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## Party Systems and Electoral Volatility in Latin America: A Test of Economic, Institutional, and Structural Explanations

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**T**hree different theoretical explanations are tested for the exceptionally high level of electoral volatility found in contemporary Latin America: economic voting, institutional characteristics of political regimes and party systems, and the structure and organization of class cleavages. A pooled cross-sectional time-series regression analysis is conducted on 58 congressional elections and 43 presidential elections in 16 Latin American countries during the 1980s and 1990s. Institutional variables have the most consistent effect on volatility, while the influence of economic performance is heavily contingent upon the type of election and whether the dependent variable is operationalized as incumbent vote change or aggregate electoral volatility. The results demonstrate that electoral volatility is a function of short-term economic perturbations, the institutional fragilities of both democratic regimes and party systems, and relatively fluid cleavage structures.

**T**he construction of strong, stable representative institutions remains one of the most formidable tasks confronted by new democratic regimes in developing countries. In Latin America, although the durability of new democratic regimes has surpassed the initial expectations of most observers (Remmer 1992–93), the instability of party systems has become a source of puzzlement and concern. Despite earlier assertions that political parties had become more institutionalized in the region (Dix 1992), there is growing evidence of upheaval or decay in party systems across much of Latin America in the 1990s (Hagopian 1998; Perelli, Picado, and Zovatto 1995). This upheaval can be seen in the virtual meltdown of the Peruvian and Venezuelan party systems, the erosion of the ruling party's dominance in Mexico, the sudden emergence of loosely structured and evanescent "flash" parties in many countries, and the eruption on the political scene of independent populist figures, often political outsiders who adopt antiparty positions (Kay 1996; O'Donnell 1994; Roberts 1995; Weyland 1996a). Where historic parties have survived, such as Chile and Argentina, they have often radically altered their traditional programs and fractured their institutional bonds with organized social constituencies. The result is a pervasive sense that political representation has become destructured or unhinged, creating a volatile situation in which political identities and organizational loyalties are recomposed from one election to the next.

This volatility, which finds clear parallels in the former Soviet bloc, poses a significant challenge to democratic governance in contemporary Latin America. Although scholars offer a variety of competing explanations for the wave of democratic transitions that have swept the globe since the mid-1970s (Remmer 1991a), they largely concur that strong party institutions are vital for the long-term stability and healthy functioning of democratic regimes. Political parties are seen as primary vehicles for integrating diverse social forces within democratic institutions, channeling and processing societal demands, regulating sociopolitical conflict, defining public policy alternatives, and holding government officials accountable to the citizenry (Mainwaring and Scully 1995; see also Diamond, Linz, and Lipset 1989; Dix 1992; Gibson 1996; Rueschemeyer, Stephens, and Stephens 1992). Likewise, strong and integrative party institutions have been identified as important actors in the political consolidation of economic reforms in emerging democracies (Haggard and Kaufman 1995). In regions such as Eastern Europe and Latin America that have experienced wrenching socioeconomic and political transformations in recent decades, political parties may play a crucial role in linking the state and society, thus buttressing the performance and legitimacy of nascent democratic regimes.

If parties perform such important political functions under democratic regimes, then the extreme level of electoral volatility that plagues Latin America merits greater scrutiny, as it is a primary indicator of failed or fragile representation. Indeed, the identification of the root causes of such fragile representation in the region's relatively longstanding party systems may provide important lessons for Eastern Europe, Africa, and Asia, where competitive party systems are often still in gestation. Nevertheless, little attention has been focused on the causes of electoral instability in Latin America.

An influential study by Remmer (1991b) demonstrated that electoral volatility and anti-incumbent voting were highly correlated with economic performance and party system fragmentation in Latin American presidential elections during the 1980s, when the

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regional debt crisis spawned a devastating combination of recession, inflation, and currency devaluation. Yet, electoral volatility has increased in Latin America in the 1990s despite a marked improvement in the economic indicators analyzed by Remmer. This anomaly suggests that other variables are likely to influence volatility, and that the relative weight of economic and political factors may vary with the degree of economic stability and thus be subject to period effects.

In a study of electoral volatility in Latin America throughout the twentieth century, Coppedge (1995) found it to be unrelated to economic performance but heavily influenced by changes in the "supply side" of the electoral marketplace caused by periodic bans, repression, and boycotts of prominent parties. Yet, such arbitrary and antidemocratic manipulations of electoral offerings have been less frequent during the current wave of democratization in the region.<sup>1</sup> What is puzzling about the contemporary period is the degree of volatility in electoral outcomes *despite* underlying continuity in the partisan options placed before the voters.

