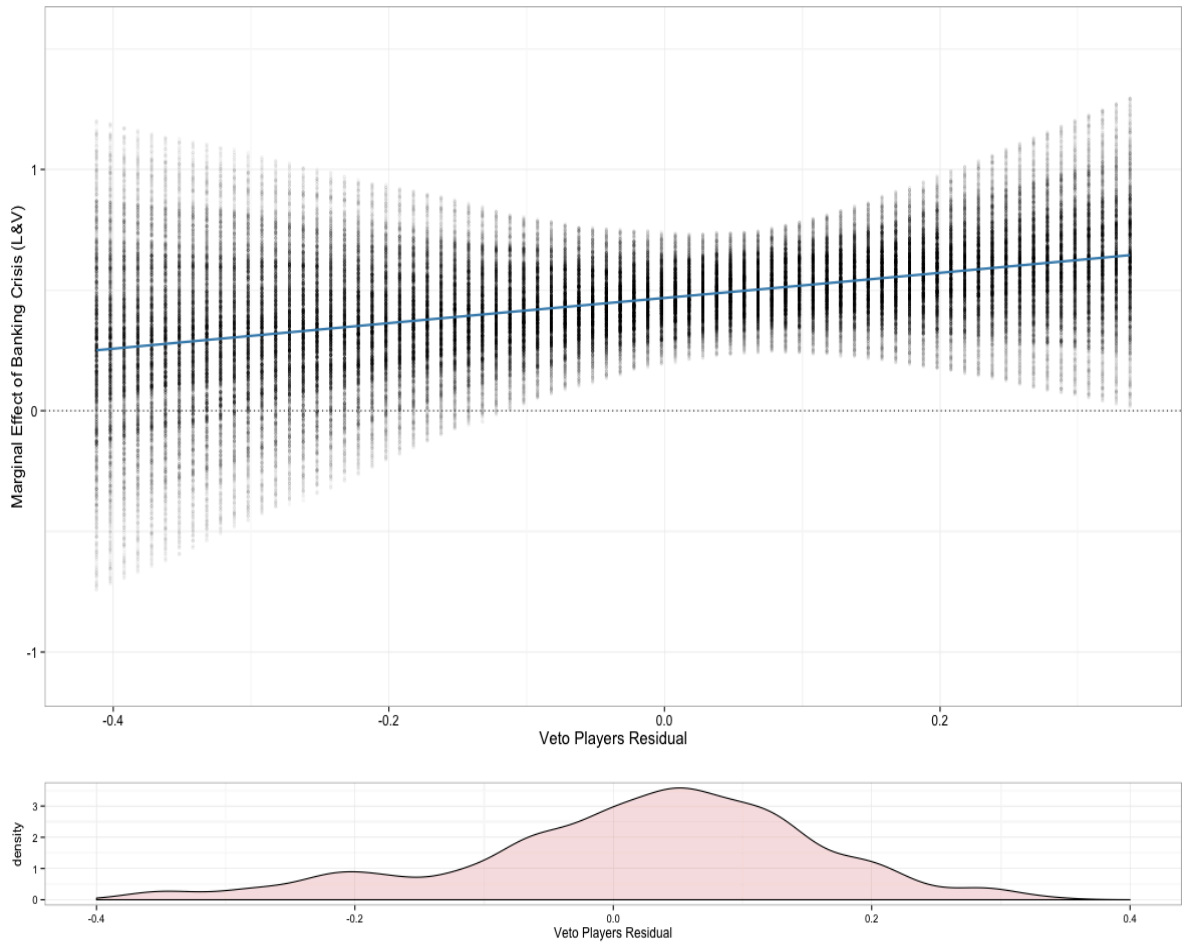
The median line summarizes the central tendency from the simulations. The ribbon represents the middle 95% of 1,000 simulations. The density of the ribbon represents the set of values with the highest probability.

Figure A.3. *Marginal Effect of Banking Crisis on Partisan Survival Conditional on Veto Players Residuals, 1946 - 2010.*



The median line summarizes the central tendency from the simulations. The ribbon represents the middle 95% of 1,000 simulations. The density of the ribbon represents the set of values with the highest probability.

