July 29, 2021

Online Appendices

Electoral Volatility in Latin America, 1932-2018

Scott Mainwaring and Yen-Pin Su

Cite this article:
Mainwaring, Scott, and Yen-Pin Su. 2021. "Electoral Volatility in Latin America, 1932-2018." *Studies in Comparative International Development*.
https://doi.org/10.1007/s12116-021-09340-x

Online Appendix 1
Rules for Coding Electoral Volatility and New Parties in Presidential Elections

General Principles

We coded only the first round of presidential elections because it gives a better idea of patterns of aggregate electoral change and stability. We coded so that the estimates of volatility are conservative; when there was a solid reason to code an organization as a continuity from a previous one, we did so.

We coded primarily according to the party of the presidential candidate. In most situations, we gave 100% of a coalition's vote to the party of the presidential candidate because there is no good way to divide a presidential candidate's votes among the different parties that supported her. As an exception, we counted the six coalitions that ran together on at least two consecutive occasions as a continuity even if the presidential candidate did not always come from the same party. For example, the Chilean Concertación ran together in every presidential election from 1989 to 2013. Although it fielded three presidential candidates from the Christian Democrats (1989, 1993, 2009) and three from the Socialists (1999, 2005, 2013), we count it as the same electoral force. Otherwise, it would overstate electoral discontinuity and instability.

We show electoral continuities when the underlying reality gives reason to do so. We regarded thirty-three parties or coalitions as continuities from an earlier entity with a different name. For example, we treated Mexico's Partido de la Revolución Democrática (PRD) as the continuation of the Frente Democrático Nacional, Cuauhtémoc Cárdenas's electoral vehicle in 1988. We considered the Partido de la U (2010) as a continuity of Primero Colombia (2002-06), which Alvaro Uribe created in his successful bids for the presidency. To avoid overstating electoral discontinuities, we treated five independents with a well-known affiliation to a party as representing that party rather than as new entrants. Although there are many cases of very high volatility, this is a product of real changes in the party landscape, not of coding rules.

Specific Coding Rules

1. Except in cases in which two or more parties run together in at least two consecutive elections, we attribute 100% of the coalition's vote share to the presidential candidate's party and count the coalition partners as winning 0% of the vote.

2. Exception to Rule 1: In some cases, we don't know the candidate's party, or the candidate has no party, or the candidate is a member of a party that is not part of the coalition, or the candidate is the coalition candidate without an affiliation to any of the parties. In these cases, for calculating volatility from T_1 to T_2, we usually attribute the coalition votes in T_2 to the largest party of the coalition at T_1.

3. In cases in which we could not identify the candidate's party, if the candidate has formed the coalition as a new personalistic electoral vehicle, or if this situation occurs in the founding election of **a new competitive regime**, or if all of the parties that make up the coalition are new (or the lesser splinters from another party), or if there is no clear antecedent party, we treat the coalition as a new entity.

Stable coalitions (at least two consecutive elections)

Coding rules for coalitions are more nettlesome than those for volatility in lower chamber elections. Usually, if there are interparty coalitions for assembly elections, the electoral authorities report a separate vote for each of the constituent parties of the coalition. Coalitions usually require no special attention; one allocates the coalition's votes to its member parties. In contrast, there is no good way to disaggregate the votes for a presidential candidate into the various parties that supported his/her candidacy.

4. As long as the presidential candidate of a coalition comes from the same party, we consistently attribute the votes to that party. These one-party led coalitions that have lasted at least two consecutive elections have been common; there are 72 cases in the dataset including thirteen in the Dominican Republic and ten in Brazil. Examples include the Unidad Nacional in Peru (2001-06), both times led by the PPC; the PRSC-led coalitions in the Dominican Republic from 1978 on; the PT-led coalitions in Brazil since 2002; and the PSDB-led coalitions in Brazil since 1994.

5. If parties A and B (and other parties) form a coalition for at least two consecutive elections and the candidate does not always come from the same party, for the time of their partnership, we treat them as one entity, thus registering the stability of the coalition. The Chilean Concertación from 1989 on is an example, as is the Chilean conservative coalition during most of the post-1989 period (except in 2005, when the RN and UDI ran competing candidates).

Surprisingly, in the entire dataset, there were only six cases in which a coalition lasted for at least two consecutive and in which the candidate came from different parties. Stable coalitions in which more than one party is capable of generating the presidential candidate have been uncommon.

6. Except for the founding election of a new competitive regime, the last election before a democratic breakdown, and the last election in the dataset, every election corresponds to two different electoral periods—first, as the second election in a period, and then as the first in the next period. Sometimes different rules apply for the same coalition in the second election of the first electoral period compared to the first election of the next electoral period.

New coalitions, party mergers, and coalitions that splinter

General principle: We treat new coalitions, the dissolution of coalitions, party splits, and party mergers as a partial continuity rather than a complete change or a

complete continuity. If two parties merge or form a new coalition, the party system changes, but the merger or coalition has not created a new party. If a new coalition emerges and its votes are not attributable to specific parties within the coalition, we treat the new coalition as a partial continuity from the parties that formed it.

7. If two parties that each ran separate candidates in one election (T_1) form a coalition or merge for the next (T_2), to calculate volatility from T_1 to T_2, we designate 100% of the coalition's vote share in T_2 to the party of the presidential candidate and 0% to the other coalition members. For example, after fielding its own candidate in 1989, the Brazilian PFL supported the PSDB candidate in 1994 and 1998. We treat the PFL as getting 0% in 1994.

Likewise, if two parties that each ran separate candidates in one election (T_1) merge for the next (T_2), to calculate volatility from T_1 to T_2, we consider the coalition as the sequel to the party that ran the presidential candidate in T_2. We count the other party as winning 0% at T_2.

8. Coalitions that splinter after two or more elections. Following the same logic as in Rule 7 immediately above, if A and B (or more parties) run together N consecutive times (at least twice) and then splinter at T_{N+1}, for calculating volatility from T_N to T_{N+1}, we give 100% of the vote share in T_N to the party of the presidential candidate in that election.

Likewise, if a party splits, at least one new party emerges, but one party continues its existence. We calculate volatility in the same way that we do for a coalition that splinters, i.e., linking the pre-split party in the first election to the largest post-split party in the second election.

9. Multiparty coalitions that partially splinter. (Rule 9 is necessary only if Rule 4 does not apply; that is, if the presidential candidate does not always come from the same party.)

a) A, B, and C form a coalition in T_N, where A or B field the presidential candidate and C supports the coalition (but runs no candidate). Then, in T_{N+1}, C supports a different coalition. For calculating volatility from T_N to T_{N+1}, we count the A+B coalition as being intact, thus receiving 100% of the vote share in T_{N+1}.

b) A, B, and C form a coalition in T_1, where C runs the presidential candidate. Then, in T_2, C runs on its own or with different partners. For calculating volatility from T_1 to T_2, we count C as receiving 100% of the coalition's vote share in T_1.

Other Rules

10. If a formally independent candidate had a close affiliation to a party, we treated the candidate as coming from the party. For example, we counted Jorge Alessandri in Chile (1958 and 1970), who was formally independent but was closely linked to the Liberal and Conservative parties in 1958 and to the Partido Nacional in 1970, as the candidate of those parties. It would overstate discontinuity on the Chilean right (and hence exaggerate electoral volatility) to treat Alessandri as a new entrant in 1958 or in 1970.

11. For changes of party names, when there was reasonable continuity from one election to the next, we coded the new label as if it were the same organization. There were 33 such cases, most of which are clear cut. For example, we treated Mexico's Partido de la Revolución Democrática (PRD) as the continuation of the Frente Democrático Nacional, Cuauhtémoc Cárdenas's electoral vehicle in 1988. We considered

the Partido de la U (2010) as a continuity of Primero Colombia (2002-06), which Alvaro Uribe created in his successful bids for the presidency.

