Studies in Comparative International Development (2021) 56:271–296
https://doi.org/10.1007/s12116-021-09340-x

Electoral Volatility in Latin America, 1932–2018

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Accepted: 25 June 2021 / Published online: 21 July 2021

Abstract

This paper examines electoral volatility in Latin America from 1932 to 2018, covering both presidential and lower chamber elections. The paper makes two contributions. First, we present a new, carefully documented dataset about electoral volatility and the vote share of new parties. Scholars interested in both subjects will be able to use the data to explore a wide range of issues. We contribute to the descriptive knowledge about patterns of electoral volatility and the vote share of new parties in Latin America. Second, we contribute to theoretical knowledge about extra-system volatility (the part that results from the emergence of new competitors) and within-system volatility (the part of volatility that stems from aggregate vote transfers among established parties) and to incipient debates about theoretical expectations about differences between extra- and within-system volatility. Poor economic growth, a perception of pervasive corruption, and low levels of partisanship are fertile terrain for new parties (extra-system volatility). Party system polarization and a fragmented party system foster within-system volatility.

Keywords Electoral volatility · New parties · Latin America · Party systems · Party identification

This paper analyzes electoral volatility in Latin America from 1932 to 2018, covering both presidential and lower chamber elections. We add to existing work in two ways. First, we present one of the most extensive datasets on electoral volatility, spanning a long time and large number of countries, political regimes, and elections. The dataset shows what the levels of volatility have been and how they have varied over time. Our time period is much longer than almost all previous work on this subject, and our sample of regimes, countries, and electoral periods for Latin America is broader. The dataset distinguishes between volatility caused by the entrance

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of new competitors and volatility among established parties. It includes detailed coding rules and details about 1760 specific coding decisions in hundreds of elections, making the coding decisions transparent to other researchers and facilitating replicability.

Cohen et al. (2018), Mainwaring and Bizzarro (2018), and Roberts and Wibbels (1999) are the primary antecedent works on electoral volatility in Latin America. Our time coverage is broader than these previous works, and our coding rules diverge considerably from Cohen et al.'s (2018). Accordingly, our results also diverge considerably.

Second, we contribute toward understanding the correlates of extra-system volatility (the part of volatility that goes toward new parties), within-system volatility (volatility that represents aggregate shifts from one established party to another), and the differences in the dynamics between extra- and within-system volatility. In agreement with previous scholars, we argue that it is useful to distinguish between these two kinds of volatility. Within-system volatility is typically routine electoral competition. In contrast, new parties disrupt the existing system, and voters might choose them to express disgruntlement with the entire set of existing partisan options. Therefore, we ask under what conditions voters might be more likely to defect from the entire existing system and cast a ballot for new contenders. We offer three answers: poor economic growth, corruption, and low levels of partisanship.

Several scholars have underscored the capacity of poor economic growth to destabilize party systems. As Morgan (2011) and Seawright (2012, pp. 63–87) demonstrated, bad economic results might generate disgruntlement with the existing parties, paving the way for new contenders. Along similar grounds, Lupu (2016) argued that poor economic performance interacted with declines in partisanship to explain party collapse. Conversely, good performance should insulate established parties from new contenders. Therefore, we expect an association between poor economic results and an increased vote share for new parties.

A perception of widespread corruption can tarnish the entire set of establishment parties. In such a context, many voters believe that all parties, not only the ones identified with a particular scandal, are corrupt (Pavão 2018). Some voters turn against the system and vote for new contenders (Vidal 2018), leading potentially to party system collapse (Coppedge 2005; Seawright 2012). Although corruption has been a salient concern to voters in many countries around the world, few previous works on volatility included perception of corruption (see Crisp et al. 2014, and Powell and Tucker 2014, p. 136). We find that high perceived corruption is strongly associated with voting for new parties.

For generations, scholars have argued that partisanship at the individual level underpins party system stability at the aggregate level (Converse 1969; Green et al. 2002; Lupu 2016). Although prominent works on Latin America have argued that steep declines in partisanship helped bring about party collapse (Lupu 2016) or party system collapse (Seawright 2012), previous scholarship has not explored whether higher levels of partisanship help buffer party systems from new contenders. We find that this is in fact the case.

Our final theoretical argument involves the relationship between party system polarization and within-system volatility. In a polarized system, most parties have distinctive ideological positions. As spatial voting theory suggests, vote switching between parties is less likely when the ideological distance between parties is large (Bartolini and Mair 1990; Downs 1957). Therefore, partisans are unlikely to switch votes among existing parties. There is less reason to expect that polarization would blunt the entrance of new contenders. Some polarized systems, such as El Salvador's between 1994 and 2019, leave a huge space open for centrist contenders, potentially making it easier to new parties to be successful.

The Latin American Electoral Volatility Dataset

Our Latin American Electoral Volatility Dataset (LAEVD) is the most comprehensive compiled for this region and one of the most comprehensive for any region. It also provides possibly the longest time span for the vote share of new parties of any dataset. Our estimates of volatility include all electoral periods that meet three criteria:

1) At least two consecutive elections were carried out under this regime; otherwise, it is impossible to calculate volatility.
2) The data for both elections of the electoral period must be available. This eliminated a few early electoral periods in Peru and Ecuador.
3) The Varieties of Democracy project (V-Dem) classified the second election in the election period as at least "somewhat free and fair."

For presidential elections, the dataset includes nineteen countries, 155 electoral periods, and 711 different parties in 28 democratic or semi-democratic regimes extending back to 1932. The data for the lower chamber cover 1320 different parties and 197 electoral periods in 26 regimes also dating back to 1932. The final year of data collection was 2018. To our knowledge, this is, along with Bartolini and Mair (1990) on Western Europe, the longest time series on electoral volatility. To make the dataset transparent, easily replicable, and more useful to other scholars, we documented how we treated coding decisions regarding new parties, schisms, mergers, changes of party names, formation of and dissolution of coalitions, and party exits. The codebook explains 1065 specific coding decisions for lower chamber elections and 695 decisions for presidential elections.

We disaggregate volatility into extra-system and within-system volatility. Extra-system volatility is the vote share of new parties, and within-system volatility is the increase in the vote share of established parties that gained from the first election of an electoral period to the second. Several scholars have demonstrated that it is useful to make this distinction or one like it (Birch 2003; Cohen et al. 2018; Emanuele and Chiaramonte 2018; Kuenzi et al. 2019; Lago and Torcal 2019; Mainwaring et al. 2017; Powell and Tucker 2014; Weghorst and Bernhard 2014). Aggregate transfers among established parties typically represent normal patterns of electoral competition. In contrast, the emergence of important new contenders changes the party system.