Figure A.4. *Marginal Effect of Banking Crisis on Partisan Survival Conditional on Veto Players Residuals, 1970 - 2011.*



The median line summarizes the central tendency from the simulations. The ribbon represents the middle 95% of 1,000 simulations. The density of the ribbon represents the set of values with the highest probability.

Entropy Balancing

As noted in the main text, we find imbalance to exist for three covariates – growth, democracy, and inflation, for the R&R measure in the post-war era only and three covariates – growth, inflation, and cumulative crisis-years – for the L&V measure. The values for crisis versus tranquil spells are as follows: (1) Growth: 1.23 and 4.27 percent ($p<.01$) using R&R, and 0.54 percent and 3.29 percent ($p<.01$) using L&V; (2) Democracy: 8.69 and 9.08 using R&R ($p<.05$); (3) Inflation: 2.56 and 1.93 percent ($p<.01$) using R&R, and 2.67 percent and 1.95 percent ($p<.05$) using L&V; and (4) Cumulative crisis-years: 2.61 and 1.35 using L&V ($p<.01$). We do not consider information across all years in the spell since this would include values that change partly as a result of a crisis. We use entropy balancing since it has been shown to outperform other data pre-processing procedures, while also requiring fewer assumptions and possessing more attractive statistical properties (Hainmueller 2012).

Table A.4 provides summary statistics of the balance between the "treated" (banking crisis) and "control" (tranquil) units in the pre-weighted data set, and then in the post-weighted data set. The reduction of the imbalance between treatment and control units is substantively large. Since the difference in means for all covariates is essentially eliminated in the weighted data set, we conclude that the balancing procedure produced greater covariate balance.

Table A.4. *Balance Statistics*.

Growth – Reinhart and Rogoff

Data	Treatment Mean	Treatment Variance	Treatment Skewness	Control Mean	Control Variance	Control Skewness
Pre-Weighting	1.499	16.43	-0.7833	4.024	16.66	4.228
Post-Weighting	1.499	16.43	-0.7833	1.499	25.38	-1.834

Growth – Laeven and Valencia

Data	Treatment Mean	Treatment Variance	Treatment Skewness	Control Mean	Control Variance	Control Skewness
Pre-Weighting	0.8392	19.95	-0.8064	3.711	13.54	-1.001
Post-Weighting	0.8392	19.95	-0.8064	0.8391	19.96	-1.07

Democracy – Reinhart and Rogoff

Data	Treatment Mean	Treatment Variance	Treatment Skewness	Control Mean	Control Variance	Control Skewness
Pre-Weighting	8.744	1.768	-0.6586	9.092	1.572	-1.128
Post-Weighting	8.744	1.768	-0.6586	8.744	2.045	-0.7053

Inflation – Reinhart and Rogoff

Data	Treatment Mean	Treatment Variance	Treatment Skewness	Control Mean	Control Variance	Control Skewness
Pre-Weighting	2.165	2.855	1.029	1.696	1.409	0.6812
Post-Weighting	2.165	2.855	1.029	2.165	2.045	1.022

Inflation – Laeven and Valencia

Data	Treatment Mean	Treatment Variance	Treatment Skewness	Control Mean	Control Variance	Control Skewness
Pre-Weighting	2.24	3.26	0.9002	1.85	1.398	0.6305

Post-Weighting	2.24	3.26	0.9002	2.24	3.26	1.232

Cumulative Crisis-Years – Laeven and Valencia

Data	**Treatment Mean**	**Treatment Variance**	**Treatment Skewness**	**Control Mean**	**Control Variance**	**Control Skewness**
Pre-Weighting	2.528	5.06	0.9036	1.336	4.872	1.667
Post-Weighting	2.528	5.06	0.9036	2.509	5.06	0.3498

Table A.5 provides the results in the form of coefficients for different models of incumbency survival using entropy balancing and different measures of banking crises in the post-war period.