12. If an independent candidate had the backing of several parties at T2, we treat that candidate as the successor to the largest of those parties at T1 or as a new entry, depending on how different/new the coalition is relative to coalitions in the previous election.

13. Party schisms: If a party splits from one election (T_1) to the next (T_2), to calculate volatility from T_1 to T_2, we compare the party with the higher vote share at T_2 with the pre-schism party at T_1. We count the smaller party at T_2 as winning 0%.

14. If minor candidates were grouped together in the original data source as "others," we treated them as one party. In almost all cases, however, we were able to treat them as separate candidates.

15. For one minor candidate in Argentina, the electoral authorities reported a separate vote for each party that formed a coalition to support a presidential candidate. Unless such a coalition lasted for at least two consecutive elections, we allocate the entire vote for the coalition to the party that won the largest vote share.

16. Vote pooling. If the electoral system pools votes of multiple candidates of the same party, we allocate all those votes to the party. Examples: Uruguay (the Ley de Lemas), Honduras.

Coding Rules for New Parties in Presidential Elections

For a presidential 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 its presidential candidate comes from a new party.

1) If we are not able to identify the candidate's party, if the candidate is an independent, or he comes from a party that does not take part in the coalition:

a) if the coalition had run before, we treat it as established.

b) if this is a first-time coalition and the largest party in the previous election is established, we treat the coalition as established. Example: Argentina 2007, Una Nación Avanzada coalition. In Peru, we treat Alianza por el Gran Cambio in 2011 as established. Although Pedro Pablo Kuczinski was an independent, the largest party in his coalition, the PPC, was established.

2) We treat independent candidates who are not formally supported by a coalition or a party as new entries the first time they run.

Online Appendix 2
Coding Rules for Electoral Volatility and New Parties: Lower Chamber Elections

Party mergers and schisms and the formation and dissolution of electoral coalitions alter the membership of a party system. These changes should be reflected but not overstated when we track electoral volatility and extra-system volatility. Our coding rules are intended to achieve these objectives.

Splits and mergers

1. When a party splits into two or more parties from one election (T_1) to the next (T_2), we regard the party that kept the original name as the continuation of the original party. If no post-schism organization kept the name of the original party, we regarded the largest post-schism organization as the continuation of the original party and treated the smaller splinter party as if it did not exist in T_1.

2. When two or more parties merged and created a new organization, we calculated volatility using the original party with the highest percentage in T_1 as the same party as the new one in T_2. We coded the party with fewer votes in T_1 as disappearing in election T_2.

This method of coding splits and mergers recognizes both an important continuity (the ongoing existence of at least one party) and a change in the system (the split or merger). With splits and mergers, some established organizations and elites continue to exist, so treating them as entirely new or as completely different entities inflates change in the party system. On the other hand, we do not aggregate individual parties' vote shares to create the comparison with the previous or next election; doing so neglects meaningful change (Casal Bértoa 2017: 148). Our estimates of volatility and the vote share of new parties are lower than they would be if we counted changes of names and all changes in coalitions as new contenders. Conversely, our estimates of volatility are higher than if we compared the vote share of a party at T with the parties' combined vote shares at T+1 in the case of a party split at T+1.

Coalitions

3. Where possible, we disaggregate electoral coalitions into the parties that constitute them. This is possible, for example, in Brazil and Chile, where vote totals are recorded for the individual parties. If the electoral authorities do not tabulate separate vote totals for the individual parties, then we treat the coalition as if it were a party.

Coalition formation

4. With previously established parties: When two or more parties, at least one of which ran previously, ran in a coalition, we compared the coalition's percentage in election T_1 with the percentage in T_0 of the largest party that formed that T_1 coalition.

5. If none of the coalition partners ran in the elections at T_0, but at least one did prior to T_0, we treat the T_1 coalition as the successor to the largest member of the coalition that ran in the most recent election. This allows us to look at the vote share of parties running before a founding election and treat a coalition in a new regime as the continuation of a party in a previous democratic regime.

6. If the coalition remained intact for more than one election, we give the coalition vote share in all following elections to the same party to which we gave the votes for the first election.

7. If one member of this coalition had run in a coalition in T_0 that gained a larger vote share than a party running on its own in T_0, we allocate the vote share in T_1, to whichever party or coalition was larger in T_0. One or some of the parties in the T_1, coalition might have run in a coalition at T_0, so its vote share in T_0 could be hidden in the spreadsheet. For example, Perú 2011: Gana Perú was a coalition of the Partido Nacionalista Peruano (PNP), Partido Socialista, and other small parties. The PS was the only party among these that ran on its own in 2006. But the PNP (Ollanta Humala´s party), which ran in the 2006 elections with UPP, was much larger in 2006 (as a coalition) than the PS. The UPP ticket (UPP +PNP) won 21% in 2006, while the PS only won 1.25%. So the Gana Perú votes (2011) go to PNP.

There might be rare cases in which a judgment call is necessary if a coalition at T_0 wins only a marginally higher vote share than a party. If in the above Peruvian example of 2006-11, the PS had won 20.9% in 2006 and the UPP coalition had won 21%, we would allocate the 2011 coalition total to the PS rather than the PNP. Restated: if it seems highly likely that at T_0,, Party X, which ran on its own, won more votes than the largest party in coalition Y, which won more votes than Party X, we would allocate the votes in T_0, to Party X. (We are not aware of any such cases.) The default is always to allocate these votes to whichever (Party X or Coalition Y) won more votes at T_0,.

> *Exception to Rule 7*: If the members of a coalition in T_0 make up more than one coalition in T_1, we treat the coalition that wins the largest vote share in T_1 as the continuation of the T_0 coalition. For the other (smaller) coalition(s) at T_1 that were part of the T_0 coalition, we follow Rule 4.
>
> Example: Rule 7 indicates that we would normally treat Alianza Unidad (1996) in Nicaragua as the continuation of UNO (1990) because the PSD (one of the members of the Alianza Unidad) was part of UNO in 1990. However, because the Alianza Liberal (1996) coalition won a vastly higher vote share than the Alianza Unidad, we treat the former as the continuity of UNO. Following Rule 4, we treat Alianza Unidad as the continuation of the PSC because in 1990 it was the larger of the two parties (not counting the PSD) that formed the Alianza Unidad in 1996.

8. If a party (call it Partido M) runs on its own in T1, becomes part of a coalition in T2, and then splits from the coalition in T3, if the coalition has at least one common member from T2 to T3, and if the coalition wins more votes at T3 than Partido M, then following Rule 7, we treat the coalition at T3 as the continuity of the coalition at T2. We enter a new row in the Excel file for Partido M at T3 but do not treat it as a new party. However, for the purposes of calculating electoral volatility, we compare its vote share at T3 with

0% at T2.

Example: Nicaragua 1984-96. In 1990 a big coalition called UNO won 53.9% of the vote. The largest member of UNO in 1984 (the previous election) was PLI, so we treat the UNO votes (1990) as a continuity with PLI. UNO dissolved before the 1996 elections, so this calls for Rule 11 below. In 1996, a new coalition, Alianza Liberal (AL) formed. The parties in AL were PL, PLC, PLN and PLIUN. In 1990, the first two were part of UNO, PLN was new, and PLIUN got .25% running on its own. Because AL 1996 included two parties (PL and PLC) that had been part of UNO 1990, and because AL 1996 was much larger than the PLI (0.73% of the vote), we treat AL 1996 as the successor to UNO 1990. We give PLI 1996 a new row but do not treat it as a new party.

9. If some parties in a coalition are new and some are established: If the established parties had run only in coalitions or in subnational elections (hence, they are hidden in the spreadsheet), we give the vote share to the party taking part in the largest coalition running in the previous election. Example from Peru 2001: Solución Popular was a coalition between Movimiento Vamos Vecino and Con Fuerza Perú. The former had run since 1998 on its own at the municipal level and in coalition at the national level. The latter was a new party, created for these elections. We give the votes to Vamos Vecino because it took part in a coalition that ran in previous elections.

