Where you should not govern in times of economic crisis: Retrospective voting in established and in new democracies

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Abstract
Economic prosperity is the best recipe for an incumbent government to be re-elected. However, in some democracies, governing parties seem to suffer more in elections during the crisis than in others. Going beyond the common models of retrospective economic voting, this paper posits both the economy and corruption as explanations of electoral losses of incumbent governments, and introduced two contextual factors, which moderate the degree to which citizens vote retrospectively: types of democratic legitimacy, and the intensity of party-voter linkages. Hypotheses are tested on new dataset on electoral volatility in 44 democracies world-wide, over 24 years. Results suggest that citizens in young democracies tend towards a performance-based view of their regimes’ legitimacy, and this makes government parties very vulnerable to economic downturns. The beneficiaries of this anti-incumbent effect in young democracies are newly founded political parties.

1 Introduction
Elections in new democracies regularly resemble political earthquakes (Roberts 2008; Tavits 2008; Kreuzer and Pettai 2012; Sikk 2012). With no single government having ever being re-elected in subsequent elections, and political outsiders skyrocketing the scores of electoral success, Bulgaria is an archetypical case for electoral instability in new democracies, rather than an outlier. In the new democracies of Central and Eastern Europe, inter-election volatility, is more than twice as large either in Western Europe or Southern Europe. And Latin America, whose democracies have endured only little more than their Central and Eastern European counterparts, follows closely. However, differences persist: while the new democracies of Central and Eastern Europe are characterised by persistent losses of incumbent governing parties in elections, the anti-incumbent effect is much less pronounced in Latin America, as in Southern Europe or in the Western democracies (Western Europe and

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North America). This paper asks whether voters in new democracies are consistently unreliable and their voting behaviour unstable.

To understand the persistent differences in volatility and vote losses for the incumbent parties ("incumbent volatility") between newer and older democracies, this study amends on models of retrospective voting. In the past decades, the literature on retrospective economic voting has made its way from the United States (Fiorina 1981), over Western Europe (Lewis-Beck 1986), Latin America (Remmer 1991), Central and Eastern Europe (Mishler and Willerton 2003; Duch 2001; Roberts 2008; Lewis-Beck and Stegmaier 2008), and recently been applied to study the political consequences of the global economic crisis (Bartels 2013; Kriesi 2013). In a nutshell, it argues that governing parties are vulnerable to the economic situation, as voters tend to reward incumbent parties for strong economic performance, but defect from them in times of crises. Interestingly, systematic analyses of the differences in retrospective voting between old and new democracies have remained rare.

This paper distinguishes three different explanations of incumbent volatility between old and new democracies: firstly, they might be the consequence of genuinely volatile voters in less established democracies. Secondly, they might be the consequence of persistent differences in economic performance and corruption between the four regions. Or, thirdly, there might be contextual explanations, why retrospective voting is particularly strong in new democracies. We focus on contextual effects, and distinguish two different forms of retrospective voting – based on the economic performance of governments, and on corruption. Our linkage-legacy model considers two contextual factors, which moderate the two different forms of retrospective voting. The first context variable are citizen-party linkages, the second is the way how citizens view democratic legitimacy (or type of political support). In the countries, which have democratised in the third wave of democratisation, the democracy agenda was closely connected with the agenda of market and economic reforms, which has created widespread expectations that democracy is a project to catch up with the economic development in Western Europe or North America. This connection led to a type of performance-oriented democrats, who react much more sensitively to economic downturns, and withdraw their support from the political authorities if they do not live up to the expectations.

Empirically, we build on a new, and one of the largest datasets of volatility, covering 44 countries from Europe and North and South America over a period of 24 years. Our analysis distinguishes between the gains or losses of governing parties (incumbent volatility),
opposition parties, and new political parties. The large-N approach enables us to compare voters' retrospective availability across different types of democracies and to differentiate between pre- and post-crisis elections.

This paper is structured as follows. The second part introduces two contextual factors, which affect the availability of voters - linkages and legitimacy. In the third part we operationalize our variables and introduce the dataset on incumbent volatility. The fourth part presents the models and discusses the empirical findings, while the fifth part concludes.

2 Theoretical model
For our theoretical model, we build on the concept of the available voter (Bartolini 1999), and on retrospective voting (Fiorina 1981).

Retrospective voting relies on a picture of representative democracy, where voters evaluate the different offers of political parties in elections similar to customers, who evaluate different offers on an ideal market (Mansbridge 2003; Bartolini 1999, 2000). In analogy to a customer, voters can consider advertisements about the offer, i.e. the issue positions revealed by the party manifesto, or they can judge the offer based on past experiences with the supplier, i.e. they can judge the past behaviour or the performance of a party in office.

While this is certainly a quite wide-spread type of voter, this section argues that it is a very context-specific type, which might be present much more frequently in some types of democracies than in others. In this section, we introduce the type of legitimacy, which citizens relate to their regime, and party-voter linkages as two contextual factors, which might affect retrospective voting, and different sub-types of it.

2.1 The (non-)available voter
We start our discussion of the retrospective voting model with the non-available voter (figure 1). Non-available voters have a stable identification with a political party, and do not adjust it, based on new information. Hence, their vote choice will always be stable.

If all voters were non-available, there would be no electoral competition, as parties would have nothing to gain. They would neither need to adjust their positions to the issue preferences of the electorate, nor would they need to perform well in office.2

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2 In other models, e.g. in the cleavage-model, alternative mechanisms can provide for a link between voters and parties, and constrain parties to consider the preferences of their voters.
Therefore, in the electoral market or in the responsible government model (Downs 1957), a relevant number of voters need to be available (Bartolini 1999). *Available voters* do not, or only mildly, let their electoral choice be determined by their prior party identification, by ideologies, or by their group identity. Instead the available voter is "a perfect elastic consumer, who is, by definition, available to change his/her partisan preference, should a better offer be made to him/her" (Bartolini 1999, 461). To evaluate the offer, they will use different pieces of information. Either, they vote prospectively, based on the electoral promises by political parties or candidates (Mansbridge 2003, 516), or they complement this information with a (retrospective) evaluation of the performance of political parties. Retrospective information can, for instance, give them a rough idea about the possible performance of the party in a future legislative period (Fearon 1999).³ Voters can more easily (retrospectively) evaluate the work of government incumbents than of opposition parties, because the latter were not able to implement their policies.