Table A.5. *Banking Crises and Partisan Spell Termination Using Entropy Balancing, 1946 – 2011.*

	1946 - 2010		1970 - 2011	
	Model 1	Model 2	Model 3	Model 4
Banking Crisis	0.244	0.602***	0.315	0.382***
	(0.452)	(0.131)	(0.386)	(0.103)
Veto Players	-1.527**		-1.043*	
	(0.740)		(0.576)	
Banking Crisis * Veto Players	0.938		0.179	
	(1.087)		(0.937)	
Democracy	0.102	0.0774	0.0206	-0.00164
	(0.0669)	(0.0651)	(0.0590)	(0.0563)
Executive Dominance	-0.250	-0.253	-0.143	-0.142
	(0.158)	(0.157)	(0.159)	(0.159)
Growth	0.0111	0.0106	-0.0184	-0.0185
	(0.0170)	(0.0170)	(0.0147)	(0.0146)
GDP per capita (ln)	-0.118	-0.118	0.0144	0.0147
	(0.107)	(0.107)	(0.0846)	(0.0843)
Inflation (ln)	0.143**	0.142**	0.0800**	0.0796**
	(0.0574)	(0.0575)	(0.0399)	(0.0402)
Cumulative crises	-0.0153	-0.0153	0.0210	0.0211
	(0.0130)	(0.0130)	(0.0303)	(0.0304)
Years Since Previous Partisan Spell Termination	0.00634	0.00618	0.0136**	0.0136**
	(0.00400)	(0.00403)	(0.00609)	(0.00608)
Count of Previous Partisan Spell Terminations	0.00297	0.00306	0.000842	0.000833
	(0.00484)	(0.00482)	(0.00572)	(0.00572)
Veto Players Residual		-1.521**		-1.083*
		(0.750)		(0.586)
Banking Crisis * Veto Players Residual		0.903		0.240
		(1.133)		(0.960)
Constant	-1.722*	-2.084**	-2.137***	-2.344***
	(0.993)	(1.029)	(0.679)	(0.686)
Observations	1997	1997	2326	2326

Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1
Models 1 and 2 use the R&R banking crisis measure. Models 3 and 4 use the L&V banking crisis measure.

Recession Accelerator or Competency Shock?

Table A.6 provides the results in the form of coefficients for different models of incumbency survival using different measures of banking crises without a recession in the post-war period.

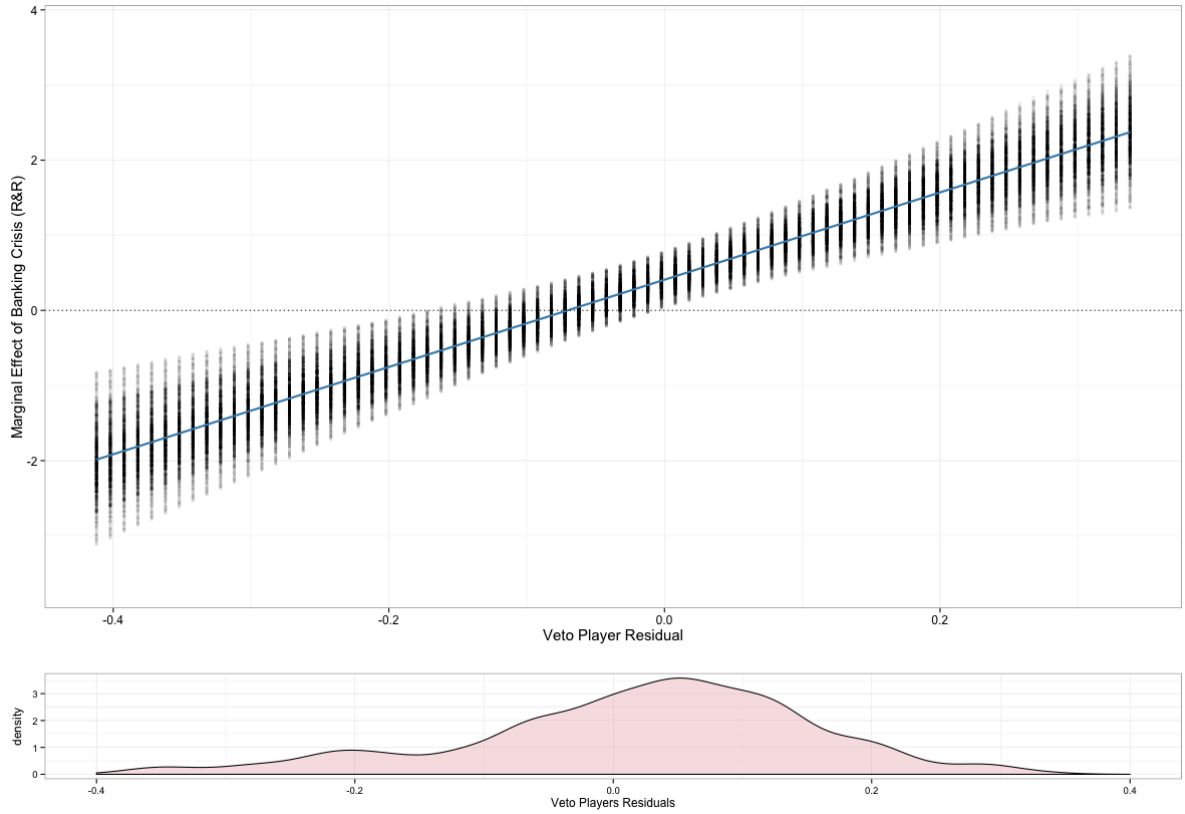
Table A.6. *Banking Crises without Recession and Partisan Spell Termination, 1946- 2011*.