10. If no party of a new coalition had ever run before, we treat the coalition as a new party.

Coalition dissolution

11. When a coalition dissolved from one election to the next, we compared its coalition total in election T_1 with the percentage of the largest party that formed that coalition in T_2.

12. If one member of the T_1 coalition that dissolved at T_2 ran in a different coalition in T_2 that gained a larger vote share than a party (also previously a member of the coalition at T_1) running on its own, we allocate the vote share in T_2, to whichever party or coalition was larger in T_2. It might be the case that one or some of the parties in the T_1 coalition run in a coalition at T_2, so their vote share in T_2 is hidden in the spreadsheet.

13. In some cases, the members of a coalition at T_1 took part in different coalitions at T_2. In such cases, for the smaller T_2 coalition(s), we follow the logic of Rule 7. Example: In 2006 in Nicaragua, the PCN ran in coalition with other parties. This coalition dissolved after the elections. Two members of the coalition took part in the 2011 coalition led by the FSLN, which won 60% of the vote. Because the FSLN won a larger vote share in 2006 than the PCN coalition, we treat the FSLN and its allies in 2011 as a continuation of the FLSN in 2006 (Rule 4). Therefore, we treat the PCN coalition as ending in 2006 and in 2011 we apply Rule 7: The PCN formed a coalition with PLC and PIMCA. Because PLC was the largest of these three parties in 2006 (with 1,356,513 votes), we give the PCN-PLC-PIMCA votes to PLC.

14. If none of the parties ran on their own or in a different coalition in T_2, then we treat the parties as disappearing at T_2.

15. In some cases, Rules 4-10 (coalition formation) and 11-14 (coalition dissolution) conflict. In such cases, we resolve the conflict by entering the data for election results twice (i.e., in two different columns). Rule 4 applies for coalition formation from electoral period T_1 to T_2,. Rule 11 applies for coalition dissolution from electoral period T_2 to T_3. Example: Bolivia 1979-1980 and 1980-85: In 1979 and 1980 there was the UDP coalition. In 1979, by Rule 4, we gave the votes to PCB, the largest in 1966 (36%) of the 1979 UDP. In 1980, by Rule 6, we again give the votes to PCB (38.7%). Then, before the 1985 elections, the coalition dissolved. In 1985, the member of the ex-UDP with the largest vote share was MIR (10.2%), while the PCB runs on its own and gained 2.5%. We added a second column for vote share in 1980. In the first column we gave the coalition votes to PCB (by Rule 6) and in the second column we gave the coalition votes to MIR (by Rule 11). This way, we calculated 1980-85 volatility with the second column for 1980, and 1980-79 volatility with the first column.

Miscellaneous

16. When a party changed its name but had an obvious continuity with a previous party, we counted them as being the same organization.
17. Independents: We usually treated independents as a category because we lacked the data needed for comparing individuals' results from one election to the next.
18. "Others": If minor parties were grouped together in the original data source as "others," we treated them as one party. Where possible, however, we treated them as separate parties.
19. When organizations with different names run separately, we treat them as separate parties. In some cases, two or more different organizations claimed to be the true branch of a party and ran on separate electoral tickets. Following this rule, we treat them as separate organizations. The Colombian Liberal and Conservative parties are exceptions to this rule. These parties ran many separate lists, but the separate lists were clearly parts of the same party.
19a. We do not add the votes of another party or coalition to Party A's or Coalition B's vote share; rather, we treat them as separate entities.
20. We do not distinguish between political outsiders who create their own party to run and establishment politicians who splinter from an old party to create a new one. For some purposes, a distinction between political outsiders and established politicians could be useful, but for our operationalization it makes no difference. Even if it is created by an established politician, the new party still represents a new challenge to existing parties.
21. We do not include the first election of a new competitive regime in the calculation of extra-system volatility (i.e., by comparing results of this founding election to those from the last election of the previous competitive regime in the same country).

Hybrid electoral systems

22. For the six countries that use two different electoral systems (usually mixed proportional systems) for the lower chamber, we calculated a combined weighted volatility score if the both parts of the electoral system were used to allocate seats. To calculate this score, we determined volatility for each electoral system, multiplied these scores by the percentage of seats allocated under each system, and added the two scores.

For Mexico, we used the combined weighted volatility score with the exception of 1988, when we used the PR results because the data were not available for the single member districts. For Ecuador, we used results for deputies elected from provincial districts until 2002, after which all members of the chamber were elected in a single country-wide constituency. To calculate volatility for Ecuador for 1998-2002, we used results for legislators elected in the single country-wide constituency. Venezuela used a mixed system in the 1993 and 1998 elections. We were unable to calculate a combined weighted volatility score because we could obtain only the party list results for 1998.

New parties

25. We consider a party new if it meets 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. Example: Convergencia Democrática (CODE)-País Posible in Peru ran for the first time at the national level in 1995. Although it had participated in the 1993 municipal elections, because these took place after the penultimate congressional elections (in 1990), we treat it as a new party.

26. We recorded the data for new parties beginning with the second election after the inauguration of a new competitive regime. The reason is that in the founding election of a new competitive regime, most parties might be new, especially after a long dictatorship. The data for new parties in a founding election therefore do not indicate the fluidity of the party system in the same way that subsequent elections do.

27. If a party ran in an earlier coalition but we gave the vote share to another member of the earlier coalition, it still counts as an established party (that is, we still count it as having run in the earlier presidential or national congressional election).

28. For mixed systems, we used a weighted score to calculate the percentage of new parties. We multiplied the percentage of votes that a new party received in the first electoral system by the percentage of seats allocated in that system and added this number to the percentage of votes that a new party received in the second electoral system times the percentage of seats allocated in that system.

Coding Rules for Argentine Lower Chamber Elections, 2001-2017

Beginning in 2001, the Argentine party system underwent a process of tremendous denationalization. Many district level parties compete in only one province, and many coalitions compete in only one or a few provinces. See, for example, what the Ministry of the Interior says about the 2001 election: http://mininterior.gov.ar/asuntospoliticos/pdf/HistoriaElectoralArgentina.pdf (page 173)).

As a result, there is no clear way of a) assigning votes to specific parties even at the provincial level and b) therefore of aggregating to the national level. For this reason, beginning with the 2001 elections, we code volatility based on the number of seats won

by political parties. This was possible because in most cases we were able to identify the party to which each elected deputy belonged, even if they ran under a coalition label. When we could identify the party, the normal rules for coding electoral volatility, new parties, and party exits applied (i.e., the rules applied to code the rest of the countries and Argentina 1946-51 and 1983-99).

However, in some cases coalitions ("*alianzas y confederaciones*") form blocs in the lower chamber as soon as the deputies take office, and the sources usually identify the bloc, and not the party, of the new deputies. In these cases, we apply the following rules:

> a) if this is a stable coalition (i.e., it has run in the previous election or runs again in the following election), we treat the coalition as a party and give it all seats won under its ticket (i.e., when, for example, 3 deputies win seats running in a coalition ballot, even though some of these deputies may be known members of a party, we allocate those 3 seats to the coalition). More often than not, these coalitions become a bloc when the new congress is inaugurated, to which the new deputies belong.
>
> b) if this is a one-time coalition, we look for the party to which the deputy was affiliated and allocate his/her seat to that party.
>
> > (b.1) If we cannot find such a party and the deputy appears to be the a coalition candidate, we allocate this seat to the largest party of that coalition in the previous election.
> >
> > (b.1.1) If all parties in the coalition are new, then we treat it as a new entity.

Excluded Electoral Periods

We dropped the following lower chamber electoral periods because detailed electoral data were not available: Costa Rica 1938-1940, 1940-1942, 1942-1944, and 1944-1946; Ecuador 1954-1956, 1956-1958, 1958-1960, and 1960-1962; Guatemala 1944-1950; and Peru 1939-1945.