Figures 1 & 2: The non-available voter and the retrospective economic voter

To assess the retrospective performance of a party, voters might consider very diverse information. The literature has mainly investigated the impact of economic performance on voting behaviour, assuming that this is a quite universal goal of politics in Western democracies, and thus focused on the retrospective *economic* voter (Lewis-Beck 1986; Fiorina

³ Mansbridge (2003) implies a type of a retrospective issue voter, who considers the policies of a government as an indication of its further orientation. While we find this model very plausible, we believe that it is hardly distinguishable from prospective issue voting, and it is probably not very relevant for aggregated effects on parties, which are addressed in this paper. Government policies, which differ from the voters' issue position, might make the coalition losing votes, but winning others.
When voters’ personal and/or the country's economic situation prospers they will reward the government. Previous voters of a governmental party will stick to their vote choice in the previous election, and voters of an opposition party might possibly switch to a governmental party in the next elections, in consideration of the economic success of the government. In periods of bad economic performance, by contrast, the government might lose some of its previous voters to the opposition (figures 1 & 2).

Often, voting retrospectively is easier said than done: is the national government responsible for the economic performance, or can it be attributed to a general/global trend (Duch and Stevenson 2008, 339; Bartels 2013; Hellwig and Samuels 2007)? Can in a coalition government the party, which is responsible for the performance of the economy, clearly be identified (Powell and Whitten 1993; Duch and Stevenson 2008)? Does the party system offer a viable electoral alternative to the governing party (Remmer 1991)? Are all voters equally affected by the economy (sociotropic voters), or do they differ according to the individual consequences, which they face (pocketbook voters) (Alvarez and Nagler 1998; Duch and Stevenson 2008)? And do citizens perceive the economic situations subjectively, so that partisans of the incumbent parties are immune against economic crises, and loyal to the government (Bartels 2002; Evans and Andersen 2006)? Despite this debate about the specification of retrospective economic voting models, the findings show robustly that macroeconomic economic success is positively related to the vote gains of parties in government (Lewis-Beck and Stegmaier 2007, 527).

H1: Strong indicators of macro-economic performance will be positively related to electoral gains of incumbent parties.

While the theory of retrospective voting could universally apply to a wide range of aspects of government performance, empirical studies have with few exceptions concentrated on economic voting. The theory could be applied to any issue which citizens tend to support fairly unanimously¹: good governance, and especially the rule of transparency, and the fight against corruption (Peters and Welch 1980; Welch and Hibbing 1997). While low degrees of corruption are not the sole aspects of a good democratic government, they are certainly the least contested aspects of it (Rothstein and Teorell 2008). Corruption addresses a wide range

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¹ For a more complete review of this literature, see Anderson (2007), Lewis-Beck and Stegmaier (2007) and Healy and Malhotra (2013).
² Malhotra and Kuo (2008) and Hobolt and Tilley (2014) have attempted to study retrospective voting on more controversial issues.
of ways, how political decision-makers pursue their private interests at the expense of the citizens (Keefer 2007, 808).

When corruption is a major issue on the national political agenda, is it also likely to become an important aspect of the electoral choice (Mishler and Willerton 2003). Certainly, government action and/or the political system are not the only explanations for the level of corruption. Similar to economic performance, there are plenty of other factors, which affect corruption. Corruption is also linked to the behaviour of actors in the private sector, and they are a legacy of long-established practices. The perception of governmental responsibility might also differ, if we distinguish between "grand corruption", which involves high governmental officials, and petty corruption by bureaucrats (Rose-Ackerman 1999, 27-38). Nevertheless, associating corruption with the political elite is not less plausible than making the government responsible for the economic performance (Anderson and Tverdova 2003). In analogy to the retrospective economic voter, we thus argue that the retrospective corruption voter rewards its government for improved standards in terms of corruption: in times of high levels of corruption it will break away from parties in government, and in times of low corruption, it will be more likely to switch to one of the governmental parties (figure 3).

**H2: High levels of corruption will be negatively related to electoral gains of incumbent parties.**

**Figure 3: The retrospective corruption voter**

\[
\text{vote}_{t+1} = \text{vote}_{t}(\text{gov}) - \text{corruption}
\]

**2.2 Retrospective voting, linkages and legitimacy**

As argued above, the retrospective voting model deals with political representation as a principle-agent relation, and with elections as a political market. Retrospective economic voting further relies on the idea that economic performance is one of the main goals, which voters associate with democratic representation.

Even though these ideas and assumptions are very plausible, and extremely well documented with empirical evidence, they might not apply equally in every context. This paragraph tackles the basic assumptions, in order to identify two context factors, on whose
presence the retrospective (economic) voting model relies. We will discuss the role of *legitimacy* and *linkages*.

**Legitimacy and political support**

The evaluation of democratic governments is closely connected to the expectations, and the type of support citizens develop towards their democracies.

Procedural support for democracy and its authorities is usually considered to be more stable than performance-oriented support. Citizens with a procedural type of support perceive democracy as a set of rules, which provides legitimacy to freely and fairly elected actors (Gilley 2006; Rothstein 2006). If a government does not provide for the desired outcomes, this does neither undermine its legitimacy - which is given from observation of the rules - nor the legitimacy of the overall democratic system. Procedural support for democracy does usually not come along over night.

In contrast, performance-based support for democracy is based on the output, which democracy creates for its citizens. Citizens expect an improvement of their personal welfare from democracy, which is better than in other forms of governments. Rules and procedures are less crucial (Huang et al. 2008; White 1986). As the transition from performance-based support to procedural support for democracy is a matter of democratic experience, the output-perspective is particularly important for democratic support in young democracies.

The literature distinguishes different objects of democratic support: they range from support for particular political actors, to governments, to the political regime (Easton 1965; Norris 1999). It is expected that the support for actors and governments is volatile, and depends on the performance of these actors. Differently, in established democracies, the support for democracy is considered to be more stable. In the long-run, the support which democracies accumulate for their performance converts into more diffuse support for the regime. Instead of legitimising the regime due to its performance, citizens start building their political support based on democratic procedures, and their repeated and long-lasting application (Huang et al. 2008; Mishler and Rose 2001; Booth and Seligson 2009). This explains why established democracies do not suffer from (short-time) decline in performance, as young democracies risk to: their support is procedural, not performance-based, and this gives them a reservoir of legitimacy, irrespective of their output.