Scholars have adopted two main approaches to disaggregating total volatility into vote shifts among established parties, on the one hand, and the emergence of new contenders and exit of established parties, on the other. Mainwaring et al. (2017) and Emanuele and Chiaramonte (2018) distinguished between volatility that results from aggregate transfers among established parties and volatility that stems from shifts from established parties to new ones. Powell and Tucker (2014), Cohen et al. (2018), Kuenzi et al. (2019), and Weghorst and Bernhard (2014) distinguished between what the former called Type A and Type B volatility.[1] Type A is the vote share of new parties plus the vote share loss of parties that exited (i.e., won no votes in that election and did not compete thereafter), divided by two. Type B is the percentage share gained by some previously existing parties, plus the share lost (as an absolute value) by other previously existing parties that did not exit the system, divided by two.

These two measures capture partially overlapping and partially different aspects of party system change. We use the distinction between extra- and within-system volatility, which separates the study of the birth of new parties from the analysis of the extinction of existing parties. Our data and analyses are directly comparable to the extensive scholarship that has analyzed new parties (Bolleyer 2013; Haughton and Deegan-Krause 2020; Sikk 2005). Aggregating party birth and death into one measure could obscure different processes and differences in what drives party death and party birth.[2]

As Casal Bértoa et al. (2017) have shown, the coding rules are highly consequential for estimating electoral volatility. The two most consequential decisions are what counts as a new party and as a continuous electoral unit ("party") from one election to the next. Our coding rules emphasize substantive changes in a party system, not changes of name or coalition partners.

Scholars have adopted very divergent rules for what counts as a new party (Emanuele and Chiaramonte 2018, pp. 476–478; Haughton and Deegan-Krause 2020, pp. 28–66). Because the purpose of our distinction is to capture new entrants into the electoral market, we count only "genuinely new parties."[3] In presidential elections, for a party to be new, it must meet two conditions: (a) it never ran or was part of a coalition that ran in any previous presidential election, and (b) it never ran in a national congressional election prior to the penultimate presidential election. If a coalition is new, we do not count its votes as going to a new party unless the presidential candidate comes from one.

[1] Cohen et al. (2018) refer to Type A volatility as Party Replacement Volatility and Type B as Stable Party Volatility.

[2] Our lower chamber volatility dataset also includes a calculation for Types A and B volatility.

[3] The concept "genuinely new parties" comes from Sikk (2005), but we operationalize it less restrictively than Sikk. He counted a party as new only if the politicians who formed it did not come from a previously existing party. We do not adopt this criterion. Our criteria for a new party match those of Emanuele and Chiaramonte (2018).

Similarly, in lower chamber elections, a new party must meet two conditions: (a) it never ran in any previous lower chamber election, and (b) we are not aware that it ran in any other election prior to the penultimate lower chamber elections. We treated changes of party names as continuities from previously existing organizations.

Coding decisions about how to treat party mergers, splits, and the formation and dissolution of coalitions also significantly affect estimates of volatility (Casal Bértoa et al. 2017; Sikk and Köker 2019). We treat new coalitions, the dissolution of coalitions, splits, and mergers as a partial continuity rather than a complete change or a complete continuity. On-line Appendices 1 and 2 give the detailed coding rules for presidential and lower chamber elections, respectively.

Descriptive Patterns

Table 1 shows the means by political regime for extra-system, within-system, and total volatility. It also includes the USA as a benchmark comparison case of a stable party system. The table is organized from lowest to highest total volatility.

Most regimes in Latin America have experienced high average volatility in presidential elections. For the 155 presidential electoral periods, the means are 35.3% for total volatility, 12.5% for extra-system volatility, and 22.8% for within-system volatility. In lower chamber elections, the means for 197 electoral periods are 24.6% for total volatility, 6.8% for extra-system volatility, and 17.8% for within-system volatility. Volatility also fluctuates more in presidential elections. The standard deviations are 19.9 for total volatility, 18.1 for extra-system volatility, and 17.7 for within-system volatility in presidential elections compared to 14.8, 8.5, and 12.3, respectively, for lower chamber elections.

On average, within-system volatility accounts for 63% of presidential volatility and 72% of lower chamber volatility. This reverses the finding of Powell and Tucker (2014) for the post-communist countries and of Cohen et al. (2018) for Latin America; both reported that Type A volatility was much greater than Type B.[4]

To compare extra-system volatility with Type A, we coded party exits in lower chamber elections, counting an exit only if a party definitively died. On average, extra-system volatility is 24% higher than Type A volatility—6.8% versus 5.5%. For the 197 lower chamber electoral periods, the bivariate correlation between extra-system and Type A volatility is 0.85.

By way of comparison with a stable system, mean total volatility in the USA was 8.4% in presidential elections (2.6% extra-system and 5.8% within-system) and 3.8% in lower chamber elections (all within-system). Average extra-system volatility in Latin American presidential elections was almost five times greater than in the USA (12.5% versus 2.6%). Mean extra-system volatility has been much higher in Latin America compared to Western Europe, though the gap has narrowed in this century (Emanuele and Chiaramonte 2018).

[4] Consistent with our finding, Lago and Torcal (2019) report that endogenous volatility is considerably higher than exogenous volatility.

Table 1 Electoral volatility in presidential and lower chamber elections in Latin America and the United States

Presidential elections					Lower chamber elections				
Country[1]	Elections included	Mean vote share, new parties	Mean within-system volatility	Mean total volatility	Country	Elections included	Mean vote share, new parties	Mean within-system volatility	Mean total volatility
Honduras	1981–2009	0.2	7.0	7.1	United States	1972–2018	0.0	3.8	3.8
United States	1972–2016	2.6	5.8	8.4	Honduras	1981–2009	0.3	7.8	8.1
Uruguay[1]	1942–1971	0.2	10.8	11.0	Uruguay	1942–1971	0.9	9.7	10.6
Uruguay	1984–2014	1.6	9.7	11.2	El Salvador	1991–2018	6.4	6.8	12.8
Argentina	1946–1951	0.1	12.9	13.0	Uruguay	1984–2014	1.6	11.2	12.8
Dominican Rep	1978–1986	5.5	11.7	17.1	Argentina	1946–1951	0.1	14.6	14.7
El Salvador	1989–2014	8.9	9.1	18.0	Brazil	1945–1962	1.2	14.6	15.9
Dominican Rep	1994–2016	7.1	18.8	25.8	Dominican Rep	1978–1986	4.7	11.5	16.2
Nicaragua	1984–2006	9.5	16.5	26.1	Chile	1989–2017	3.8	12.6	16.4
Costa Rica	1953–2018	5.4	20.7	26.1	Colombia	1958–2018	6.4	10.2	16.6
Mexico	1988–2018	12.9	14.5	27.4	Brazil	1986–2018	3.7	14.5	18.3
Cuba	1940–1948	23.5	7.6	31.0	Mexico	1991–2018	2.9	16.8	19.7
Chile	1989–2017	12.2	20.3	32.5	Panama	1994–2014	2.1	19.9	22.0
Guatemala	1944–1950	30.9	3.7	34.6	Dominican Rep	1994–2016	5.6	16.5	22.0
Brazil	1989–2018	1.6	34.3	35.9	Paraguay	1989–2018	9.9	14.9	24.8
Paraguay	1989–2018	11.2	26.0	37.1	Argentina	1983–2017	4.2	21.4	25.6
Venezuela	1958–2006	22.7	15.1	37.8	Nicaragua	1984–2006	1.4	25.9	27.3
Colombia	1970–2018	18.1	20.2	38.3	Cuba	1940–1950	10.9	17.1	27.9
Brazil	1945–1960	0	38.6	38.6	Costa Rica	1949–2018	7.8	22.1	29.9
Bolivia	1985–2014	11.3	31.1	42.4	Ecuador	1979–2017	10.2	20.0	30.2
Panama	1989–2014	5.6	37.7	43.4	Chile	1932–1973	8.0	22.3	30.3
Ecuador	1979–2017	20.6	22.8	43.4	Venezuela	1958–2010	14.4	18.0	32.4
Argentina	1983–2015	19.5	25.5	45.0	Guatemala	1985–2015	12.7	27.8	40.5