These puzzles can only be resolved by testing a range of theoretical propositions from the comparative literature on party system change and continuity. In order to develop a generalizable causal model, we examine three major theoretical approaches to the study of electoral volatility. The first is aggregate economic voting, which presumes that electoral volatility is driven by evaluations of economic performance under incumbent officeholders. The second relates electoral volatility to the stability of the broader regime institutions in which parties compete as well as to the properties of party systems themselves, namely, their degree of institutionalization, fragmentation, and ideological polarization. The third approach is structural, as it links electoral volatility to the structure of sociopolitical cleavages and their degree of organizational closure. Whereas theories of economic voting see volatility as a contingent product of relatively short-term economic perturbations, the institutional and structural explanations treat it as a persistent, deeply rooted characteristic of particular social and political formations as they have evolved historically.

Our pooled cross-sectional time-series regression analysis of presidential and legislative elections in 16 countries since 1980 reveals that electoral volatility in contemporary Latin America has been a function of three basic factors: (1) short-term economic perturbations, (2) the institutional fragility of both democratic regimes and party systems, and (3) relatively fluid cleavage structures and the limited organizational encapsulation of national electorates. Our results not only lend cross-regional reinforcement to some of the findings on the sources of electoral stability in Western Europe but also point toward an alternative model of electoral stability that challenges much of the conventional wisdom.

We demonstrate that Latin American party systems

have not been frozen by the political organization of class cleavages as in post-1920s Europe (Bartolini and Mair 1990; Lipset and Rokkan 1967). Indeed, the most stable party systems during the last two decades of economic turmoil in Latin America have been the oldest ones, that is, those with roots in nineteenth-century, preindustrial oligarchic divisions that cut across class distinctions and provided little impetus for subsequent class organization. More important, our study offers a cautionary note to those who expect electoral volatility to diminish automatically if Latin American societies stabilize their economies and consolidate democratic regimes. Electoral volatility is not a mere epiphenomenon of larger societal forces; its major sources are deeply rooted within Latin American party systems themselves and are not easily remedied by external or quick-fix solutions.

### EXPLAINING ELECTORAL VOLATILITY: THEORIES AND HYPOTHESES

Electoral volatility, or the change in vote shares obtained by individual parties in a given political system across consecutive elections, stands out in contemporary Latin America for two principal reasons. First, it has increased over the course of the region's current wave of democratic rule. Second, in comparison to Western Europe and the United States, it is exceptionally high in Latin America. A comparative glance at volatility levels illustrates the magnitude of these problems. In a voluminous study of parliamentary elections in 13 European countries between 1885 and 1985, Bartolini and Mair (1990, 68) discovered a mean aggregate volatility level of 8.6 on the Pedersen index.<sup>2</sup> Only France and Germany had average volatility levels higher than 10.

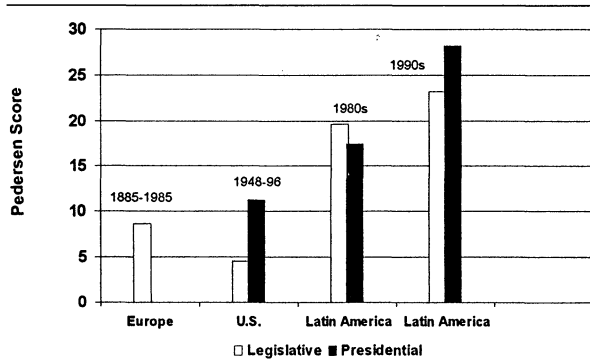
Moreover, the mean aggregate electoral volatility in Europe has varied little across decades since World War II, averaging 7.6 in the 1950s, 7.0 in the 1960s, 8.2 in the 1970s, and 8.0 in the 1980s (Gallagher, Laver, and Mair 1995, 233). Even in the turbulent interwar period, aggregate volatility levels averaged only 10.1 in Europe (Bartolini and Mair 1990, 110). In the United States, electoral volatility between 1948 and 1996 averaged 4.5 on the Pedersen index in congressional races and 11.2 in presidential contests.

By contrast, mean volatility in congressional elections in the 16 Latin American nations included in this study was 19.6 in the 1980s and 23.2 in the 1990s. Only Honduras had an average volatility score lower than 10. In Latin American presidential races, mean volatility was 17.4 in the 1980s and an astounding 28.2 in the 1990s, which underscores the turbulence of political representation in the region. Figure 1 graphs the dramatic change.

<sup>2</sup> The index (Pedersen 1983) provides a measure of net aggregate vote shifts from one election to another. It is calculated as the sum of individual party gains and losses divided by two. The index yields a scale from 0 to 100, corresponding to the net shift in voting percentages. A 0 signifies that no parties lost or gained vote (or seat) percentages, while 100 means that all the votes (or seats) went to a new set of parties. For further detail, see Appendix B.