	1946 – 2010		1970 – 2011	
	Model 1	Model 2	Model 3	Model 4
Banking Crisis	-1.64 **	0.42 *	0.48	0.70 ***
	(1.22)	(0.31)	(0.63)	(0.24)
Veto Players	-2.20 ***		-0.59	
	(0.53)		(0.49)	
Banking Crisis * Veto Players	5.46 ***		0.60	
	(1.55)		(1.45)	
Democracy	0.19 **	0.15 *	0.00	-0.01
	(0.09)	(0.09)	(0.07)	(0.07)
Executive Dominance	-0.68 ***	-0.68 ***	-0.56 ***	-0.56 ***
	(0.29)	(0.29)	(0.16)	(0.16)
Growth	^ **	^ **	-0.05 ***	-0.05 ***
			(0.02)	(0.02)
GDP per capita (ln)	-0.41 ***	-0.42 ***	-0.09	-0.09
	(0.16)	(0.16)	(0.11)	(0.11)
Inflation	0.23 **	0.22 **	0.07	0.07
	(0.09)	(0.10)	(0.06)	(0.06)
Cumulative Crises	-0.01	-0.01	-0.02	-0.02
	(0.02)	(0.02)	(0.03)	(0.03)
Veto Players Residual		-2.21 ***		-0.60
		(0.53)		(0.49)
Banking Crisis * Veto Players Residual		5.87 ***		0.68
		(1.89)		(1.52)
Events	304	304	401	401
Observations	1928	1928	2250	2250

Robust standard errors in parentheses: *** p < 0.01, ** p < 0.05, * p < 0.1
Splines (not shown) are included for Growth (Models 1 and 2).
Models 1 and 2 use the R&R banking crisis measure. Models 3 and 4 use the L&V banking crisis measure.