Although V-Dem classified the Colombian presidential elections of 1958-70 as "somewhat free and fair," we excluded them on the grounds that they were not competitive enough to include. Electoral competition from 1958 to 1970 was very restricted for the presidency. In 1958 and 1962, the winners won by landslide margins, capturing over 80% of the vote. In 1966, all of the candidates were from the Liberal Party, and in 1970, they were all from the Conservative Party. In all four elections, the winner was decided before votes were cast; the two parties agreed to rotate in office. Congressional elections had some of the same restrictions, but both parties regularly put forth ample slates of candidates, so we include the lower chamber elections from this period.

Online Appendix 3
Descriptive Statistics, Presidential elections

Note: The descriptive statistics throughout the text are based on the full dataset. The descriptive statistics in this appendix are for the regression dataset. Some electoral periods dropped out because of missing information for some covariates in early elections. Short-lived regimes with only two elections also dropped out because the AR (1) models require at least two electoral periods (three elections) after the inauguration of democracy.

Variable	Number of Observations	Mean	Standard Deviation	Minimum	Maximum
Total volatility	144	34.46	19.33	1.30	99.37
Extra-system volatility	144	12.23	17.56	0	99.29
Within-system volatility	144	22.23	16.83	0	61.80
Ideological polarization	144	4.07	1.27	1.18	8.12
Concurrent elections	144	0.80	0.40	0	1
Presidential runoff	144	0.67	0.47	0	1
Term Length	144	4.47	0.84	1	6
Effective number of parties	144	4.53	2.26	1.68	13.80
Birth year of democracy (ln)	144	3.72	0.31	3.37	4.45
Age of democracy (ln)	144	2.86	0.69	1.39	4.17
Per capita GDP (ln)	144	8.39	0.65	7.04	9.65
GDP growth	144	1.70	2.26	-5.98	7.56
Inflation (ln)	144	2.38	1.33	0	7.21
Indigenous population (%)	144	9.36	12.40	0	41.52
Party ID	80	39.32	16.43	11.35	77.8
Control for Corruption	82	-0.28	0.70	-1.34	1.58

Online Appendix 4
Descriptive Statistics, Lower chamber elections

Variable	Number of Observations	Mean	Standard Deviation	Minimum	Maximum
Total volatility	191	24.45	14.73	0.55	86.50
Extra-system volatility	191	6.64	8.32	0	41.38
Within-system volatility	191	17.83	12.45	0.55	86.50
Ideological polarization	191	4.14	1.39	0.37	7.80
Concurrent elections	191	0.64	0.48	0	1
Presidential runoff	191	0.63	0.48	0	1
Term Length	191	3.73	1.08	1	6
Effective number of parties	191	4.46	2.32	1.68	13.80
Birth year of democracy (ln)	191	3.78	0.35	3.33	4.45
Age of democracy (ln)	191	2.79	0.79	0	4.23
Per capita GDP (ln)	191	8.40	0.63	7.04	9.65
GDP growth	191	1.65	2.47	-8.71	8.09
Inflation (ln)	191	2.46	1.40	0	7.86
Indigenous population (%)	191	8.77	11.75	0	41.52
Party ID	91	38.49	15.73	11.40	77.80
Control for Corruption	97	-0.29	0.68	-1.34	1.59

Online Appendix 5
Presidential Elections with Incumbent President Running for Reelection

Incumbent presidents have many policy instruments and state resources to build political networks and sway electoral outcomes. For this reason, Carreras (2012) found that when incumbent presidents run for reelection in Latin America, outsiders tend to be less successful. His evidence suggests that presidential incumbents should be associated with lower extra-system and total volatility in presidential elections. The high electoral success rate of incumbents reinforces the expectation that they would be associated with lower extra-system and total volatility. The results below add the presidential incumbent variable to the other covariates shown in Table 2. 1=a presidential incumbent running for reelection; 0 = no presidential incumbent. Against initial expectations, the variable for incumbent presidents is not statistically significant in any of the three models.

GEE Models with AR (1)
Presidential Elections with Presidential Incumbent Running for Reelection

	Presidential elections			
	Model 1 Total volatility	Model 2 Extra-system volatility	Model 3 Within-system volatility	T test for difference in coefficient
Incumbent President Running Reelection	-3.178 (4.831)	-1.948 (3.234)	1.858 (4.776)	-0.660
Ideological polarization	-1.060 (1.325)	0.067 (1.003)	-1.460* (0.714)	1.240
Concurrent elections	-2.188 (6.118)	-6.020 (5.399)	1.389 (2.881)	-1.211
Presidential runoff	4.784 (4.336)	2.215 (3.001)	-0.621 (3.421)	0.623
Term Length	0.395 (1.244)	-0.285 (1.670)	-0.546 (1.867)	0.104
Effective number of parties	1.858* (0.886)	-0.189 (0.917)	2.889*** (0.726)	-2.632**
Birth year of democracy (ln) (cohort effects)	2.796 (6.180)	-1.888 (4.549)	4.431 (5.065)	-0.928
Age of democracy (ln) (age effects)	1.064 (3.468)	2.466 (1.886)	-1.307 (2.814)	1.114
Per capita GDP (ln)	3.573 (4.003)	4.693 (2.446)	-2.024 (3.311)	1.632

GDP growth	-1.461** (0.497)	-2.113*** (0.645)	0.602 (0.653)	-2.958**
Inflation (ln)	1.047 (1.476)	0.644 (1.275)	0.066 (1.124)	0.340
Indigenous population (%)	0.570*** (0.166)	0.426* (0.172)	0.178 (0.137)	1.128
Constant	-20.483 (39.865)	-23.681 (26.247)	17.943 (28.617)	
Observations	144	144	144	
Number of regimes	23	23	23	

Notes: Robust standard errors are given in parentheses.
*p≤ 0.05. **p≤ 0.01.***p≤ 0.001.

Appendix 6
Models with Panel-Corrected Standard Errors with AR (1) with the same covariates as in Table 2

	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	-1.162 (1.523)	-0.173 (0.880)	-1.332 (1.331)	0.726	-2.838** (1.063)	0.098 (0.586)	-2.901** (1.059)	2.478*
Concurrent elections	-2.891 (4.983)	-5.946 (4.379)	1.551 (3.792)	-1.294	-0.985 (1.873)	1.265 (1.173)	-2.055 (1.755)	1.573
Presidential runoff	3.946 (4.213)	2.463 (3.811)	-0.344 (3.479)	0.544	9.463*** (2.464)	2.772 (1.471)	6.560** (2.079)	-1.487
Term Length	0.286 (1.507)	0.883 (1.580)	-0.990 (1.343)	0.903	2.242** (0.768)	1.568* (0.667)	0.629 (0.793)	0.906
Effective number of parties	2.017** (0.750)	-0.421 (0.605)	2.920*** (0.648)	-3.769***	0.433 (0.430)	-0.161 (0.307)	0.669 (0.372)	-1.721
Birth year of democracy (ln) (cohort effects)	2.952 (6.338)	-2.339 (4.048)	4.530 (4.134)	-1.187	4.854 (3.154)	3.689* (1.844)	1.134 (2.694)	0.783
Age of democracy (ln) (age effects)	0.785 (2.263)	2.598 (2.025)	-1.352 (1.802)	1.457	-1.134 (1.949)	0.111 (0.990)	-0.493 (1.498)	0.336
Per capita GDP (ln)	3.343 (3.436)	4.546 (2.514)	-1.844 (2.817)	1.692	1.917 (1.956)	1.675 (1.573)	0.0004 (1.952)	0.668
GDP growth	-1.510** (0.486)	-2.007** (0.683)	0.554 (0.535)	-2.952**	-0.900** (0.327)	-0.381 (0.219)	-0.597 (0.321)	0.556
Inflation (ln)	0.746 (1.004)	0.480 (1.578)	0.196 (1.291)	0.139	-0.358 (0.693)	-0.157 (0.462)	-0.066 (0.637)	-0.115
Indigenous population (%)	0.581*** (0.167)	0.423*** (0.112)	0.174 (0.089)	1.741	0.541*** (0.087)	0.155** (0.660)	0.375*** (0.068)	-0.332
Constant	-16.961 (40.820)	-24.554 (30.620)	17.315 (24.337)		-12.773 (23.433)	-30.130 (17.997)	16.798 (21.294)	
Observations	144	144	144		191	191	191	
Number of regimes	23	23	23		24	24	24	
R-squared	0.250	0.164	0.177		0.361	0.126	0.278	

Notes: Robust standard errors are given in parentheses.
*p≤ 0.05. **p≤ 0.01.***p≤ 0.001.