The distinction between the object of support has been subject to critique. The idea that low performance affects the support for the political actors and the government, but not the support for the regime, is closely linked to the notion of procedural legitimacy. Citizens in
more recently established democracy build a rather holistic view of their regime, the
government, and its output: if the performance drops, this affects support for actors, the
government, and the regime equally negatively (Mishler and Rose 1996, 557; Booth and
Seligson 2009, 32).

We expect that a performance-oriented concept of democratic legitimacy is particularly
pronounced in the third wave of democratisation. Political transition in Southern Europe,
Latin America and Central and Eastern Europe was closely linked with the goal of market
and/or economic reform, and democracy the entry ticket for free trade and common markets
(Evans and Whitefield 1995). Democracy was perceived - and promoted - as the way to catch
up with the better life perspectives of citizens in the democracies in North America and/or in
the European Community. Hence, citizens in third-wave democracies were encountering and
experiencing democracy not solely as a political regime, but also as a political-economic
system, which brings new economic opportunities and better life conditions along with the
democratic regime. Democracy, market economy, and the promise of a better life are, in this
regard, two sides of the same medal. As a consequence, many citizens of new democracies
will perceive their regime as legitimate based on its performance, rather than on its
procedures.

Both performance and procedural democrats will therefore withdraw their support from
governments, if they perform badly (Dalton 1999).6 But political systems whose legitimacy is
first and foremost based on performance live with a "legitimacy straightjacket" (Gilley 2009,
58): performance-oriented citizens expect, first of all, democratic governments to provide for
economic well-being (Anderson 1995a; Weatherford 1987; Weil 1989). Consequently, the
support for political authorities should suffer enormously if the elites are unable to provide its
citizens with the necessary goods (Mishler and Rose 1996, 572).7

H3a: In countries, where citizens tend to express a performance-based view of
democratic legitimacy, the economic performance will have a stronger effect on electoral
gains and losses of the governing incumbents.

H3b: In countries, where citizens tend to express a performance-based view of
democratic legitimacy, lower economic performance will have a stronger effect on radical
political changes, such as the electoral success of new political parties.

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6 See Della Porta (2000) for a corruption-related argument.
7 For a contrary hypothesis, see Duch (2001).
Linkages

The second context factor, which affects retrospective voting, are linkages. We have argued that retrospective voting models rely on voter availability. Hence, voters should not, or only mildly, let their electoral choice be determined by their prior party identification, by ideologies, or by their group identity.

But this is not necessarily evident. We need to distinguish the effect in different party systems, based on the strength of the linkages, which parties have established in society. Party-citizen linkages can exist in different forms: in the case of social cleavages, political parties act as representatives of interests of social groups, and target public policies and state expenditures at their social constituencies (Cox and McCubbins 1986). In clientelist systems, they trade votes for private goods, which they deliver to their voters, or groups of citizens, whom they can identify as their likely voters (Kitschelt and Wilkinson 2007).

Analysing retrospective corruption voting, we are interested in the moderating effect of linkages. Linkages certainly do not completely eliminate the evaluation of incumbent parties based on their performance. But they alter the form of retrospective corruption voting. High levels of corruption and clientelism convert the relationship between citizens and political authorities. Corrupt practices create hierarchical dependencies between the citizens and the political and economic elite. Access to public services or to public employment is linked to clientelistic relationships. This often involves petty bureaucratic corruption. Even though corruption and clientelism lead to inequalities, at the benefit of public officials, citizens have a strong incentive to establish links to the authorities. As a consequence, while opposition voters in corrupt political systems feel deprived of their democratic rights, and withdraw their political support from the authorities, the effect is much weaker for voters of the government incumbents (Anderson and Tverdova 2003). Voters of the incumbent party would lose substantially from switching to the opposition, as this would deprive them from their privileged links to the governing officials (Stokes 2005). To the contrary, clientelist systems create incentives for voters of the opposition to switch to the governing party, in order to enter the clientelist network. In systems without such linkages, political parties do not have any established connections to their constituencies. Corruption will materially deprive the citizens of public goods, and party loyalty is – as a lack of established linkages – no means of

8 But see Grzymala-Busse (2007, 133-81), who critically discusses the patronage hypothesis for Central European and for Bulgaria – due to too weak ties between parties and voters.
9 Klašnja et al. (forthcoming, 18) present contrary evidence from Slovakia. They argue that voters living in towns, which are controlled by the governing party (and thus more likely to be partisans of the governing party) are more likely to punish their government for corrupt behaviour.
getting easier access to state services. We would thus expect that retrospective corruption voting mainly plays a role at the lack of linkages.

**H4: With stronger party-voter linkages, the effect of corruption on electoral gains and losses of the governing incumbents will be weaker.**

*The linkage-legitimacy model*

We postulate, thus, two forms of retrospective voting – based on the economic performance and on corruption – and two contextual factors, which moderate the strength of retrospective voting. Figure 4 offers an overview over the model and the hypotheses.

We distinguish four ideal types of democratic systems, based on the type of democratic legitimacy, and the presence of strong linkages between citizens and parties.

- In democracies with strong linkages, and a strictly procedural legitimacy of the regime (upper left side of the graph), we expect that retrospective voting is weak on both dimensions, corruption and economy. In countries with high shares of procedural democrats, the political system and the authorities can rely on a large reservoir of trust, and this protects them from too harsh reactions of voters in times of crisis. And in linkage-based systems, voters have strong incentives to stay with the incumbent, even in the case of high levels of corruption.

- In democracies with strong linkages and performance-based legitimacy of the political system (upper right side of the graph), we expect to find retrospective economic voters. The performance-based legitimacy leads to strong changes in the public opinion in the case of economic downturns, but the strong linkages allow the incumbent to keep its support even in the presence of high levels of corruption.

- Democracies with weak linkages and a high degree of performance-based legitimacy (lower right side) are the ideal type of systems, where we would expect highly available voters. Due to the performance-based political support, the incumbents are vulnerable to economic crises, and lacking strong linkages, they are also vulnerable to the perception of corruption.

- Last but not least, there is a fourth theoretical type of democracies (lower left side), which combines procedural democrats with weak linkages. As the economic dimension of retrospective voting is weak, they lead to the model of the retrospective corruption voter.
3 Operationalisation

The analysis is conducted at the level of elections. We distinguish the electoral swings of governmental and opposition parties. To account for the fact that the electoral gains and losses of the governmental and the opposition parties are inter-dependent, we include robust standard errors, which are clustered by countries and election years.