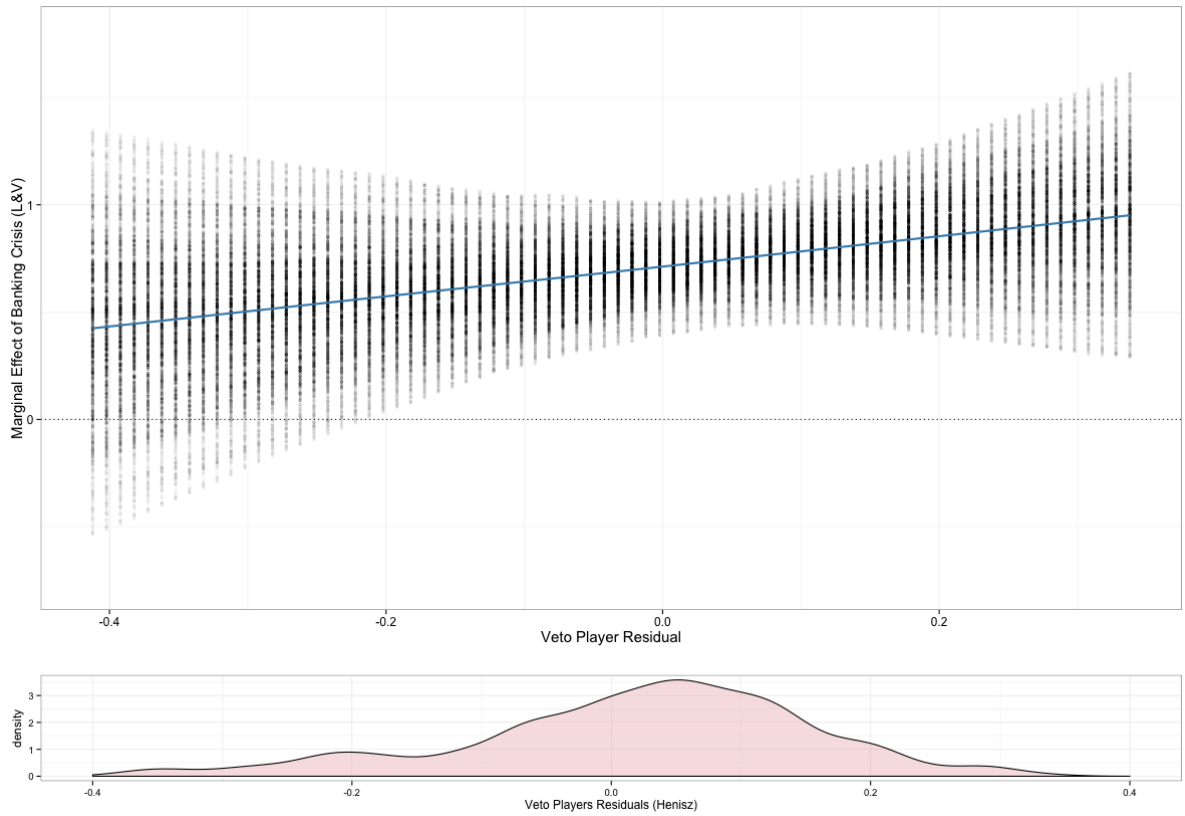
Figures A.5 and A.6 show that the positive effect on the likelihood of partisan spell termination of a banking crisis remains statistically significant for high values of veto players residuals when we consider R&R and L&V crisis-years that do not coincide with a recession. The simulated risk ratios suggest the effect is substantively significant. Using the R&R measure, we find governments in high veto player environments facing crises without a recession to be 5.13 [1.87, 13.76] times more likely to suffer a partisan spell termination than a government in a tranquil environment. The L&V measure generates a risk ratio of 2.29 [1.18, 4.78] for the same comparison. For both crisis measures the confidence intervals for risk ratios in high and low veto player environments do not fully overlap.

Figure A.5. *Marginal Effect of Banking Crisis without a Recession on Partisan Survival Conditional on Veto Players Residuals, 1946- 2010.*



The median line summarizes the central tendency from the simulations. The ribbon represents the middle 95% of 1,000 simulations. The density of the ribbon represents the set of values with the highest probability.

Figure A.6. *Marginal Effect of Banking Crisis without a Recession on Partisan Survival Conditional on Veto Players Residuals, 1970 - 2011.*



The median line summarizes the central tendency from the simulations. The ribbon represents the middle 95% of 1,000 simulations. The density of the ribbon represents the set of values with the highest probability.

Recession Accelerator in the Pre-War Era?

Table A.7 provides the results in the form of coefficients for different models of incumbency survival where growth is excluded. We find no evidence that banking crises alone or in combination with Veto Players (or its residual) has a significant influence on partisan spell termination in the pre-war era.

Table A.7. *Banking Crises and Partisan Spell Termination Excluding Growth, 1831 - 1938.*

	Model 1	Model 2	Model 3
Banking Crisis	0.0505	2.639	-0.0733
	(0.799)	(5.845)	(1.213)
Veto Players	-2.507	-2.191	
	(2.524)	(2.015)	
Banking Crisis * Veto Players		-5.533	
		(12.25)	
Democracy	-0.142	-0.174	-0.190
	(0.0887)	(0.123)	(0.164)
GDP per capita (ln)	-4.410***	-4.459***	-4.393***
	(0.581)	(0.618)	(0.607)
Cumulative crises	-0.200***	-0.200***	-0.202***
	(0.0688)	(0.0744)	(0.0721)
Veto Players Residual			-2.628
			(2.056)
Banking Crisis * Veto Players Residual			1.721
			(8.598)
Events	147	147	147
Observations	699	699	699

Robust standard errors in parentheses: *** p < 0.01, ** p < 0.05, * p < 0.1

Testing the U-Shaped Relationship

MacIntyre's (2002) argument suggests a U-shaped relationship between the number of veto players and the costs of financial crises. If MacIntyre's argument holds, then one would expect that environments with an intermediate number of constraints on the chief executive would be most conducive to incumbent survival in the aftermath of a banking crisis. As per subsequent quantitative tests of MacIntyre's hypothesis (Angkinand and Willett 2008; Hicken, Satyanath, and Sergenti 2005), we include a quadratic term of Veto Players and interact it with our banking crisis measures.