Table 1 (continued)

Presidential elections					Lower chamber elections				
Country[1]	Elections included	Mean vote share, new parties	Mean within-system volatility	Mean total volatility	Country	Elections included	Mean vote share, new parties	Mean within-system volatility	Mean total volatility
Chile	1932–1970	3.4	45.5	49.0	Bolivia	1980–2014	10.8	30.5	41.3
Guatemala	1985–2015	31.2	24.9	56.1	Peru	2000–2016	12.2	30.2	42.5
Peru	2000–2016	17.5	40.6	58.1	Guatemala	1950–1953	28.0	14.9	42.9
Peru	1980–1995	35.2	29.2	64.4	Peru	1980–1995	17.6	39.6	57.1
Ecuador	1952–1960	46.9	29.0	75.9					
Peru	1939–1945	0.0	77.5	77.5					

Note: Between 1950 and 1966, Uruguay did not have a presidential system

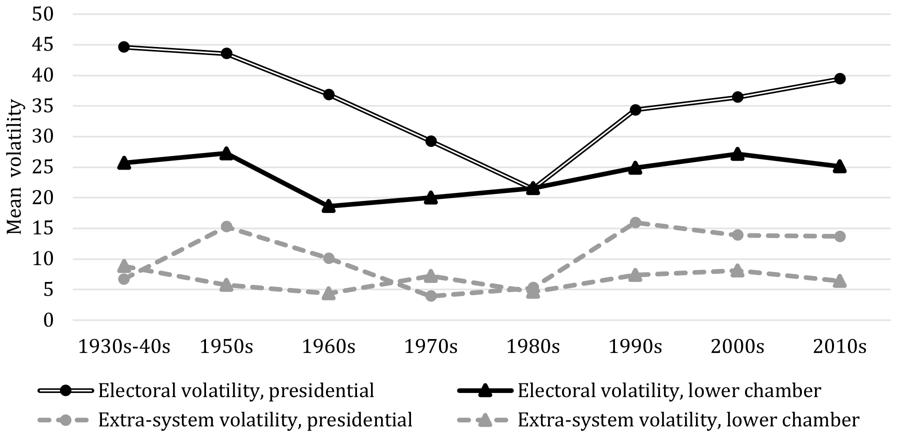

Fig. 1 Latin America, mean total and extra-system volatility by decade

Variance across regimes and electoral periods is great. In presidential elections, average total volatility varied from 7.1% in Honduras (1981–2009) to 77.5% in Peru (1939–1945). Variance across individual electoral periods is huge, especially for extra-system volatility. New parties won 99.3% of the presidential vote in Venezuela in 1998 when Hugo Chávez won power for the first time.

Figure 1 shows mean total and extra-system volatility over time. In presidential elections, mean total volatility has been persistently high. The "frozen" party systems that characterized Western European democracies from the 1920s through the 1960s (Lipset and Rokkan 1967) were never common in Latin America. Volatility has increased in Latin America in recent decades, as it has in Western Europe (Emanuele and Chiaramonte 2018), but in Latin America, it has reverted to the high levels of the decades before the 1970s.

Advantages of the Dataset

The study of electoral volatility has burgeoned since Pedersen (1983) published his seminal paper. Yet there is still a lack of good, publicly available data with explicit, detailed rules for coding volatility and detailed information about specific coding choices. Accurate coding requires a substantial time investment, and in light of how frequently scholars use volatility as a dependent or independent variable, it makes sense that data based be publicly available. The LAEVD is part of ongoing efforts to address that problem.

The LAEVD has several advantages, some of which we have already mentioned: the long time span, the fact that it includes both presidential and lower chamber elections, and the disaggregation into extra- and within-system volatility. Another advantage is that the LAEVD has demanding rules for counting a party as new. This makes the dataset more useful for capturing what is really new in a party system. Cohen et al.'s (2018) Latin American Presidential and Legislative Elections (LAPALE) dataset also measures volatility for Latin America, but with much laxer coding rules for what constitutes a new party. Whereas we count only genuinely new entrants, Cohen et al. (2018) count a change in name, a new coalition, a merger, a split, etc., as new organizations. This results in different estimates of the number of parties that participated in elections and in different understandings of party system dynamics. The LAPALE dataset includes 2501 "parties," but it is not clear how many are distinctive individual parties.

The differences in coding sometimes result in sharply divergent estimates of Type A volatility compared to our extra-system volatility. In lower chamber elections, Cohen et al.'s (2018) coding for Type A volatility for Bolivia 2005–2009 and Peru 2011–2016 is 99.9 and 91.25, respectively, while our coding for extra-system volatility is 3.07 and 22.63, respectively. Cohen et al. (2018, p. 1019) argue that their coding for new parties "most closely approximates voters' experiences: changes in names imply information costs." However, counting a coalition of well-established parties as new is problematic if the goal is to capture what is genuinely new. Most voters recognize well-established parties that have high-profile politicians even if the coalition is new. For the Bolivian election of 2009, Cohen et al. code the MAS (Movimiento al Socialismo) as a new party even though its candidate, Evo Morales, won the 2005 presidential election in a landslide with 54% of the vote, until then by far the most since the restoration of democracy in 1982. By 2009, Morales was Bolivia's most high-profile leader, and MAS was the best-known party. Morales and MAS again won in a landslide in 2009 with 64.2% of the presidential vote and 88 of 130 lower chamber seats. In 2009, the opposition Plan Progreso para Bolivia-Convergencia Nacional (PPB-CN) was a new alliance, but its core members were very established. The MNR, Movimiento Nacionalista Revolucionario, won six presidential elections from 1956 to 2002. The Nueva Fuerza Republicana (NFR) was created in 1995 and became a major party in 2002. The PPB-CN's 2009 presidential candidate was one of Bolivia's best-known politicians, Manfred Reyes.