**Dependent variable**

The theoretical model discusses the electoral consequences of government performance. Our hypotheses explain, in which situation we would expect the governmental parties to gain, or to lose votes. Instead of focusing on party system volatility - a general measure for electoral change, we analyse the electoral gains of the government, the opposition, or new political parties. We decompose the Pedersen index (1983) into

- incumbent volatility, calculated as the cumulated vote change for all parties of the incumbent governmental coalition,
- opposition volatility as the cumulated vote change for all opposition parties, and
new party volatility, considering only the gains of new parties.  

*Governmental parties* were identified by three (highly correlated) operationalisations: a) those parties, which were in government at the end of the legislative period, b) the coalition three months before the elections (in order to exclude very short technical governments), or c) those which were part of the governing coalition for more than half of the legislative period. Additionally, we also operationalized government parties exclusively with the party of the Prime Minister (or President). As the results are robust to different operationalisations of governmental parties we report results for the third measure for all parties in the government coalition. Government coalitions, and their duration, is calculated by using a dataset by the Wissenschaftszentrum Berlin (WZB)

*New parties* are those parties, which did neither run in previous elections, nor are they the result of a party split or merger. Different from Sikk (2005), we also defined all political parties with small vote shares in previous elections as new parties. We chose this possibly surprising definition, because we are convinced that there are very few differences between parties, which are newly founded (e.g. GERB in Bulgaria), and previously existing, small and political irrelevant parties, which suddenly gain importance under a new leadership and with a completely renewed image (e.g. Smer in Slovakia). All cases in our data, where very small parties suddenly gained large amounts of votes, can be considered as new parties. As stated, our measure counts solely electoral changes, and should thus not be biased by votes previously held by small parties.

To measure vote changes, we have compiled one of the largest datasets on volatility. It tracks political parties in 44 European, South, and North American countries, over 24 years (1990-2013). The extension to smaller Central American countries is on its way. Partially, we could build on data from Mainwaring and Zoco (2007), Bochsler (2009), Lane and Ersson (2007) and (Ruth, 2012), but we have re-coded the parties according to our coding criteria, and extended the data, in order to cover the full time period.

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10 We use the two most common measures of inter-election volatility, and the Gallagher index (1991). We further modified the Pedersen index, and measure only new parties (defined as all parties with <3% of the votes in the previous elections), and we measure the losses of incumbent governing parties (in coalition longer than half the legislative period).

11 We use different thresholds, at 3%, 5% or 10% of the votes. To rule out a possible selection bias, our measure also counts vote losses of small parties. We report results for the 5% threshold.

12 Albania, Argentina, Austria, Belgium, Bolivia, Brazil, Bulgaria, Canada, Chile, Colombia, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Mexico, Montenegro, Netherlands, Norway, Paraguay, Peru, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom, Uruguay.
While in stable party systems, calculating party volatility is an arithmetic exercise, in new and volatile party systems, this required us to deal with frequent splits and mergers. We used the methodology discussed by Sikk (2005), in order to assess electoral vote changes for parties, which merged, formed a coalition, or split from one election to the next (see appendix A). Information on party splits and mergers is foremost based on the "Notes on recent elections" sections in Electoral Studies, various issues of the “Political Data Yearbook” of the European Journal of Political Research, and the database about parliamentary elections and political parties in Europe (Nordsiek 2012). Information on party splits and mergers in Latin America is based on (Ruth, 2012).

Figure 5 and 6 a-c illustrate differences in volatility between different regions and over time. We see that a country's overall volatility and the volatility of new parties and incumbent parties, respectively, is around twice time as high in Central and Eastern Europe than in either Southern or Western Europe (see Figure 5). The overall volatility and the volatility of new parties in Latin America is comparable to Central and Eastern European countries. By contrast, Latin American voters seem more reluctant to vote governments out of office than voters in Central and Eastern Europe as indicated by the comparatively lower level of incumbent volatility. While there is considerable variation over time, volatility in Central and Eastern Europe and Latin America is consistently higher than in the other two regions – especially with regard to the overall volatility and the volatility of new parties (see Figures 6a and 6c). Only as of 2008 the four regions begin to converge to a similar level of overall volatility.

13 For a different approach, see Powell and Tucker (forthcoming).
Figure 5: Volatility in Europe and America, 1990-2013 by region. Pederson index, new parties, incumbent volatility, and Gallagher-index of volatility.*

Regions: Central and Eastern Europe, Southern Europe (Spain, Portugal, Greece, Malta), Western Europe and North America, and Latin America.
New parties: we consider the vote change for parties, which did not compete in previous elections, or gained less than 3% of the votes.
Incumbent volatility: net vote change for parties of the incumbent government (parties who were part of the coalition during more than half the legislative period)
Figures 6a-6c: Volatility in Europe and America, 1990-2013 by five-year period (1990-1994, etc., 2008-2010), and region. Pederson index of volatility, Pedersen index for new parties, and incumbent volatility*

* Volatility index according to Pedersen (1983)
Regions: Central and Eastern Europe, Southern Europe (Spain, Portugal, Greece, Malta), Western Europe and North America, and Latin America.
New parties: we consider the vote change for parties, which did not compete in previous elections, or gained less than 3% of the votes.
Incumbent volatility: net vote change for parties of the incumbent government (parties who were part of the coalition during more than half the legislative period)
**Explanatory variables**

The *retrospective voting* model states that political parties – if they are in government – win votes, if the economy goes well, and lose, at high levels of corruption. This effect is expected to be moderated by the strength of political linkages and the type of democratic legitimacy/support.

**Economic performance** can be measured either by static measures (e.g. GDP per capita, per-capita income, etc.), by dynamic measures (e.g. economic growth), or by measures of the economic impact on the personal welfare (e.g. unemployment). We operationalized the different approaches with World Bank data (The World Bank, 2014). In line with our expectation, dynamic measures (which are most informative about the performance of the incumbent government) were the most relevant ones to explain incumbent volatility. In this paper, we report models, which use economic growth rates as the explanatory variable.

**Corruption** is measured with an indicator from the International Country Risk Guide (The PRS Group 2013), which assesses the corruption within the political system. Values range from (1) (high risk of corruption) to (6) (no risk of corruption between politics and business). We invert the scale to facilitate the interpretation. High values, thus, indicate high levels of corruption. While previous literature has used the Corruption Perception index (Mishler and Willerton 2003, 131), we favour this alternative operationalization, as the coding of the CPI has changed several times and can only be used for comparisons over time as of 2012, when a completely new methodology was introduced (Transparency International 2012).