Table A.8 reports the results. The coefficient for the interaction and the quadratic term, though positive, is insignificant in all models. To assess the form of the relationship, we use Figures A.7 – A.8 to plot the hazard ratio for crisis and tranquil countries across all observed values for Veto Players. These plots fail to confirm a U-shaped relationship.[34]

[34] We uncover a similar finding when we use the residual of Veto Players.

Table A.8. *Banking Crises and Partisan Spell Termination Using Quadratic Term, 1946- 2011*.

VARIABLES	1946 -2010 Model 1	1970 - 2011 Model 2
Banking Crisis	1.451	0.818
	(1.969)	(1.729)
Veto Players	-2.167	-4.512**
	(3.156)	(2.055)
Veto Players Squared	0.809	5.648**
	(4.197)	(2.822)
Banking Crisis * Veto Players	-10.38	-5.409
	(10.72)	(8.537)
Banking Crisis * Veto Players Squared	17.45	8.259
	(14.11)	(11.26)
Democracy	0.161	0.0489
	(0.134)	(0.0721)
Executive Dominance	-0.326	-0.541**
	(0.284)	(0.218)
Growth	-0.00610	-0.0347*
	(0.0233)	(0.0200)
GDP per capita (ln)	-0.203	-2.03e-05**
	(0.216)	(1.02e-05)
Inflation (ln)	0.136	0.0131
	(0.110)	(0.0757)
Cumulative crises	-0.000825	-0.0484
	(0.0229)	(0.0406)
Events	323	422
Observations	1997	2326

Robust standard errors in parentheses: *** p < 0.01, ** p < 0.05, * p < 0.1
Models 1 uses the R&R banking crisis measure. Model 2 uses the L&V banking crisis measure.

Figure A.7. *Hazard Ratio of Banking Crisis Conditional on Veto Player and Veto Players Squared, 1946 – 2010*