We did not find a survey question that specifically asked about name recognition of Morales, Reyes, or Bolivia's main parties, but other survey questions suggest widespread voter recognition of Bolivia's leading politicians and parties. A 2008 LAPOP survey asked respondents for whom they had voted in the 2005 presidential election. The question was open-ended; the enumerators did not read a list of names. Even so, 940 of the 2178 who said they had voted in 2005 reported that they had chosen Morales, and 970 of the 1337 who indicated a vote intention stated that they would opt for Morales if the elections were the next Sunday.[5] Whereas Cohen et al. show Bolivia's party system of 2009 as representing an almost complete rupture from 2005, we show high continuity. A focus on what parties are really new and on continuities despite partial changes in coalitions often yields very different estimates of extra-system volatility.

A third advantage of the LAEVD is the detail and transparency of the general coding rules and of specific coding decisions. These features enable easy replication for other regions and time periods. Details about specific coding decisions allow

5 VB3 and VB20a. The question for VB3 was "For whom did you vote in the last presidential elections in 2005?" VB20a was "If the next presidential elections were Sunday, for whom would you vote.".

other scholars to refine the dataset. Along with a team of research assistants, we invested hundreds of hours into developing and refining the coding rules; researching hundreds of specific decisions about mergers, splits, and changes of party names; and building and revising the database. Even so, the database is amenable to revision based on input from country experts.

A fourth advantage of the LAEVD is that we count every party except when the original data sources have a category of "others" that aggregates several small parties. Some works on electoral volatility and on new parties have used thresholds; they count new parties only if they win some percentage of the vote. Using all of the data by including small parties results in greater accuracy. Excluding new parties because they do not meet a threshold can skew results—especially if that threshold is as high as 2%. For example, in the Ecuadoran National Assembly election of 2017, twelve new parties each garnered less than 2%, but collectively, they won 7.13% of the vote. This was all of the vote that new parties won that election, and it is slightly above the 6.8% mean for the entire dataset.

Theoretical Expectations About Extra-System Volatility

Notwithstanding the voluminous literature on this subject, scholars have noted that theoretical development about the correlates of the different types of volatility has lagged (Lago and Torcal 2019; Crabtree and Golder 2016; Powell and Tucker 2014). There is little previous theoretical work on how the correlates of extra- and within-system volatility or Types A and B should differ; Lago and Torcal (2019) are the primary exception.

As noted, within-system volatility is mostly routine electoral competition; one established party gains while another loses. In contrast, extra-system volatility changes the party system, and voters who opt for new parties frequently follow an anti-system logic (Haughton and Deegan-Krause 2020; Vidal 2018). Thus, at the micro-foundational level, the logic of voting for new parties might differ from that of changing to an establishment party.

Although there is an abundant literature on the emergence of new parties, most of it has focused on the advanced industrial democracies. There is limited theoretical work on new parties in Latin America (Mustillo 2009). If we think about the individual-level foundations of extra- versus within-system volatility, the question is what prompts individual voters to cast a ballot for a new party rather than shifting to another established entity.[6] One obvious explanation is disgruntlement with all existing options; Pop-Eleches (2010) called this a "Throw the Bums Out Logic." What, then, is likely to generate disgruntlement with the existing set of parties, leading to a higher vote share for new parties? We propose four hypotheses.

[6] Many changes in party systems result initially from elite decisions to form new parties, merge or split existing ones, or form or dissolve coalitions. Even when changes are elite-initiated, voters make the ultimate decisions that affect electoral volatility.

H1: Poor economic performance should be associated with high extra-system volatility.

An extensive literature has shown that economic performance affects the electoral fate of governing parties (Powell and Whitten 1993; Remmer 1991, 1993). The scholarship on electoral volatility has incorporated this finding and has used some economic indicators as predictors of volatility. Good economic performance should help insulate established parties from new contenders, reducing extra-system volatility. Conversely, as Morgan (2011) and Seawright (2012, pp. 63–87) demonstrated, bad economic results might generate disgruntlement with the existing set of parties, paving the way for new organizations. Along similar grounds, Lupu (2016) argued that poor economic performance interacted with declines in partisanship to explain party collapse. Therefore, we expect an association between poor economic results and an increased vote share for new parties. We expect this association primarily in presidential elections because presidents are more visible than congress for economic results.

H2: Economic performance should have a stronger association with extra-system volatility than within-system volatility.

Except for Kuenzi et al. (2019) and Lago and Torcal (2019), the literature has not theorized whether economic performance should have different effects on within- and extra-system volatility. Lago and Torcal hypothesized that economic performance should affect only endogenous volatility, which is close to our within-system volatility. We hypothesize the opposite; we expect poor growth to be associated with high extra-system volatility and to have a weaker correlation with within-system volatility.

The literature on economic voting agrees that poor results lead to larger-than-average vote shifts against the incumbent party, likely generating higher-than-average within-system volatility. If good performance results in significant vote gains for the incumbent party, this could also result in higher-than-average within-system volatility. Large swings against or toward the incumbents because of bad periods and economic booms, respectively, might offset each other, diluting the association between growth and within-system volatility. In a simplified scenario with two parties and two electoral periods, if 5% growth rate is associated with a swing of 10% toward the governing party and a negative 5% growth rate is associated with a swing of 10% away from it, when we average these effects, there would be no association between growth and volatility.

The asymmetry hypothesis of economic voting suggests a counter hypothesis: voters punish the government party because of poor performance but reward it less (if at all) for good performance (Claggett 1986; Jensen and Rosas 2020; Nannestad and Paldam 1997). If this hypothesis held up, periods of low growth would be associated with high within-system volatility caused by shifts away from the incumbents, and high growth would be associated with normal volatility. When we average these effects, poor growth would be associated with high within-system volatility.

Park's (2019) recent study using surveys for 122 elections in 42 democracies finds little support for the asymmetry hypothesis that poor economic performance affects voting more than positive performance. Her work indicates that both country-level economic indicators and individual-level retrospective economic evaluations affect vote intention for the incumbent party. Strong GDP growth is associated with a higher likelihood that a voter will vote for the incumbent; moreover, voters are more likely to vote for the incumbent when they have a better perception of the national economy. Her work thus provides micro foundations that underpin our expectation of a weak relationship between growth and within-system volatility. Several other studies also show that strong growth is associated with a higher vote share for the incumbent party in the next election (Dassonneville and Lewis-Beck 2014, 381–383; Hellwig and Samuels 2007, 292; 2008, 74; Singer 2013, 179–180). At the individual level, Lewis-Beck and Ratto (2013) found that Latin American voters were more likely to vote for the incumbent party when they perceived that the national economy over the past year was getting better.