**Linkages** are measured using Kitschelt's (2012) expert survey on democratic accountability and political linkages. Linkages are measured with an additive index consisting of three dummy variables which assess, whether a party makes a special effort to attract urban or rural voters, respectively, or voters from specific ethnic groups. Since several experts rated the parties, the mean value of the additive index was calculated for each party and then averaged over all parties to calculate a value for the intensity of linkages per country.

**The type of legitimacy** is measured by assessing to what extent economic prosperity is seen as an essential characteristic of democracy. The World Values Survey 2005-2008 includes a battery of variables which allows differentiating between different types of democratic legitimacy. Economic-performance legitimacy is measured on a scale from 1 (not
at all an essential characteristic of democracy) to 10 (an essential characteristic of democracy) with the following question and aggregated to the country-level:

"Many things may be desirable, but not all of them are essential characteristics of democracy. Please tell me […] how essential you think it is as a characteristic of democracy [that the economy is prospering]."

As the data is only available for 22 countries, and one time point, we further use a proxy to check for the effect of the type of legitimacy, the age of democracy (logarithm).\textsuperscript{14} The estimation of our models with either the type of legitimacy or the age of democracy as explanatory variable, allows us, further, to avoid possible problems of endogeneity. It has been demonstrated that the type of political support or legitimacy itself is affected by the macro-economic situation and by corruption (Rose et al. 1998). Hence, re-running our models does not only allow us to extend the number of cases, but also to instrumentalise the type of political support by the age of democracy. Our tests show that the type of legitimacy is closely associated with the age of democracy, with a correlation coefficient of -0.56, which justifies the choice to use age of democracy as a proxy for the type of legitimacy (see Figure 7).

\textit{Figure 7: Correlation between Age of Democracy (logarithm) and Performance Legitimacy}

\begin{figure}[h]
\centering
\includegraphics[width=0.8\textwidth]{correlation_diagram.png}
\caption{Correlation between Age of Democracy (logarithm) and Performance Legitimacy}
\end{figure}


\textsuperscript{14} Data on the age of democracy is based on the Database of Political Institutions (Keefer 2009)(Keefer considers a country as democratic if its combined polity score lies above 6), we count the number of consecutive, uninterrupted years under democratic governance since 1930. The logarithm accounts for diminishing marginal utility.
4 Models

Three countries in three different regions, held elections in June 2009 or July 2009: Bulgaria, Luxembourg and Mexico- All three were hit by the economic crisis of 2008, experiencing negative growth rates around -5% to -6% in the previous period. The results could not be more different: in Luxembourg, just three seats (out of 60) changed party, and the prime minister’s Christian Social People’s Party could even improve its lead in the elections; whereas in Mexico and Bulgaria, the incumbent governing parties were defeated, losing 12 to 18% of their previous votes. In Bulgaria, a newly established party ‘GERB’ swept the floor with 40% of the votes, while the previous government coalition lost more than 30%. The party, founded in 2006 by a former bodyguard and police official, achieved a landslide victory in its second countrywide election participation after the European elections in 2007.

This part aims at explaining these regional differences, with two sets of dependent variables: the degree of retrospective voting (based on two indicators of performance: economic growth and corruption), and the success of new political parties. The results allow us to distinguish between three rivalling explanations. Electoral change against the incumbent parties might be a consequence of bad economic performance and high levels of corruption and in this regard related to retrospective voting. Second, it might be related to differences in the stability of vote choice between different world regions, or third, it might be a consequence of contextual factors (linkages and legitimacy of democracy) which differ across these regions.

Retrospective voting before and during the crisis

We first explain our model, without considering context effects. Our dependent variable is electoral change by party $i$ (vote gains or losses). Our models pool the results of all governmental parties and opposition parties (plus, in a few models, for new parties), i.e. we use the cumulated electoral change as dependent variable. To distinguish the incumbent governmental parties from the opposition parties, we introduce a binary variable $\Delta\text{gov}_i$ for parties, which were part of the incumbent government. Retrospective voting is measured by the interaction terms $\text{growth} \cdot \Delta\text{gov}_i$ and $\text{corruption} \cdot \Delta\text{gov}_i$.

$$\text{electoral change}_i = \alpha + \beta_1 \cdot \Delta\text{gov}_i + \beta_2 \cdot \text{growth} + \beta_3 \cdot \text{corruption} + \beta_4 \cdot \text{growth} \cdot \Delta\text{gov}_i + \beta_5 \cdot \text{corruption} \cdot \Delta\text{gov}_i + \varepsilon$$
To analyse why volatility is genuinely higher in Central and Eastern European and Latin American countries we further include contextual explanations. This requires us to include second-order interaction terms, which capture the moderating effect of the context (here: type of democratic legitimacy) on the interaction of economic growth with the governmental status ($growth \cdot legitimacy \cdot \Delta gov_i$).

$$
elect.\ change_i = \alpha + \beta_1 \cdot \Delta gov_i + \beta_2 \cdot growth + \beta_3 \cdot legitimacy$$
$$+ \beta_4 \cdot growth \cdot \Delta gov_i + \beta_5 \cdot legitimacy \cdot \Delta gov_i + \beta_6 \cdot growth \cdot legitimacy$$
$$+ \beta_7 \cdot growth \cdot legitimacy \cdot \Delta gov_i + \varepsilon$$

We estimated the same models for our other two indicators of context (age of democracy, linkages) and for retrospective corruption voting. To test the robustness of the findings we also estimated models which include both second-order interactions simultaneously (see Table A3 in the Appendix). While the results reported here are based on models with one second-order interaction at the time, the findings are robust to the inclusion of the second order interaction effect.

First, we check whether we find a general pattern of retrospective voting based on corruption or economic growth, without focusing on the context effect. Results rely on the full model (see appendix B), but the contextual variables are fixed at their means. Results are reported in figures 8a and 8b. They show that incumbent parties are punished for economic downturns and high levels of corruption. Governments lose more votes to the opposition if economic growth is negative (hypothesis 1) and if a country is affected by high levels of corruption (hypothesis 2). It is less clear if government parties win votes if the economy prospers, but the trend seems to be positive. This effect remains stable if we only look at the crisis years (after 2008).
Figures 8a-8b: Effect of corruption and of economic growth on incumbent volatility.