Appendix 7
Random Effects Models with AR (1) with the same covariates as in Table 2

	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	-1.090 (1.480)	-0.055 (1.192)	-1.158 (1.252)	0.638	-2.855** (0.968)	-0.057 (0.577)	-2.896** (0.913)	2.629**
Concurrent elections	-1.259 (4.918)	-5.284 (4.021)	1.859 (4.078)	-1.247	-1.131 (1.893)	1.416 (1.432)	-2.304 (1.824)	1.604
Presidential runoff	4.037 (4.385)	2.553 (3.384)	-0.156 (3.565)	0.551	9.401*** (2.799)	2.868 (1.678)	6.518* (2.644)	-1.166
Term Length	0.307 (1.917)	-0.161 (1.764)	-1.385 (1.780)	0.488	2.264* (0.956)	1.645* (0.645)	0.348 (0.912)	1.161
Effective number of parties	2.086* (0.852)	-0.172 (0.708)	2.937*** (0.745)	-3.025**	0.418 (0.514)	-0.118 (0.330)	0.832 (0.493)	-1.601
Birth year of democracy (ln) (cohort effects)	3.919 (7.083)	-1.396 (5.254)	5.037 (5.433)	-0.851	4.815 (3.963)	3.726 (2.370)	1.318 (3.699)	0.548
Age of democracy (ln) (age effects)	1.021 (2.828)	2.366 (2.412)	-1.584 (2.590)	1.116	-1.422 (1.619)	0.100 (0.986)	-1.267 (1.559)	0.741
Per capita GDP (ln)	2.719 (3.628)	4.245 (2.745)	-1.701 (2.887)	1.493	1.911 (2.304)	1.568 (1.370)	-0.108 (2.171)	0.653
GDP growth	-1.487* (0.649)	-2.081** (0.679)	0.498 (0.652)	-2.740**	-0.866* (0.339)	-0.370 (0.253)	-0.608 (0.328)	0.575
Inflation (ln)	0.627 (1.286)	0.502 (1.149)	0.219 (1.216)	0.169	-0.427 (0.799)	-0.145 (0.496)	-0.310 (0.772)	0.180
Indigenous population (%)	0.584*** (0.184)	0.420** (0.135)	0.173 (0.142)	1.261	0.548*** (0.120)	0.161* (0.071)	0.381*** (0.113)	-1.649
Constant	-18.016 (42.217)	-22.404 (31.222)	15.644 (32.790)		-11.514 (27.662)	-29.607 (16.404)	20.505 (26.105)	
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≤ 0.05. **p≤ 0.01.***p≤ 0.001.

Appendix 8
Multi-level Models with the same covariates as in Table 2

	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
Time-invariant variables								
Concurrent elections	0.916 (4.978)	-6.777 (4.061)	2.280 (3.616)	-1.666	-1.269 (1.991)	0.985 (1.391)	-3.743* (1.702)	2.151*
Presidential runoff	0.847 (5.250)	5.077 (4.326)	-6.185 (3.874)	1.939	10.582*** (3.011)	3.367 (1.846)	8.626*** (2.130)	-1.866
Term Length	-0.329 (1.874)	0.251 (1.711)	-0.760 (1.543)	0.439	2.409** (0.909)	1.612** (0.601)	0.639 (0.724)	1.034
Birth year of democracy (ln) (cohort effects)	3.422 (7.402)	-1.273 (5.246)	3.324 (4.676)	-0.654	7.650* (3.785)	4.717* (2.204)	2.324 (2.494)	0.719
Indigenous population (%)	0.631*** (0.193)	0.408** (0.132)	0.240* (0.118)	0.949	0.502*** (0.110)	0.118 (0.065)	0.324*** (0.071)	-2.140*
Cross-National variables (group mean)								
Age of democracy (ln) (age effects)	5.593 (6.526)	-0.471 (5.430)	5.154 (4.808)	-0.776	-0.867 (3.593)	0.222 (2.240)	-3.174 (2.559)	0.999
Ideological polarization	-2.693 (2.157)	-0.494 (1.485)	-1.626 (1.325)	0.569	-3.735*** (1.155)	-0.349 (0.671)	-3.435*** (0.749)	3.069**
Per capita GDP (ln)	0.965 (4.193)	5.721* (2.920)	-4.093 (2.621)	2.501*	1.533 (2.348)	1.040 (1.363)	0.933 (1.538)	0.052
GDP growth	-0.519 (2.321)	-4.428** (1.637)	3.510* (1.461)	-3.618***	-4.221** (1.463)	-2.390** (0.887)	-2.547** (0.981)	0.119
Effective number of parties	2.946* (1.369)	-0.310 (0.934)	3.500*** (0.838)	-3.036**	0.803 (0.801)	0.370 (0.454)	0.554 (0.539)	-0.261
Inflation (ln)	2.148 (3.651)	-1.839 (2.748)	4.051 (2.440)	-1.603	-2.558 (2.307)	-2.426 (1.423)	-0.840 (1.547)	-0.755
Longitudinal variables (demeaned term)								
Age of democracy (ln) (age effects)	2.013 (3.384)	5.364 (3.612)	-4.442 (3.302)	2.004*	0.209 (1.763)	-0.035 (1.217)	0.093 (1.704)	-0.061
Ideological polarization	2.314 (1.893)	-1.332 (2.060)	3.495 (1.869)	-1.735	-3.488** (1.358)	-1.094 (0.981)	-2.717* (1.301)	0.996
Per capita GDP (ln)	-5.691 (8.930)	-5.867 (9.575)	2.864 (8.761)	-0.673	-0.013 (5.431)	2.239 (3.724)	-2.392 (5.223)	0.722
GDP growth	-1.636* (0.810)	-1.426 (0.844)	-0.202 (0.815)	-1.043	-0.464 (0.472)	-0.183 (0.260)	-0.274 (0.473)	0.169
Effective number of parties	2.366* (1.062)	-0.153 (1.120)	2.450* (1.063)	-1.686	1.265 (0.657)	-0.064 (0.394)	1.089 (0.651)	-1.515
Inflation (ln)	-0.490 (1.335)	1.326 (1.418)	-2.078 (1.319)	1.758	-0.022 (0.787)	0.054 (0.506)	-0.272 (0.762)	0.356
Constant	-14.933 (50.303)	-17.385 (35.266)	7.516 (31.432)		-9.406 (28.474)	-20.721 (17.146)	19.482 (19.250)	
Level-3 random variance (regime intercept)	7.349 (1.886)	0.409 (12.383)	0.000 (—)		3.875 (1.129)	1.528 (0.972)	0.000 (—)	
Level-2 random variance (electoral period intercept)	2.943 (0.934)	2.595 (1.045)	3.199 (0.726)		2.480 (0.570)	0.000 (0.000)	2.705 (0.453)	
Level-1 random	11.647	13.627	11.062		7.376	7.272	6.426	

variance (residual)	(1.782)	(1.591)	(1.443)		(1.360)	(0.400)	(1.173)	
Log-likelihood	-596.748	-598.159	-584.395		-723.215	-653.453	-708.115	
Wald-Chi^2	46.34	37.51	57.64		110.55	41.49	116.15	
Prob> Chi^2	0.001	0.003	0.001		0.001	0.001	0.001	
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≤ 0.05. **p≤ 0.01.***p≤ 0.001.