Even if the asymmetry hypothesis were correct, it claims that poor economic performance has a greater impact than positive performance, not that the latter has no impact. If positive results have some impact on aggregate vote swings toward the governing party, the effects of positive performance will partially offset the effects of negative performance.

Thus, we hypothesize that economic growth has a stronger association with extra-system volatility than with within-system volatility. We test this hypothesis with a T-test for the difference between the coefficients for growth in the two regressions.[7] We measure per capita GDP growth and inflation[8] as average annual change by taking the geometric mean from the first year to the penultimate year of the electoral period. The estimates of GDP per capita growth are based on the World Development Indicators for 1961–2018 (World Bank 2019), on Penn World Tables for 1951–1960 (Heston et al. 2012), and on the Maddison Project for 1932–1950 (Bolt and Van Zanden 2014).

Corruption

H3: High levels of perceived corruption are associated with high extra-system volatility.

A perception of widespread corruption can cause voters to abandon the existing parties. It can delegitimize all parties, not merely those that are more visibly engaged in transgressions (Pavão 2018; Seawright 2012; Vidal 2018). If voters blame corruption on specific parties, they might defect from them to other establishment parties, resulting in high within-system volatility. However, in countries with a perception of pervasive corruption, many voters conclude that most parties are corrupt. Pavão (2018) showed that in Brazil, a widespread perception of corruption generated a voter sentiment that all politicians and parties are corrupt. Under these

[7] We used the formula recommended by Paternoster et al. (1998) for conducting the T-tests.

[8] It is not possible to calculate a log from a negative value. To minimize the number of missing observations, we assumed that inflation below 1% per year including deflation has an impact on electoral volatility that is indistinguishable from that of an inflation rate of 1%. We recorded all such cases as having a logged inflation of 0.

circumstances, citizens might develop anti-system attitudes that lead them to vote for new parties.

Seawright (2012, pp. 89–112) argued that in Peru and Venezuela, corruption delegitimized the established parties, prompting a precipitous decline in party identification and eventually leading to party system collapse. Voters who were concerned with corruption in Venezuela and Peru were especially likely to cease identifying with an establishment party (Seawright 2012, pp. 103–107) and less likely to vote for one (pp. 125–128, 138–140). Agerberg (2020) argued that voters prefer clean candidates to corrupt politicians even when the latter "are appealing in other regards" (p. 259). Although he does not make this point, outsider parties and politicians are more able than tarnished parties and politicians to run on a label of being clean anti-establishment forces, and they frequently do so (Hanley and Sikk 2016; Haughton and Deegan-Krause 2020). Therefore, in contexts of widespread corruption, new parties should have an advantage (Haughton and Deegan-Krause 2020; Pop-Eleches 2010).

If Seawright's argument about the effects of corruption hold across a wide range of Latin American countries, and if Pavão's argument that corruption can delegitimize the existing parties rather than just those that are most visibly tarnished, a high perception of corruption will be associated with high extra-system volatility (Crisp et al. 2014). Our variable for perception of corruption comes from the World Governance Indicators, whose series starts in 1996. Scores are standard deviations with respect to the world mean (Kaufmann et al. 2009). We average the World Governance corruption indicator from the first year of an electoral period to the penultimate year.

Partisanship

H4: High levels of partisanship are associated with low extra-system volatility.

Many scholars have portrayed party identification at the individual level as the micro foundation for a stable party system (Converse 1969; Green et al. 2002; Lupu 2016; Seawright 2012). Partisanship shows attachments of voters to parties and a strong disposition to vote for that party (Bartels 2000; Green et al. 2002). Partisans remain faithful even when their parties do not perform well in government (Lupu 2016; Seawright 2012). Therefore, they are not available to vote for new parties or outsider candidates. At the aggregate level, high levels of partisanship are insurmountable barriers against party collapse (Lupu 2016; Seawright 2012). Parties become vulnerable to collapse if government performance is deficient and partisanship plummets.

Lupu (2016) and Seawright's arguments have important implications for understanding electoral volatility. We analyze the part of their arguments that focus on the levels of party identification—specifically, the percentage of survey respondents who reported a party identification. On average, partisans are more attached to their parties and more likely to vote consistently from one election to the next than other respondents. Because partisanship makes voters less likely to defect to new parties, we expect high aggregate partisanship to be associated with low extra-system volatility. This relationship has not been tested in the literature on electoral volatility. High levels of partisanship might also be correlated with low within-system volatility.

To measure party ID, we use a Latinobarómetro question from 1995 (eight countries), 1996, 1997, and 2003: "With respect to the political parties, do you feel very close, fairly close, just a sympathizer, or not close to any party." We sum the answers for "very close," "fairly close," and "just a sympathizer" to estimate the percentage of respondents who identified with a party. The Latinobarómetro did not ask the same question after 2003. Since 2006, the Americas Barometer project has asked "Do you currently identify with a political party?" We use this question to extend the time series. We use the last available survey for a given electoral period.

Theoretical Expectations About Within-System Volatility: Polarization

H5: Ideological polarization is associated with low within-system volatility.

Several works have argued that party system polarization is associated with lower total volatility (Roberts and Wibbels 1999; Su 2014; Tavits 2005). However, these studies do not discuss whether polarization reduces within-system volatility, extra-system volatility, or both. We hypothesize that the reduction effect of polarization mainly works for within-system volatility. In a polarized system, most parties have distinctive ideological positions. As spatial voting theory suggests, vote switching between parties is less likely when the ideological distance between them is large (Bartolini and Mair 1990; Downs 1957). Therefore, partisans are unlikely to switch votes among existing options. Polarization should reduce within-system volatility "by anchoring parties and their constituencies in highly differentiated ideological positions" (Roberts and Wibbels 1999, p. 579). Empirically, Vegetti's (2019) analysis of Hungary shows that the sharp decline of vote switching among existing parties (Type B volatility) between 2002 and 2006 and between 2010 and 2014 was linked to the fact that the main established parties were perceived to be more ideologically distinctive from each other.

The relationship between polarization and extra-system volatility is less clear. Based on spatial voting theory, Kitschelt (1995) argues that a system with limited ideological distinctiveness might open up electoral space that could be exploited by new radical right parties. Spoon and Klüver (2019) demonstrate that when mainstream parties converge on the median voter, their former voters tend to switch their support for new more extremist parties. Lupu (2016) argued that ideological convergence can blur party identities, lead to decreasing party identification, and make parties vulnerable to collapse. In turn, collapse generates opportunities for new parties. Abedi (2002) finds that anti-establishment parties (which are often new) tend to gain more votes when the established contenders converge ideologically.