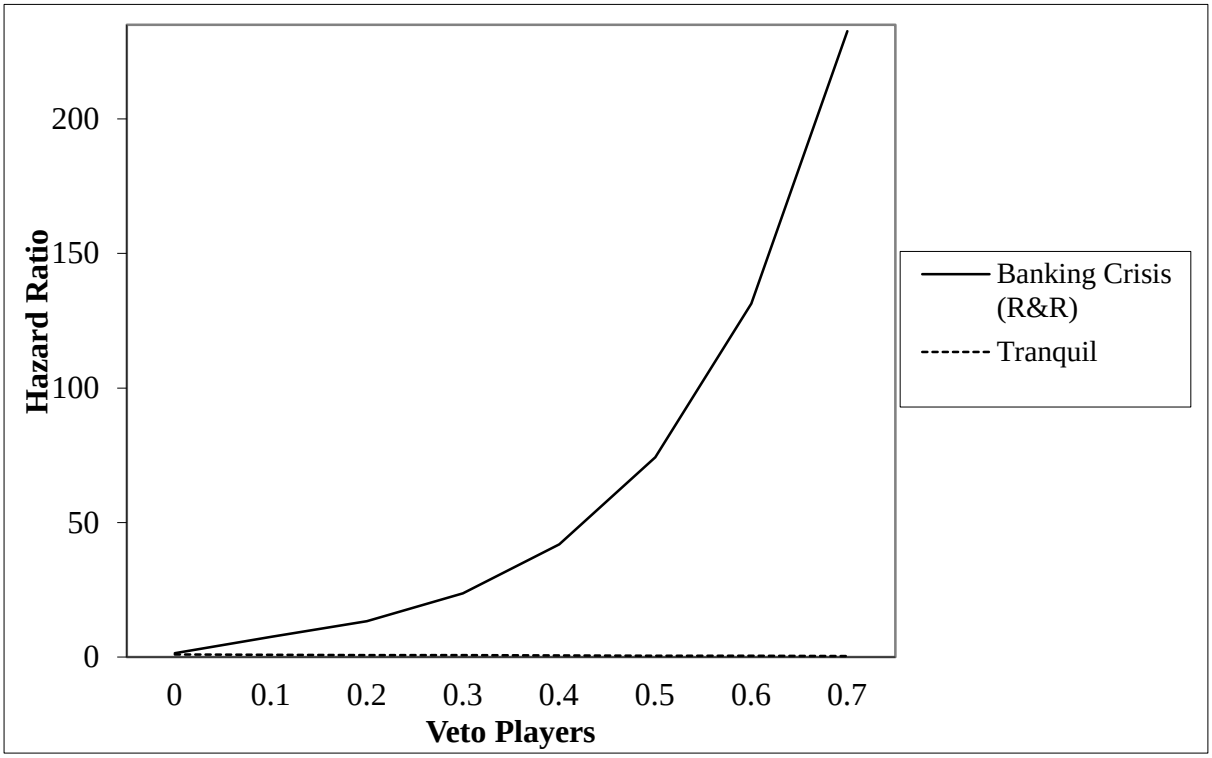
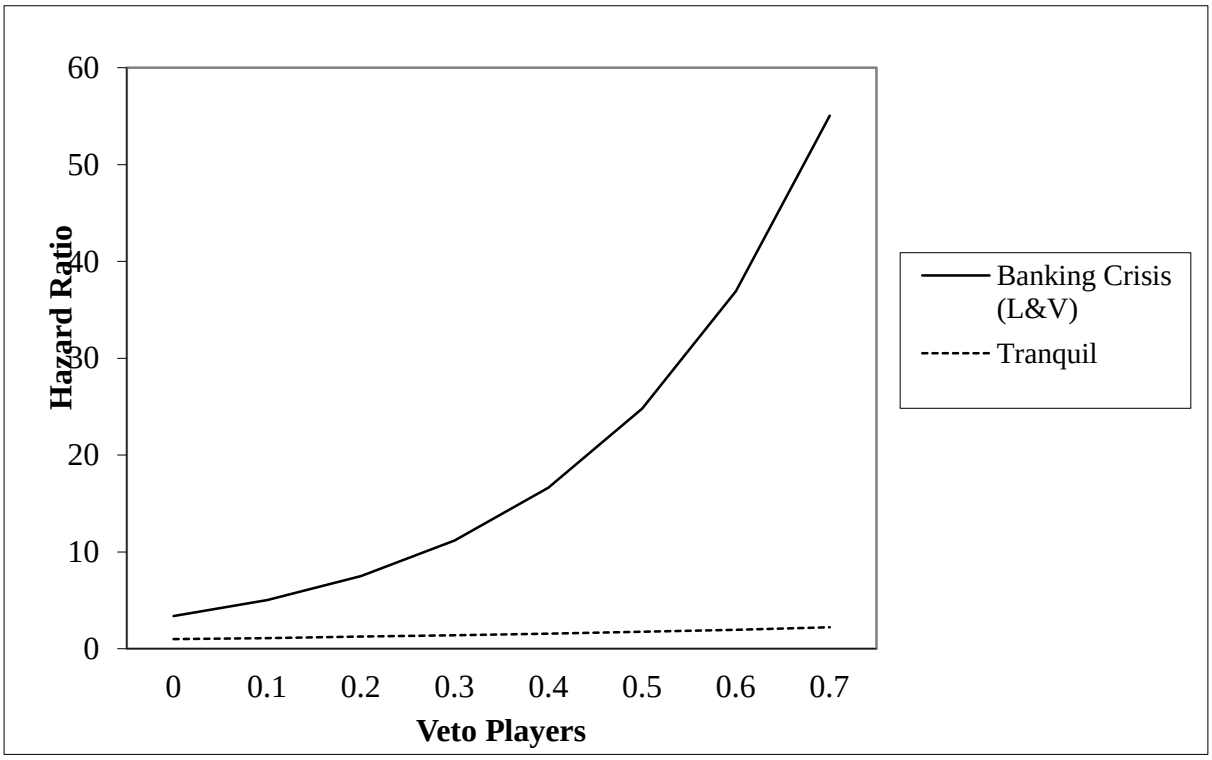


Figure A.8. *Hazard Ratio of Banking Crisis Conditional on Veto Players and Veto Players Squared, 1970 – 2011*



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