Because the number of level-2 units and the number of observations are limited, estimating multilevel models might produce problematic results. Still, we estimate multilevel models as a robustness check. Our models fail to converge if we specify the cov(unstructured) option for our Stata xtmixed models, which allows all variances and covariances to be distinctly estimated. Moreover, our models fail to converge unless we set a maximum number of iterations. Therefore, we set equal variances for random effects and set all covariances at zero by specifying the cov(identity) option for our models, and we set the maximum number of iterations to 500.

Appendix 9
GEE (AR1) models with outliers dropped from the sample

We checked the studentized residuals to identify outliers. We also employed tests for Cook's distance measure and DFITS for observations with strong influence on the regression line, i.e., with high discrepancy (an unusual value in the dependent variable) and high leverage (an unusual value in the independent variable). Because the influential observations affect both the intercept and slope of the regression, dropping them might alter the statistical results. The following models include the same covariates as in Table 2. The outliers with strong influences for presidential elections are:
Total volatility: Argentina (1999-2003); Colombia (1970-1974); Costa Rica (1953-1958); Venezuela (1993-1998)
Extra-system volatility: Argentina (1999-2003); Peru (1985-1990); Venezuela (1993-1998)
Within-system volatility: Brazil (1989-1994); Colombia (1970-1974); Nicaragua (1984-1990); Peru (2000-2001)

The outliers with strong influences for lower chamber elections are:
Total volatility: Argentina (2007-2009), Bolivia (2002-2005), Costa Rica (1949-1953), Ecuador (2006-2009), Peru (1990-1995), Venezuela (2000-2005), Venezuela (2005-2010)
Extra-system volatility: Colombia (1990-1991), El Salvador (1991-1994), Venezuela (1958-1963), Venezuela (1963-1968), Venezuela (1993-1998), Paraguay (1998-2003)
Within-system volatility: Argentina (2007-2009), Bolivia (2002-2005), Costa Rica (1949-1953), Mexico (2015-2018), Nicaragua (1984-1990), Venezuela (2005-2010)

	Presidential elections				Lower chamber elections			
	Model 19 Total volatility	Model 20 Extra-system volatility	Model 21 Within-system volatility	T test for difference in coefficient	Model 22 Total volatility	Model 23 Extra-system volatility	Model 24 Within-system volatility	T test for difference in coefficient
Party ideological polarization	-1.691 (1.080)	0.155 (0.991)	-1.138 (0.708)	1.062	-2.437** (0.837)	0.035 (0.499)	-2.345*** (0.583)	3.101**
Concurrent elections	-0.829 (4.738)	-3.292 (5.207)	1.173 (2.826)	-0.754	-0.501 (2.090)	0.633 (1.471)	-2.247* (1.020)	1.609
Presidential Runoff	4.325 (4.175)	2.870 (1.996)	-2.306 (3.405)	1.311	8.427*** (2.325)	3.956** (1.301)	5.582*** (1.594)	-0.790
Term length	0.101 (1.020)	-0.031 (1.560)	0.119 (1.881)	-0.061	2.433*** (0.625)	1.197*** (0.376)	0.653 (0.632)	0.740
Effective number of parties	2.131* (0.965)	0.034 (0.859)	3.344*** (0.610)	-3.142**	0.515 (0.633)	-0.011 (0.272)	0.765 (0.456)	-1.461
Birth year of democracy (ln) (cohort effects)	-0.534 (5.687)	-1.470 (3.893)	6.364 (4.481)	-1.320	3.875 (2.990)	3.092* (1.469)	0.639 (1.671)	1.103
Age of democracy (ln) (age effects)	2.934 (2.521)	1.375 (1.315)	0.880 (2.471)	0.177	-1.322 (1.386)	0.481 (0.828)	-0.183 (1.120)	0.477
Per capita GDP (ln)	2.197 (3.841)	1.968 (2.137)	-3.026 (3.357)	1.255	1.942 (1.996)	0.704 (1.040)	-0.018 (1.166)	0.462
GDP growth	-1.437*	-1.175*	0.652 (0.601)	-2.400*	-0.933***	-0.214 (0.156)	-0.467*	0.988

	(0.605)	(0.467)			(0.275)		(0.203)	
Inflation (ln)	0.951 (0.901)	-0.470 (0.809)	-1.374 (0.870)	0.761	-0.436 (0.594)	0.050 (0.384)	-0.020 (0.539)	0.106
Indigenous population	0.580*** (0.163)	0.340* (0.172)	0.193 (0.143)	0.657	0.504*** (0.082)	0.173*** (0.050)	0.361*** (0.057)	-2.479*
Constant	-1.701 (37.215)	-4.138 (23.336)	10.117 (27.972)		-11.771 (24.812)	-21.902 (12.029)	14.660 (13.402)	
Observations	140	141	140		184	185	185	
Number of regimes	23	23	23		24	24	24	

Notes: Robust standard errors are given in parentheses.
*p≤ 0.05. **p≤ 0.01.***p≤ 0.001.

Appendix 10
GEE Models with AR (1)
Presidential Elections with Presidential Incumbent Running for Reelection, Party ID, and Control of Corruption

	Presidential elections			
	Model 1 Total volatility	Model 2 Extra-system volatility	Model 3 Within-system volatility	T test for difference in coefficient
Incumbent President Running Reelection	-12.460** (4.348)	-11.786*** (3.681)	-3.780 (3.051)	-1.675
Ideological polarization	0.556 (1.655)	-1.410 (1.482)	2.307 (1.501)	-1.762
Concurrent elections	-0.633 (4.795)	-11.006* (5.26)	10.696* (5.305)	-2.905**
Presidential runoff	-1.703 (7.949)	-0.428 (5.168)	-1.676 (6.857)	0.145
Term Length	-0.956 (2.221)	1.809 (3.037)	-4.285 (3.333)	1.351
Effective number of parties	1.614 (1.004)	-0.656 (0.879)	2.438*** (0.679)	-2.786**
Birth year of democracy (ln) (cohort effects)	15.228* (7.648)	20.892 (13.709)	3.523 (11.914)	0.956
Age of democracy (ln) (age effects)	-0.004 (4.840)	-4.007 (3.938)	-2.766 (5.004)	-0.195
Per capita GDP (ln)	10.132 (7.180)	3.861 (5.849)	5.597 (4.403)	-0.237
GDP growth	-1.035 (0.555)	-2.828** (1.042)	2.050* (0.874)	-3.587***
Inflation (ln)	0.913 (2.310)	4.175 (2.555)	-3.441** (1.248)	2.678**
Indigenous population (%)	0.491* (0.224)	0.289 (0.186)	0.112 (0.194)	0.659
Party identification	-0.455** (0.151)	-0.591*** (0.166)	-0.038 (0.112)	-2.762**
Control of corruption	-11.826** (4.075)	-5.773 (3.685)	-7.243 (3.894)	0.274

Constant	-98.127 (73.766)	-52.374 (66.424)	-38.994 (61.386)	
Observations	75	75	75	
Number of regimes	18	18	18	

Notes: Robust standard errors are given in parentheses.
*p≤ 0.05. **p≤ 0.01.***p≤ 0.001.