In contrast, Ignazi (1996: 559) finds that the new extreme right parties in Europe in the 1980s attained more electoral success in polarizing systems. Morgan (2011) and Seawright (2012) argue that large gaps in ideological representation leave the established parties vulnerable to collapse and create space for new contenders. These ideological gaps could occur because the main established parties have converged (similar to the argument in Lupu 2016 and Roberts 2014). However, they could also form in the center of a polarized system dominated by the left and right, allowing new centrist parties space, as in El Salvador in 2019. Therefore, Morgan (2011) and Seawright (2012) implicitly suggest an indeterminate relationship between polarization and extra-system volatility.

Our variable for polarization was developed by Dalton (2008) and is calculated based on Singer's (2016) formula. Ideological positions come from Baker and Greene's (2011) estimates of the position of each party's presidential candidate.[9] Next, the mean ideology of all presidential candidates weighted by the party's vote share is subtracted from the ideology of each party's presidential candidate. Then, these differences are squared and weighted by the candidate's vote share in the election. Finally, the square root of the sum of these differences is used to estimate polarization, as reflected in the formula below, in which i represents each party, V is the vote share, and LR is left–right ideology.

$$\text{Polarization} = \sqrt{\sum\nolimits_{\mathrm{i}=0}^{\mathrm{n}} \mathrm{V}_i \left(\mathrm{LR}_i - \mathrm{LR}_{mean}\right)^2}$$

We use the same formula to calculate polarization scores for lower chamber elections. Values of polarization for presidential elections range from approximately 1.2 to 8.1, and for lower chamber elections from 0 to 7.8, with higher values corresponding to higher polarization.[10] Our score reflects the average of the polarization score in the first and second elections of an electoral period.

Other covariates

The literature on electoral volatility has examined five main theoretical categories of correlates: timing and aging effects, formal rules, party system features and levels of partisanship, economic performance, and structural/demographic. As control variables, we use nine additional covariates that reflect aspects of these five theoretical approaches. In order to directly compare results of the regressions for the presidential and lower chamber elections, we use the same covariates for both.

For Converse (1969), party systems stabilize over time as partisan identities take hold. His study provided a micro-level foundation for positing that party systems become more stable over time.[11] This is an *aging* effect. Along similar lines, Roberts and Wibbels (1999) suggested that parties in older systems have deeper organizational and societal roots than those in younger systems. Therefore, as a system

[9] The values of the ideological scale range from 1.6 to 19.

[10] For earlier periods in which the ideological scores are unavailable in Baker and Greene's (2011) dataset, we use the first available data point for the parties in the dataset. For presidential candidates whose ideological scores are unavailable but Baker and Greene (2011) assigned their parties ideological scores in the legislative elections, we use the legislative score. For presidential candidates whose ideological scores are unavailable in both the presidential and legislative elections in Baker and Greene (2011), we rely on Coppedge (1997).

[11] The argument that volatility diminishes over time has been supported by Lupu and Stokes (2010) and Madrid (2005). For fifteen East European democracies, Tavits (2005) showed that volatility increased right after a regime change, but the increasing trend was reversed as democracy aged.

ages, it would have lower volatility. Following Mainwaring and Zoco (2007), we call this variable Age of Democracy. It measures the number of years from the founding presidential election of a new regime until the second election of an electoral period. To account for diminishing effects over time, we use the natural log.

Mainwaring et al. (2017) and Mainwaring and Zoco (2007) argued that democracies established at an early time tended to have lower volatility. We measure this variable (Birth Year of Democracy) as the number of years from the founding election of a new democracy until 2018. We again use the natural log. Age of Democracy and Birth Year of Democracy are empirically weakly related; the (unlogged) bivariate correlation is only 0.13 for presidential elections and 0.17 for lower chamber elections.

Carreras (2012) showed that concurrent elections create barriers to outsider presidential candidates. Likewise, focusing on lower-house elections in Central and Eastern Europe, Andrews and Bairett (2014) found that concurrent presidential and parliamentary elections decrease volatility due to party exit and entry. Hence, concurrent elections might lower extra-system and total volatility. Concurrent elections = 1; nonconcurrent elections = 0.

A runoff for electing the president makes a system more open because citizens can vote sincerely in the first round and strategically in the second round. The option to vote sincerely in the first round might make it more tempting to support a new party. Therefore, runoffs might be associated with higher volatility. Runoff = 1; no runoff = 0.

Longer terms give politicians more time between elections to form new parties, give voters more time to defect from their previous electoral choice, and result in more turnover in the electorate. Therefore, longer terms might be associated with higher volatility (Lago and Torcal 2019). We measure the length of the term in years.

Several scholars have found that party systems with a higher effective number of parties have greater volatility (Lago and Torcal 2019; Mainwaring et al. 2017; Roberts and Wibbels 1999). Our measure is the effective number of parties in the lower chamber in the first election of the electoral period.

High inflation might increase volatility, so we include it in the regressions. For most countries, data for inflation come from Mitchell (1998) for 1932–1959; Bruno and Easterly (1995) for 1960–1979; and International Monetary Fund (2019) for 1980–2018. We use the natural log.

We use per capita GDP as a control variable in case some unspecified characteristics of wealthier countries favor stable party systems (Bernhard and Karakoç 2011). The natural log accounts for non-linear effects. This variable is measured at the first year of the electoral period. For most countries, the data for per capita GDP are from the World Development Indicators (World Bank 2019) for 1960–2018, from Penn World Tables for 1950–1959 (Heston et al. 2012), and from the Maddison Project for years before 1950 (Bolt and Van Zanden 2014).

Madrid (2005) and Van Cott (2000) argued that indigenous populations were less connected to parties than other voters, making them more likely to be floating voters, and hence generating higher volatility. This variable is the percentage of the population that is indigenous. The data come from Madrid (2016).

On deductive grounds, the existing literature does not indicate strong reasons to believe that the control variables should affect extra- and within-system volatility differently. On-line Appendices 3 and 4 show the descriptive statistics for presidential and lower chamber elections, respectively.

Estimation and Results

We report results from generalized estimating equations (GEE) models with an autoregressive (AR1) specification (GEEAR1) and semi-robust standard errors. The GEEAR1 is arguably the most appropriate model for our data.[12] GEE models are appropriate for data sets with temporally correlated errors and with more units than time periods. We chose an autoregressive correlation structure, AR (1), because the dependent variables are expected to be positively correlated over time, and this correlation is likely to be larger for consecutive elections than for those farther apart in time. Because the dataset includes unevenly spaced observations, we used the "force" option on Stata for GEEAR1.

The regressions in Table 2 exclude party identification and perception of corruption so that we can include a longer time series with many more electoral periods. We dropped some electoral periods because of missing information for some covariates in early elections. Short-lived regimes with only two elections dropped out because the AR (1) models require at least two electoral periods (three elections) after the inauguration of democracy.