Notes: Adjusted predictions of the effect of corruption and economic growth. All other variables are set to their mean.
As the influence of the context factors differs for the period before the financial crisis (all elections until October 2008), and post-crisis-elections (starting from November 2008), we present separate models for the two periods.

To facilitate the interpretation of the second-order interactions, we turn to graphical illustrations of the average marginal effect of economic growth and corruption, respectively, when the contextual variables change (see figures 9-13) (the models on which the figures are based are presented in table A2 in the Appendix). Before the financial crisis the effect of economic growth on incumbent volatility does not seem to differ between older and younger democracies. Independent of the democratic experience government parties benefit from a prosperous economy. With vote gains around 2%, however, the effect is rather weak. During the economic crisis, by contrast, young democracies react considerably stronger to the economic situation than older democracies (see figure 9). This is in line with Singer (2013), who demonstrates that economic voting is strongest in times of crisis, while voters also consider other issues when the economy prospers - e.g. foreign and social policy.

Figure 9: Marginal Effect of Economic Growth on Volatility of Government and Opposition Parties as the Age of Democracy changes

Notes: Average marginal effect (95% confidence intervals) of economic growth on government and opposition volatility over increasing age of democracy. Graphs based on Models 1 and 2 in Table A3 in the Appendix.
In other words, in established democracies, voters do not punish their governments for the economic crisis in elections after 2008. Differently, and in line with Kriesi’s (2013) results, voters in young democracies react very strongly, and reward their government if the economy prospers (since November 2008), and punish it if the economy suffers, respectively.\(^{15}\)

We can substantiate this effect more thoroughly, by directly measuring the effect of performance-based democratic legitimacy (see figure 10). This measure relies on the most recent wave of the World Value Survey, and is, therefore, only available for a subset of the countries included. In line with the previous results, we find that economic growth is rewarded (since November 2008) in countries, where citizens legitimate their democratic system based on its economic performance. Hence, if voters consider economic prosperity as one of a democracy's essential characteristics, they punish the government for bad economic performance. If they have a different concept of democracy in mind, however, they do not (hypothesis 3a). The negative correlation between performance legitimacy and the age of democracy (-0.56) further explains why younger democracies react stronger to economic changes than older democracies. As young democracies seem indeed to rely more on performance-based legitimacy than older democracies, it seems reasonable that voters in these countries react stronger to the economic situation.

\(^{15}\) There is an effect of macro-economic indicators on incumbent volatility in Western Europe after 2008, if we use a different explanatory variable – unemployment rates instead of economic growth, see also Kriesi (2013). Unemployment seems not to matter in young democracies. However, the interaction of unemployment with the age of democracy is statistically not significant at conventional levels. We further explored the effect of cumulative growth and unemployment as well as the effect of lagged unemployment and growth variables. None of these alternative measures interacted significantly with the age of democracy, however.
Figure 10: Marginal Effect of Economic Growth on Volatility of Government and Opposition Parties as Performance Legitimacy changes

Marginal Effect of Growth with 95% Confidence Intervals

Before Nov. 2008

After Nov. 2008

Notes: Average marginal effect (95% confidence intervals) of economic growth on government and opposition volatility over increasing levels of performance legitimacy. Graphs based on Models 9 and 10 in Table A3 in the Appendix.

Figure 11: Marginal Effect of Corruption on Volatility of Government and Opposition Parties as the Age of Democracy changes

Marginal Effect of Corruption with 95% Confidence Intervals

Before Nov. 2008

After Nov. 2008

Notes: High scores of corruption indicate high levels of corruption. Average marginal effect (95% confidence intervals) of corruption on government and opposition volatility over increasing age of democracy. Graphs based on Models 7 and 8 in Table A3 in the Appendix.
As expected, there is no second-order interaction effect with regards to corruption (figure 11). While incumbent parties are punished for increasing corruption (see above) this effect is not moderated by the age of democracy.

Turning to the contextual effect of linkages, we expected that the fight against corruption is mainly rewarded in countries with weak linkages (hypothesis 4). In systems with high linkages voters may benefit (or at least not be hurt) from high levels of corruption, because party loyalty may be rewarded by the corrupt elites. Results differ in the pre- and the post-crisis period. In the period before the crisis, we find that opposition parties benefit from retrospective corruption voting, i.e. voters defect from governing parties, if they observe high levels of corruption. However, party-voter linkages appear to have the opposite effect than expected, as they tend to increase the degree of retrospective corruption voting. The effect alters after the crisis, where strong linkages tend - along with our expectation - to undermine retrospective corruption voter, but not at a statistically significant level. Note, however, that we rely only on a very limited measure of linkages, which is constant over time and within countries. The contradictory results call for a more in-depth empirical analysis.

We did not have particular expectations about a possible moderating effect of linkages on retrospective economic voting, which we report in figure 13. While the effect is stronger after the crisis hit it is otherwise similar across the two time periods. As shown before, economic growth benefits incumbent parties as voters seem to reward a prosperous economy. Interestingly, the effect is stronger in countries with strong linkages between parties and voters.
Figure 12: Marginal Effect of Corruption on Volatility of Government and Opposition Parties as the Linkages change

Marginal Effect of Corruption with 95% Confidence Intervals

Before Nov. 2008

After Nov. 2008

Notes: High scores of corruption indicate high levels of corruption. Average marginal effect (95% confidence intervals) of corruption on government and opposition volatility over increasing intensity of linkages between parties and voters. Graphs based on Models 5 and 6 in Table A3 in the Appendix.

Figure 13: Marginal Effect of Economic Growth on Volatility of Government and Opposition Parties as the Linkages change

Marginal Effect of Growth with 95% Confidence Intervals

Before Nov. 2008

After Nov. 2008

Notes: Average marginal effect (95% confidence intervals) of economic growth on government and opposition volatility over increasing intensity of linkages between parties and voters. Graphs based on Models 3 and 4 in Table A3 in the Appendix.
Central and Eastern Europe versus Latin America

Particular attention is needed, when we aim to explain the different effect of economic growth in young democracies versus established democracies. We argue that the age of democracies reflects the type of legitimacy (political support) which citizens attribute to their regime, which in established democracies is rather oriented towards procedures, and in young democracies towards the (economic) performance. An alternative explanation rather stresses historical legacies in the most recently democratised group of countries in the analysis, Central and Eastern Europe. According to these voices, the performance-orientation of post-communist citizens can be attributed to the legacy of the communist economy, with a much more active role of the state in providing citizens with social welfare. To test for this alternative explanation, we have tested whether the effects differ systematically between (post-communist) Central and Eastern Europe and Latin America - also young democracies, with no communist legacy. Besides the inclusion of binary variables for each region (although not in interaction with economic growth), we have analysed the residuals by region, and we have excluded the Latin American countries from the models. While Latin American democracies tend to have been less affected by the crisis, and tend to have generally higher levels of volatility, they do not react differently to economic recessions than their counterpart in Central and Eastern Europe (see appendix C).