Appendix 11
Models with Panel-Corrected Standard Errors with AR (1) with Party ID and Control 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	0.497 (1.998)	-1.380 (1.668)	2.108 (1.429)	-1.588	-0.525 (1.116)	0.521 (0.697)	-0.991 (1.218)	1.077
Concurrent elections	1.237 (5.474)	-9.804 (6.174)	11.307* (5.122)	-2.632**	2.054 (2.945)	1.892 (1.401)	0.294 (2.592)	0.542
Presidential runoff	-3.008 (6.177)	-1.352 (5.642)	-1.877 (4.834)	0.071	6.033* (2.691)	3.782 (2.528)	2.577 (3.181)	0.297
Term Length	-0.462 (2.697)	3.066 (2.889)	-4.184 (2.832)	1.792	2.382 (1.434)	3.606*** (1.047)	-1.461 (1.596)	2.655**
Effective number of parties	1.596 (0.901)	-0.653 (0.852)	2.355* (0.954)	-2.352*	-0.189 (0.653)	-0.262 (0.390)	0.296 (0.661)	-0.727
Birth year of democracy (ln) (cohort effects)	17.941 (15.327)	16.673 (15.285)	3.193 (14.551)	0.639	22.957** (8.407)	13.981* (5.873)	8.462 (9.421)	0.497
Age of democracy (ln) (age effects)	-0.880 (6.809)	-0.078 (7.017)	-2.200 (7.797)	0.202	-5.721 (4.335)	-5.227 (3.007)	-0.825 (4.915)	-0.764
Per capita GDP (ln)	9.793 (5.645)	3.749 (4.840)	5.431 (3.949)	-0.269	4.969* (2.515)	3.938 (2.326)	0.436 (3.232)	0.879
GDP growth	-1.433* (0.630)	-3.409*** (0.703)	1.914** (0.673)	-5.470***	-0.274 (0.539)	-0.971** (0.355)	0.518 (0.565)	-2.231*
Inflation (ln)	-0.740 (2.927)	3.374 (2.470)	-4.027 (2.459)	2.123*	-0.483 (1.499)	-0.909 (0.791)	0.279 (1.599)	-0.666
Indigenous population (%)	0.521** (0.178)	0.363* (0.154)	0.132 (0.102)	1.251	0.434*** (0.118)	0.104 (0.081)	0.334** (0.110)	-1.684
Party identification	-0.377* (0.163)	-0.431* (0.186)	0.011 (0.112)	-2.036*	-0.287** (0.102)	-0.114 (0.074)	-0.163 (0.102)	0.389
Control of corruption	-10.810** (3.412)	-3.951 (3.657)	-6.600* (2.990)	0.561	-9.325*** (2.138)	-5.297*** (1.462)	-4.347 (2.400)	-0.338
Constant	-105.644 (77.607)	-60.659 (76.977)	-38.828 (57.451)		-88.509* (39.875)	-74.233* (34.450)	-6.810 (48.290)	
Observations	75	75	75		89	89	89	

Number of regimes	18	18	18		18	18	18	
R-squared	0.480	0.435	0.331		0.519	0.362	0.336	

Notes: Robust standard errors are given in parentheses.
*p≤ 0.05. **p≤ 0.01.***p≤ 0.001.

Appendix 12
Random Effects Models with AR (1) with Party ID and Control 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	1.085 (1.889)	-1.369 (1.857)	2.066 (1.721)	-1.357	-0.546 (1.067)	0.527 (0.745)	-1.016 (1.189)	1.100
Concurrent elections	1.854 (7.120)	-9.859 (6.784)	11.261 (6.348)	-2.273*	1.591 (3.002)	1.578 (2.247)	-0.956 (2.949)	0.683
Presidential runoff	-2.932 (7.102)	-1.307 (6.738)	-1.873 (6.368)	0.061	5.705 (3.954)	3.508 (2.782)	1.397 (4.320)	0.411
Term Length	-0.765 (3.459)	3.189 (3.559)	-4.112 (3.229)	1.519	2.322 (1.569)	3.707*** (1.124)	-1.980 (1.668)	2.827**
Effective number of parties	1.938 (1.09)	-0.657 (1.092)	2.342* (1.013)	-2.013*	-0.118 (0.627)	-0.355 (0.449)	0.673 (0.661)	-1.287
Birth year of democracy (ln) (cohort effects)	16.143 (16.261)	16.004 (16.161)	3.198 (15.029)	0.580	22.563* (9.001)	14.318* (6.419)	7.665 (9.672)	0.573
Age of democracy (ln) (age effects)	0.650 (8.166)	0.421 (8.625)	-2.247 (7.912)	0.228	-5.380 (5.119)	-4.995 (3.673)	-0.154 (5.402)	-0.741
Per capita GDP (ln)	10.257 (6.268)	3.946 (6.191)	5.482 (5.730)	-0.182	4.739 (3.723)	4.268 (2.672)	-0.855 (3.940)	1.076
GDP growth	-1.529 (0.876)	-3.402*** (0.966)	1.926* (0.829)	-4.186***	-0.324 (0.506)	-0.872* (0.398)	0.305 (0.465)	-1.923
Inflation (ln)	-0.0004 (2.614)	3.418 (2.726)	-4.051 (2.474)	2.029*	-0.542 (1.477)	-0.893 (1.075)	0.135 (1.524)	-0.551
Indigenous population (%)	0.551* (0.221)	0.372 (0.206)	0.132 (0.196)	0.844	0.434*** (0.118)	0.102 (0.082)	0.333* (0.131)	-1.495
Party identification	-0.318 (0.191)	-0.418* (0.201)	0.011 (0.181)	-1.586	-0.282* (0.122)	-0.115 (0.090)	-0.157 (0.121)	0.279
Control of corruption	-11.145* (5.153)	-4.025 (4.9127)	-6.645 (4.601)	0.389	-9.117** (2.923)	-5.135* (2.091)	-3.883 (3.118)	-0.334
Constant	-115.370 (80.785)	-62.850 (79.042)	-39.167 (73.698)		-85.605 (45.556)	-78.727* (32.602)	7.593 (48.519)	
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≤ 0.05. **p≤ 0.01.***p≤ 0.001.

Appendix 13
Multi-level Models with Party ID and Control 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
Time-invariant variables								
Concurrent elections	13.937* (6.524)	-7.764 (7.371)	22.648*** (5.811)	-3.24**	4.833 (2.733)	4.482* (2.074)	0.045 (2.671)	1.312
Presidential runoff	17.046 (12.635)	-3.679 (14.215)	19.163 (11.043)	-1.269	12.97* (6.123)	1.687 (4.673)	11.905* (5.991)	-1.345
Term Length	2.210 (3.109)	2.714 (3.446)	-0.772 (2.657)	0.801	2.462 (1.394)	4.634*** (1.068)	-2.063 (1.357)	3.878***
Birth year of democracy (ln) (cohort effects)	42.198* (21.296)	11.804 (24.102)	31.690 (19.391)	-0.643	44.650*** (9.523)	12.050 (7.497)	32.712*** (9.088)	-1.754
Indigenous population (%)	0.130 (0.195)	0.210 (0.219)	-0.115 (0.168)	1.177	0.571*** (0.104)	0.081 (0.080)	0.543*** (0.101)	-3.508***
Cross-National variables (group mean)								
Age of democracy (ln) (age effects)	-45.674* (21.648)	4.237 (24.396)	-48.880* (19.347)	1.706	-30.128*** (9.120)	-2.315 (7.005)	-27.233** (8.88)	2.203*
Ideological polarization	-0.176 (1.981)	-1.299 (2.210)	2.112 (1.716)	-1.219	1.955 (1.419)	2.106 (1.104)	0.255 (1.363)	1.055
Per capita GDP (ln)	14.373* (7.290)	0.842 (8.291)	13.691* (6.621)	-1.211	15.698*** (4.140)	5.544 (3.182)	11.286** (4.022)	-1.120
GDP growth	8.841* (3.711)	-1.604 (4.207)	12.833*** (3.356)	-2.683**	8.091** (2.857)	0.912 (2.203)	7.508** (2.766)	-1.865
Effective number of parties	-2.861 (1.557)	-1.258 (1.889)	-1.844 (1.595)	0.237	-2.122* (0.909)	-1.245 (0.715)	-0.682 (0.866)	-0.501
Inflation (ln)	0.729 (6.231)	4.393 (7.070)	-0.436 (5.679)	0.533	4.384 (3.884)	0.390 (2.999)	4.457 (3.765)	-0.845
Party identification	-1.004*** (0.305)	-0.750* (0.349)	-0.368 (0.278)	-0.856	-0.396* (0.195)	-0.293 (0.152)	-0.027 (0.188)	-1.100
Control of corruption	-26.573*** (7.338)	-2.359 (8.275)	-25.998*** (6.573)	2.237*	-22.982*** (3.834)	-7.216* (2.949)	-16.714*** (3.727)	1.998*
Longitudinal variables (demeaned term)								
Age of democracy (ln) (age effects)	14.372 (9.718)	22.624* (10.890)	-7.360 (8.530)	2.168*	-9.860 (5.727)	-1.599 (4.441)	-8.623 (5.538)	0.989
Ideological polarization	7.066* (2.902)	-1.798 (3.288)	9.847*** (2.627)	-2.767**	9.879*** (2.700)	0.954 (2.070)	9.897*** (2.628)	-2.673**
Per capita GDP (ln)	-17.831 (14.744)	-30.080 (16.648)	8.119 (13.162)	-1.800	-5.013 (8.821)	6.159 (6.863)	-9.842 (8.492)	1.465
GDP growth	-2.225** (0.808)	-3.496*** (1.074)	0.883 (1.008)	-2.973**	-0.738 (0.607)	-1.274* (0.509)	0.419 (0.544)	-2.273*
Effective number of parties	1.564 (1.148)	-1.135 (1.372)	2.989* (1.189)	-2.272*	-0.437 (0.760)	-0.027 (0.627)	-0.221 (0.695)	0.207
Inflation (ln)	3.338 (2.561)	2.371 (2.916)	1.532 (2.379)	0.223	-1.143 (1.315)	-0.320 (1.034)	-0.740 (1.256)	0.258