Columns 4 and 8 indicate whether the differences in coefficients for extra- and within system volatility are statistically significant, based on a T-test. Whereas the other statistical tests in Table 2 indicate whether a coefficient differs from 0, Columns 4 and 8 show whether the coefficient for extra-system volatility differs from the one for within-system volatility. Four correlates of within-system volatility differ from those of extra-system volatility at $p < 0.05$ or less.

Above, we hypothesized that poor economic growth would be associated with high extra-system volatility (H1) and that growth would have a stronger association with extra-system than within-system volatility (H2). Consistent with this expectation, in presidential elections, high growth is strongly associated with low extra-system volatility, and the correlation with within-system volatility is not significant. Each increase of 1% in per capita growth is associated with a decrease in extra-system volatility of 2.1%—a large substantive difference. Within-system volatility does not vary much according to the rate of economic growth. The overall mean for within-system volatility in presidential elections was 22.2% ($n = 144$). Within-system volatility was 22.9% in the 18 electoral periods of strong growth (at least one standard deviation above the mean). It was slightly lower, 18.9% in the 21 electoral periods of poor growth (at least one standard deviation below the mean). These

[12] The GEE with AR1 error specification models allow for the fact that errors might be temporally correlated within countries.

Table 2 Covariates of electoral volatility in Latin America, GEE(AR1) estimator

	Presidential elections				Lower chamber elections			
	Model 1 Total volatility	Model 2 Extra-system volatility	Model 3 Within-system volatility	T test for difference in coefficient	Model 4 Total volatility	Model 5 Extra-system volatility	Model 6 Within-system volatility	T test for difference in coefficient
Ideological polarization	−1.063 (1.292)	0.094 (0.996)	−1.463* (0.725)	1.264	−2.816** (0.950)	0.095 (0.561)	−2.917*** (0.649)	3.511***
Concurrent elections	−2.510 (6.009)	−5.886 (5.301)	1.317 (2.931)	−1.189	−1.118 (2.508)	1.268 (1.517)	−2.144 (1.367)	1.671
Presidential runoff	4.386 (4.239)	2.115 (2.951)	−0.497 (3.395)	0.581	9.454** (3.023)	2.754 (1.681)	6.547** (2.270)	−1.343
Term length	0.423 (1.271)	−0.212 (1.667)	−0.667 (1.852)	0.183	2.235** (0.692)	1.552* (0.701)	0.529 (0.719)	1.019
Effective number of parties	1.879* (0.919)	−0.208 (0.928)	2.908*** (0.748)	−2.614**	0.380 (0.603)	−0.149 (0.311)	0.726 (0.450)	−1.600
Birth year of democracy (ln) (cohort effects)	3.148 (6.056)	−1.507 (4.477)	4.145 (4.761)	−0.865	4.840 (3.445)	3.696 (2.378)	1.192 (2.126)	0.785
Age of democracy (ln) (age effects)	0.701 (3.252)	2.281 (1.699)	−1.163 (2.818)	1.047	−1.723 (1.917)	0.128 (1.074)	−0.769 (1.939)	0.405
Per capita GDP (ln)	3.515 (3.959)	4.644 (2.402)	−1.960 (3.305)	1.616	2.102 (2.234)	1.653 (1.679)	−0.060 (1.224)	0.824
GDP growth	−1.516** (0.519)	−2.125*** (0.662)	0.606 (0.655)	−2.933**	−0.863** (0.288)	−0.388 (0.234)	−0.603* (0.283)	0.585
Inflation (ln)	0.776 (1.341)	0.534 (1.249)	0.177 (0.994)	0.224	−0.508 (0.861)	−0.159 (0.421)	−0.155 (0.786)	−0.004
Indigenous population (%)	0.576** (0.170)	0.428* (0.175)	0.175 (0.139)	1.132	0.550*** (0.093)	0.155* (0.064)	0.377*** (0.074)	−2.269*
Constant	−19.791 (39.886)	−24.532 (26.151)	18.502 (28.501)		−12.006 (28.616)	−29.976 (20.329)	18.429 (15.296)	

Table 2 (continued)

	Presidential elections				Lower chamber elections			
	Model 1 Total volatility	Model 2 Extra-system volatility	Model 3 Within-system volatility	T test for difference in coefficient	Model 4 Total volatility	Model 5 Extra-system volatility	Model 6 Within-system volatility	T test for difference in coefficient
Observations	144	144	144		191	191	191	
Number of regimes	23	23	23		24	24	24	

Notes: Robust standard errors are given in parentheses

$^{*}p \leq 0.05$. $^{**}p \leq 0.01$. $^{***}p \leq 0.001$

results are consistent with Park's (2019) evidence against the hypothesis of asymmetrical appraisal.

As expected, in both presidential and lower chamber elections, polarization is associated with lower within-system volatility, and it has no correlation with the electoral success of new parties. Polarized systems create steep ideological tradeoffs for voters and seem to anchor them for or against the established parties, thus helping to stabilize within-system volatility. However, polarization does not deter voter defections to new contenders.

Other results in Table 2 add to the evidence that it is useful to distinguish between electoral volatility that represents transfers to new parties and aggregate shifts among established parties. The coefficient for ENP differs statistically between extra- and within-system volatility in presidential elections. A higher ENP is associated with greater within-system volatility but has no association with extra-system volatility. We leave it to future researchers to explore why this is the case; deductively, it seems likely that a more open party system would facilitate the rise of new parties. Different processes drive aggregate electoral shifts toward new and established parties.

Party Identification and Perception of Corruption

Table 3 shows the regression results when we add Party ID and Perception of Corruption as covariates. The number of regimes drops to 18 and the number of electoral periods declines to 75 for presidential elections and 89 for lower chamber elections because of the limited time series for both new variables. Columns 4 and 8 summarize whether the differences in coefficients for extra- and within system volatility are statistically significant.

The results for Party ID support Green et al. (2002), Lupu (2016), Seawright (2012), and others who see the underpinning of system-level stability as coming from voters' attachments to parties. The statistical and substantive association between aggregate partisanship and extra-system volatility is strong in both presidential and lower chamber elections (H5), indicating that partisanship serves as a bulwark against new parties. This is consistent with Lupu's argument that sharp declines in partisanship are a major factor in party collapse and with Seawright's argument that they are central to *system* collapse. In lower chamber elections, partisanship also reduces within-system volatility.

The results for corruption largely support theoretical expectations. In lower chamber elections, a perception of pervasive corruption is associated with high extra-system volatility (H4), consistent with Seawright's argument about party system collapse. It is also associated with high within-system volatility, suggesting that corruption leads large numbers of voters to change preferences toward both new parties and alternative established organizations. In presidential elections, a perception of less corruption is associated with lower total volatility. The coefficients for both extra- and within-system volatility are negative, as expected, but not significant.