Who wins from electoral volatility?

Apart from analysing vote losses of government parties, we are also interested in which parties win, when the government gets punished for economic downturns (hypothesis 3b). We, therefore, analyse electoral volatility of new parties and previous opposition\textsuperscript{16} parties separately (see table A4 in the Appendix).

As figures 14 and 15 indicate, the pattern is very different for new and old democracies. In newer democracies, political outsiders form new parties, and benefit from the vote losses of governmental parties (hypothesis 3b). Previous opposition parties, however, are much less successful or even lose votes. This trend is in line with previous studies on elections in Eastern Europe which showed that elections regularly resemble political earthquakes as government parties and established opposition parties are severely punished and previously marginal or non-existent parties gain a considerable amount of the votes (Sikk 2005, 2012).

\textsuperscript{16} We define new parties as parties which did either not participate in previous elections, or received few votes - i.e. we count parties as new if the won less than 5\% of the total votes in the previous elections. We exclude Latin American democracies from this part of the analysis as we face methodological difficulties to define new parties due frequently changing election alliances.
Figure 14: Predicted vote changes for new parties

Electoral Gains of New Parties*

Before Nov. 2008

After Nov. 2008

* Notes: Adjusted predictions of the effect of the age of democracy on the volatility of new parties and previously very small parties (less than 5% of the votes in previous elections), with 90% confidence intervals. Graphs based on Models 1 and 2 in Table A4 in the Appendix.

Figure 15: Predicted vote changes for established opposition parties

Electoral Gains of Established Opposition Parties

Before Nov. 2008

After Nov. 2008

Notes: Adjusted predictions of the effect of the age of democracy on the volatility of large opposition parties, with 90% confidence intervals. Graphs based on Models 3 and 4 in Table A4 in the Appendix.
Both in established and in new democracies, rates of electoral volatility have increased after the economic crisis of 2008. However, while electoral earthquakes, bringing political outsiders to power, occur regularly in Central and Eastern Europe (Sikk 2012) and - driven by presidential elections - in certain Latin American democracies (Mainwaring et al. 2006, 21-2), they have until recently been unthinkable in more established democracies in Western Europe or Southern Europe. For instance, voters in Spain, punished its government in 2011 for the worsening economic situation, but they voted for the established opposition party, the Partido Popular. The success of the Cinque Stelle movement in Italy is an isolated outlier. Opposition parties in established democracies lose much fewer votes to newly-founded parties, which is in line with the observation that party systems remain more or less stable over different election periods.

5 Conclusions

Voters in new democracies often appear as unreliable, and their electoral choices unstable (Roberts 2008; Tavits 2008; Kreuzer and Pettai 2012). In such a context, the accountability of governments suffers. If the incumbents expect to lose office in subsequent elections, due to a hyper-volatile electorate, they do not have any incentives for good government. The fact that in many new democracies governments tend to be voted out of office in almost every election certainly contributes to such a pessimistic view.

This paper confronts this view with two alternative explanations why governmental parties lose votes, both focusing on retrospective voting. First, the factors, which we expect to drive retrospective voting – economy and corruption – partly explain why voting is more volatile in new democracies: compared to old democracies, the economic performance is more volatile (hypothesis 1), and the available indicators suggest that in young democracies, the level of corruption is higher (hypothesis 2). Second (in contrast to studies conducted on the Latin American crisis of the 1980s (Remmer 1991)), citizens in new democracies are more likely to hold their governments accountable for the consequences of the global financial crisis of 2008.

We explain this with two contextual variables, which are affecting the degree of retrospective voting: First, citizens in young democracies tend to have a different understanding of democracy, than those in old, established democracies. On the one hand, citizens in countries, which have democratised in the third wave, have get to know democracy as a mean to catch up with the living standards and economic prosperity of North America and Western Europe.
On the other hand, the formation of procedural legitimacy of democracy is a long-lasting process. This puts governments in new democracies in a "legitimacy straightjackets" (Easton 1965; Gilley 2009, 58): if citizens perceive economic prosperity as the ultimate goal of democracy, they will withdraw their support from the regime, and its main actors, if democracy cannot satisfy their economic expectations.

Results tend to support our hypothesis 3a in the post-2008 period. We have related retrospective economic voting either to direct measures of types of democratic legitimacy (which are only available for a small number of cases, and only at one time point), and to the age of democracies – a close proxy for the type of legitimacy. With both operationalizations, the effect plays, but primarily after the economic crisis of 2008.

We do not only find that the electoral success of government parties in new democracies is particularly closely tied to economic performance (after the crisis), but we also report substantial differences in the beneficiaries of worsening economic situations: while in older democracies, they benefit the established opposition, we find that the voter reactions are much more pronounced in new democracies, by shifting to completely new parties (hypothesis 3b).

Second, we expected party-voter linkages to moderate the effect of retrospective corruption voting (hypothesis 4). Voters in countries with weak linkages cannot expect to benefit from clientelistic practices and should, therefore, punish corrupt governments more severely. We do not find any evidence, however, that retrospective corruption voting is linked to the absence of strong linkages between parties and voters.

The explanation of the before-and-after crisis differences asks for a further refinement of the model. Theoretically, we find it plausible that established democracies with a procedural legitimacy can easier absorb economic shocks. To test this empirically, we would, however, need to rely on measures of democratic legitimacy for pre- and post-crisis years.
6 References


———. 2013. "Ideology and Retrospection in Electoral Responses to the Great Recession."