Party identification	-0.231 (0.201)	-0.114 (0.228)	-0.076 (0.182)	-0.130	-0.272* (0.121)	0.008 (0.093)	-0.290* (0.117)	1.994*
Control for corruption	-19.375 (10.294)	-5.720 (11.590)	-7.974 (8.981)	0.154	-13.879* (5.624)	-2.850 (4.341)	-13.769* (5.416)	1.573
Constant	-117.080 (102.023)	-22.614 (114.313)	-111.640 (89.731)		-224.228*** (51.072)	-96.426* (39.498)	-148.247** (49.366)	
Level-3 random variance (regime intercept)	0.000 (—)	0.000 (0.009)	0.000 (—)		0.000 (0.000)	0.000 (0.000)	0.000 (—)	
Level-2 random variance (electoral period intercept)	0.000 (0.000)	2.107 (1.762)	3.046 (0.976)		1.948 (0.563)	1.851 (0.474)	1.510 (0.529)	
Level-1 random variance (residual)	11.973 (0.978)	12.242 (2.430)	7.446 (2.316)		5.911 (1.217)	3.870 (1.242)	6.333 (0.990)	
Log-likelihood	-292.619	-302.245	-285.894		-331.309	-289.659	-307.505	
Wald-Chi^2	138.2	69.46	83.77		207.14	83.88	118.3	
Prob> Chi^2	0.000	0.000	0.000		0.000	0.000	0.000	
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≤ 0.05. **p≤ 0.01.***p≤ 0.001.

Because the number of level-2 units and the number of observations are limited, estimating multilevel models might produce problematic results. Still, we estimate multilevel models as a robustness check. Our models fail to converge if we specify the cov(unstructured) option for our Stata xtmixed models, which allows all variances and covariances to be distinctly estimated. Moreover, our models fail to converge unless we set a maximum number of iterations. Therefore, we set equal variances for random effects and set all covariances at zero by specifying the cov(identity) option for our models, and we set the maximum number of iterations to 500.

Online Appendix 14
GEE (AR1) models with outliers dropped from the sample, with Party ID and Control of Corruption

	Presidential elections				Lower chamber elections			
	Total volatility	Extra-system volatility	Within-system volatility	T test for difference in coefficient	Total volatility	Extra-system volatility	Within-system volatility	T test for difference in coefficient
Party ideological polarization	0.156 (1.345)	-0.950 (1.109)	1.987 (1.026)	-1.944	-0.627 (0.794)	0.794*** (0.247)	-2.254*** (0.637)	4.461***
Concurrent elections	3.989 (4.879)	-2.447 (4.435)	14.248*** (4.304)	-2.701**	4.137* (1.99)	2.092 (1.180)	2.515 (1.393)	-0.232
Presidential Runoff	2.791 (6.642)	3.836 (3.558)	-0.156 (5.513)	0.608	7.162** (2.369)	3.285* (1.469)	3.070 (2.502)	0.0741
Term length	0.166 (1.906)	3.542 (2.770)	-3.501 (2.995)	1.726	3.451** (1.253)	2.146** (0.835)	-3.398*** (0.924)	4.452***
Effective number of parties	1.101 (0.953)	0.903 (1.220)	0.503 (0.674)	0.287	-0.822 (0.749)	-0.368 (0.320)	0.330 (0.522)	-1.14
Birth year of democracy (ln) (cohort effects)	14.737 (7.713)	-3.310 (12.887)	17.568 (11.046)	-1.23	24.605*** (5.401)	9.929** (3.197)	6.528 (5.394)	0.542
Age of democracy (ln) (age effects)	-1.831 (4.014)	8.525 (4.877)	-12.128** (4.365)	3.155**	-9.058*** (2.709)	-2.895 (1.806)	-1.499 (2.822)	-0.417
Per capita GDP (ln)	11.337 (5.803)	-1.173 (2.801)	9.735** (3.384)	-2.483*	7.257** (2.599)	4.209** (1.557)	-1.234 (3.363)	1.469
GDP growth	-1.342* (0.671)	-2.491** (0.899)	2.870*** (0.783)	-4.497***	-0.807 (0.472)	-0.075 (0.165)	1.069*** (0.269)	-3.625***
Inflation (ln)	-2.662 (2.106)	1.272 (1.982)	-5.199*** (1.454)	2.632**	-1.229 (0.985)	-0.949* (0.478)	-0.739 (1.037)	-0.184
Indigenous population	0.544** (0.178)	0.152 (0.125)	0.250 (0.165)	-0.473	0.372*** (0.084)	0.062 (0.037)	0.261*** (0.064)	-2.692**
Party identification	-0.337* (0.143)	-0.230* (0.105)	-0.047 (0.108)	-1.215	-0.329*** (0.076)	-0.113** (0.037)	-0.143* (0.059)	0.431
Control for corruption	-11.943** (3.897)	-3.417 (3.150)	-8.215** (2.871)	1.126	-9.338*** (1.827)	-4.681*** (1.382)	-3.437 (2.139)	-0.488
Constant	-108.803 (72.425)	-1.828 (50.945)	-92.836 (48.694)		-102.445*** (31.602)	-66.730*** (19.068)	27.814 (39.385)	
Observations	71	70	71		82	82	82	
Number of regimes	17	17	18		18	17	17	

Notes: Robust standard errors are given in parentheses.
*p≤ 0.05. **p≤ 0.01.***p≤ 0.001.

These models reproduce Appendix 9 but with the smaller number of electoral periods that comes with the addition of Party ID and Control of Corruption as covariates, and with different influential outliers based on the regression results.

The outliers with strong influences for presidential elections are:
Total volatility: Mexico (2006-2012), Paraguay (2008-13), Venezuela (1993-1998)
Extra-system volatility: Argentina (1999-2003), Brazil (2014-2018), Guatemala (1999-2003), Venezuela (1993-1998)
Within-system volatility: Brazil (2014-2018), Colombia (2014-18), Mexico (2012-2018), Paraguay (2008-2013)

The outliers with strong influences for lower chamber elections are:
Total volatility: Argentina (2002-2003), Argentina (2007-2009), Bolivia (2002-2005), Colombia (1998-2002), Ecuador (2006-2009), Paraguay (1998-2003)

Extra-system volatility: Bolivia (1997-2002), Colombia (2002-2006), Guatemala (1999-2003), Paraguay (1998-2003), Venezuela (1993-1998), Venezuela (2005-2010)
Within-system volatility: Argentina (1997-1999), Bolivia (2002-2005), Ecuador (2006-2009), Uruguay (1999-2004), Venezuela (1993-1998), Venezuela (2005-2010)