Table 3 GEE (AR1) models with party ID and perception of corruption

	Presidential elections				Lower chamber elections			
	Model 1 Total volatility	Model 2 Extra-system volatility	Model 3 Within-system volatility	T test for difference in coefficient	Model 4 Total volatility	Model 5 Extra-system volatility	Model 6 Within-system volatility	T test for difference in coefficient
Ideological polarization	1.086 (1.726)	−1.435 (1.511)	2.404 (1.455)	−1.830	−0.634 (0.897)	0.530 (0.326)	−1.002 (0.965)	1.504
Concurrent elections	1.107 (5.140)	−9.622* (4.891)	11.237* (5.359)	−2.875**	0.191 (3.026)	1.567 (1.208)	−0.885 (2.791)	0.806
Presidential runoff	−2.992 (8.654)	−1.752 (5.618)	−2.054 (6.937)	0.034	4.414 (3.496)	3.604* (1.659)	1.629 (2.830)	0.602
Term length	−1.088 (2.662)	2.601 (3.247)	−4.283 (3.307)	1.485	2.014 (1.789)	3.676*** (0.854)	−1.765 (1.757)	2.785**
Effective number of parties	1.799 (1.147)	−0.648 (1.095)	2.475*** (0.657)	−2.446*	0.223 (0.915)	−0.312 (0.408)	0.595 (0.602)	−1.247
Birth year of democracy (ln) (cohort effects)	14.514 (7.493)	20.857 (13.938)	3.564 (11.983)	0.941	20.643** (7.656)	14.894*** (3.079)	8.145 (6.462)	0.943
Age of democracy (ln) (age effects)	1.061 (5.104)	−2.991 (4.301)	−2.612 (5.025)	−0.057	−4.046 (3.765)	−5.482*** (1.465)	−0.462 (3.361)	−1.369
Per capita GDP (ln)	10.386 (7.429)	2.827 (5.970)	5.612 (4.504)	−0.372	3.705 (3.472)	3.928** (1.418)	−0.557 (3.118)	1.309
GDP growth	−1.498* (0.625)	−3.431*** (1.051)	1.917* (0.903)	−3.860***	−0.563 (0.429)	−0.956 (0.592)	0.258 (0.398)	−1.702
Inflation (ln)	0.197 (2.465)	3.083 (2.746)	−3.739*** (1.170)	2.286*	−0.867 (0.939)	−0.806 (0.779)	0.067 (0.986)	−0.695
Indigenous population (%)	0.550* (0.234)	0.320 (0.206)	0.128 (0.184)	0.695	0.425*** (0.109)	0.104* (0.052)	0.328*** (0.101)	−1.972*
Party ID	−0.330* (0.147)	−0.509*** (0.159)	−0.003 (0.099)	−2.702**	−0.262* (0.103)	−0.129* (0.053)	−0.168* (0.073)	0.432

Table 3 (continued)

	Presidential elections				Lower chamber elections			
	Model 1 Total volatility	Model 2 Extra-system volatility	Model 3 Within-system volatility	T test for difference in coefficient	Model 4 Total volatility	Model 5 Extra-system volatility	Model 6 Within-system volatility	T test for difference in coefficient
Control of corruption	−10.637* (4.463)	−3.777 (3.992)	−6.889 (3.919)	0.556	−8.020*** (2.478)	−5.351*** (1.273)	−3.950* (1.910)	−0.610
Constant	−109.024 (76.445)	−51.925 (68.721)	−41.876 (61.204)		−71.606 (41.815)	−75.919*** (17.664)	4.377 (34.468)	
Observations	75	75	75		89	89	89	
Number of regimes	18	18	18		18	18	18	

Notes: Robust standard errors are given in parentheses

$^*p \leq 0.05$. $^{**}p \leq 0.01$. $^{***}p \leq 0.001$

Robustness Checks

We conducted sensitivity analyses to check the robustness of results in Tables 2 and 3. Although the GEE (AR1) and PCSE models (On-line Appendix 6) are the most appropriate given the structure of the data, we also estimate our models with a random effects (RE) estimator[13] with AR (1) to check how robust our findings to different TSCS estimators. On-line Appendices 6 and 7 show that most of the coefficients remain stable compared to Table 2, as do the significance levels.

We also follow Lago and Torcal (2019) and estimate multilevel models on our three-level data. On-line Appendix 8 shows the results of the three-level model that is estimated by using restricted maximum likelihood estimation (REML). The results are largely consistent with those in Table 2.

Third, to ensure that our findings are not driven by unusual observations, we conducted diagnostic tests using predicted studentized residuals, Cook's (1977) distance measure, and DFITS (Belsley et al., 1980) for observations with strong influence on the regression line to identify outliers. We drop these outliers and re-estimate the GEE (AR1) models. The list of influential outliers and the re-estimated results in On-line Appendix 9 are consistent with those reported in Table 2 with very minor exceptions. The findings do not generally depend on atypical observations.

On-line Appendices 10 to 14 repeat the robustness checks with the smaller number of electoral periods that include control of corruption and partisanship. Results are generally consistent with those in Table 3.

Conclusions

The paper has contributed in two ways to the literatures on electoral volatility and party system stability. First, we have presented one of the most extensive datasets on electoral volatility. The dataset can enable other scholars to track volatility, extra-system volatility, and within-system volatility for both presidential and lower chamber elections in Latin America over a long time. The detailed coding rules and documentation about specific coding decisions generate transparency and easy replicability, and they facilitate building cumulative empirical knowledge.

Second, the paper contributes to the understanding of differences between extra- and within-system volatility. Different processes drive extra-system and within-system volatility. In presidential elections, poor economic growth is correlated with increased extra-system volatility but has no association with within-system volatility. We hypothesized that higher aggregate party ID would be associated with lower extra-system volatility, and we showed that this is the case. Building on work on the effects of corruption on voter perceptions of politicians and parties (Pavão 2018; Seawright 2012; Vidal 2018), we also hypothesized that high perceived corruption

[13] The random effects model assumes that unobserved country-specific effects are not correlated with independent variables and control variables. This assumption is violated in most panel data involving countries (Wilson and Butler 2007).

would be associated with higher extra-system volatility. The empirical findings largely support this hypothesis. Conversely, a more fragmented party system and greater polarization are associated with higher within-system volatility but have no association with extra-system volatility. When voters contemplate opting for a new party, they are not deterred by low fragmentation or by high polarization.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s12116-021-09340-x.

Acknowledgements Fernando Bizzarro, Frances Hagopian, Matthew Singer, and two anonymous reviewers offered very helpful comments. We thank María Victoria De Negri for research assistance and comments. The Taiwan Ministry of Science and Technology (grant number: 104-2410-H-004-002-MY2) supported the work of Yen-Pin Su on this paper.

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