Appendix A: Party coding

In the case of splits, mergers, or coalitions, we need to decide, how to code parties that participated on their own in one election (t-1), but formed a coalition at the next election (t), and with parties that split from other parties. To deal with party mergers we calculated the difference between the new party at time t and the sum of the constituting parties at time t-1. In other words, we created an artificial coalition at time t-1 to calculate the volatility at time t. If a party split from a previously existing party and participated in the following elections (t) as an independent party, by contrast, we constructed an artificial "old" party to calculate the volatility between the original party (t-1) and the sum of the new and remaining parts of this party at time t. For more clarification the logic of dealing with splits and mergers is illustrated in tables A1a and A1b.

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Table A1b: Party splits

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## Appendix B: Regression models

### Table A2: Explanations for incumbent volatility

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<td>4.74 (11.02)</td>
<td>5.52* (2.15)</td>
<td>12.58 (8.71)</td>
<td>5.32*** (1.43)</td>
<td>9.82* (3.99)</td>
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<td>0.444</td>
<td>0.378</td>
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Notes: Clustered standard errors in parentheses (country and election year): + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001; 1): The type of legitimacy is measured with two variables. In Models 1-8 Legitimacy is measured with the Age of Democracy (logarithm), while in Models 9-10 we use our measure of economic performance legitimacy.
Table A3: Explanation for incumbent volatility, include second second-order interaction

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<td>(5.98)</td>
<td>(17.28)</td>
<td>(5.90)</td>
<td>(31.09)</td>
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<tr>
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<td>-0.54*</td>
<td>-1.67**</td>
<td>0.92*</td>
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<td></td>
<td>(0.22)</td>
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<td>(0.42)</td>
<td>(1.46)</td>
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<tr>
<td>Government*Growth</td>
<td>1.12*</td>
<td>3.51**</td>
<td>-1.90*</td>
<td>-1.81</td>
</tr>
<tr>
<td></td>
<td>(0.46)</td>
<td>(1.04)</td>
<td>(0.88)</td>
<td>(2.86)</td>
</tr>
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<td>Legitimacy(^1)</td>
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<td>1.98+</td>
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<td>(1.32)</td>
<td>(1.74)</td>
<td>(1.15)</td>
<td>(2.95)</td>
</tr>
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<td>-2.76</td>
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<td>(2.69)</td>
<td>(3.37)</td>
<td>(2.38)</td>
<td>(5.90)</td>
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<td>0.95+</td>
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<td></td>
<td>(0.17)</td>
<td>(0.50)</td>
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<td>(0.98)</td>
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<td></td>
</tr>
<tr>
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<td>1.12+</td>
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<td>-12.71</td>
<td>-2.07</td>
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<td></td>
<td>(2.89)</td>
<td>(10.11)</td>
<td>(1.34)</td>
<td>(6.51)</td>
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<td>1.13</td>
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<td>(7.02)</td>
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<td>6.28</td>
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<td>(4.29)</td>
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<tr>
<td>Corruption*Legitimacy</td>
<td>-1.25*</td>
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<td>2.12</td>
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<td>(0.56)</td>
<td>(2.81)</td>
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<tr>
<td>Gov<em>Corruption</em>Legitimacy</td>
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<td>2.15+</td>
<td>-4.28</td>
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<td>(1.17)</td>
<td>(5.63)</td>
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<td>(8.43)</td>
<td>(2.82)</td>
<td>(15.38)</td>
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N = 339 70 339 70
Regional Dummies Yes Yes Yes Yes
adj. R\(^2\) = 0.390 0.459 0.431 0.455

Notes: Clustered standard errors in parentheses (country and election year): + \( p < 0.10 \), * \( p < 0.05 \), ** \( p < 0.01 \), *** \( p < 0.001 \);
\(^1\) Legitimacy is measured with the Age of Democracy (logarithm).
Table A4: Explanations for small party volatility and opposition volatility

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<th>(4)</th>
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<td>-1.98⁺</td>
<td>-0.90***</td>
<td>-2.07*</td>
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<td>(0.17)</td>
<td>(1.15)</td>
<td>(0.24)</td>
<td>(0.82)</td>
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<td>(2.09)</td>
<td>(1.23)</td>
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<td>Growth * Legitimacy</td>
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<td>1.79⁺</td>
<td>0.17</td>
<td>1.73*</td>
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<td>(0.16)</td>
<td>(0.94)</td>
<td>(0.17)</td>
<td>(0.82)</td>
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<td>CEE</td>
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<td>12.08⁺</td>
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<td>(3.37)</td>
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<td>27</td>
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<td>adj. R²</td>
<td>0.078</td>
<td>0.204</td>
<td>0.164</td>
<td>0.191</td>
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Notes: Clustered standard errors in parentheses (country and election year): + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001
1: Legitimacy is measured with the Age of Democracy (logarithm).
Appendix C

Regional comparison, Central and Eastern Europe and Latin America

In this appendix we test whether the findings for hypothesis 3a differ between Central and Eastern Europe and Latin America. According to hypothesis 3a citizens in younger democracies are punishing their governments more strongly for bad performance, due to a performance-based type of regime support. Alternative explanations highlight the communist legacy in Central and Eastern Europe, leading to a stronger orientation of their citizens towards state services and a more strongly performance-driven type of support. If the legacy-based argument shall hold true, this would imply that our model is strong for Central and Eastern European democracies (where the young age of democracy correlates with the communist past), whereas Latin American democracies would be expected to be outliers.

We have performed a number of checks.
1. Re-running the models, by excluding the countries of Latin America, leads to the same results.

2. We have estimated the unexplained variance (squared residuals) for models 1 and 2 in table A2, and plotted them by region (see figure A1). Latin America does not result as an outlier, compared to the established democracies (Western Europe, North America), and compared to Central and Eastern Europe.

3. We have calculated the explanatory power of the model for each of the three regions (table A5). We find that the model performs slightly worse, when explaining the volatility in Latin America before the crisis, compared to other regions. This is, however, also the period for which we do not observe statistically significant effects for hypothesis 3a. During and after the economic crisis of 2008, when we find supportive evidence for hypothesis 3a, the model performs equally well for Latin America as for the other two regions.

All conducted tests show that the model fits Central and Eastern Europe and Latin American democracies similarly well. We interpret this as support for our explanation of
hypothesis 3a, i.e. the argument that a performance-orientation of citizens is rather a consequence of young democracies than of the communist legacy.

Figure A1: Unexplained variance (squared residuals) for models 1+2, by region.

![Box plots showing residuals for established democracies, CEE, and LA regions before and after the crisis.](image)

Table A5: Explanatory power for models 1+2, calculated for regional sub-samples.

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