<sup>1</sup> As explained below, our volatility data set excludes elections in which significant parties or other electoral options are blocked from participation.

**FIGURE 1. Electoral Volatility in the United States, Europe, and Latin America**



Sources: For Europe, Bartolini and Mair (1990, 68). For the United States, calculated from data provided in Pomper et al. (1997), and *Presidential Elections Since 1789* (1987). For Latin America, authors' calculations from the electoral results provided in the sources listed in Appendix B.

There is, however, substantial cross-national variance in electoral volatility in contemporary Latin America, as seen in Table 1. The fragility and fluidity of representative patterns in countries such as Peru, Ecuador, Panama, Nicaragua, and Brazil stand in stark contrast to the relative stability in Honduras, Colombia, Uruguay, Costa Rica, and Chile. It is not clear, however, what produces such divergent national patterns. Is it primarily a function of short-term factors, such as the anti-incumbent voting patterns that one expects in a context of economic hardship? Is it simply an epiphenomenon of broader institutional uncertainty in fledgling democratic regimes? Or is electoral volatility attributable to more deeply rooted and intractable institutional or structural features of particular party systems? Although idiosyncratic features of national party systems and political experiences undoubtedly

**TABLE 1. Average Pedersen Index Volatility Scores in Latin America, 1980-97**

	Legislative Elections	Presidential Elections	Average
Honduras	7.9	6.2	7.1
Colombia	10.2	9.5	9.9
Costa Rica	12.3	9.6	11.0
Uruguay	11.9	12.4	12.2
Chile	10.0	20.5	15.3
Mexico	14.8	21.3	18.1
Dominican Republic	17.5	19.4	18.5
Argentina	13.2	24.1	18.7
Venezuela	20.9	23.9	22.4
Bolivia	27.6	27.3	27.5
Paraguay	23.4	35.8	29.6
Ecuador	29.6	40.8	35.2
Panama	58.2	20.7	39.5
Brazil	27.7	60.0	43.9
Peru	53.8	40.8	47.3
Nicaragua	47.7	51.3	49.5

Source: Authors' calculations from the electoral results provided in the sources listed in Appendix B.

influence electoral volatility, a vital first step in explaining the phenomenon is to identify generalizable patterns and test theoretical propositions through pooled statistical techniques. The discussion that follows explores several of the competing theories that attempt to explain electoral volatility.

**Economic Voting**

A long tradition of comparative research assesses the effect of economic voting on electoral volatility. This approach assumes that voters punish or reward incumbent parties and officeholders for their relative success in managing the economy (Kramer 1971; Lewis-Beck 1988; Tufté 1978). Volatility is a cumulative function of individual vote shifts—presumably made in response to retrospective evaluations of economic performance—combined with the entry and exit of voters within the electoral marketplace. In the absence of survey data or panel studies, reliable inferences cannot be made about individual-level changes in voting preferences (Bartolini and Mair 1990, 27-34; Kramer 1983). Likewise, individual-level data are necessary to decipher whether preferences are shaped by prospective or retrospective calculations, or whether they reflect individual “pocketbook” or more collective sociotropic concerns (Kinder and Kiewiet 1979). Nevertheless, electoral outcomes can be used to test the effect of national economic performance on aggregate shifts in the electorate.

Researchers have uncovered substantial evidence of economic voting in the United States (Feldman 1982; Fiorina 1981; Kiewiet 1983; Markus 1988; Tufté 1978), Western Europe (Lewis-Beck 1988; Powell and Whitten 1993), East Central Europe (Pacek 1994), and Latin America in the 1980s (Remmer 1991b). The relationship between economic voting and electoral volatility, however, is complex. Although economic hardship can be expected to increase volatility by undermining established political loyalties, increasing anti-incumbent voting, and encouraging voters to support new electoral alternatives, the effect of positive economic performance is less straightforward, especially in countries with erratic growth and inflation rates. A healthy economy may reduce electoral volatility by solidifying support for the political status quo, making volatility an inverse linear function of the strength of economic performance. It is also conceivable, however, that a sharp improvement in economic performance may generate vote shifts toward incumbents. Of particular relevance for Latin America is the possibility that a president who inherits an economy beset by hyperinflation may subsequently reap electoral rewards from the effective implementation of stabilization measures. This could result in a curvilinear relationship, that is, higher levels of electoral volatility associated with either a dramatic improvement or a sharp deterioration in economic performance.

Electoral dynamics in contemporary Latin America provide evidence of this dilemma. During the crisis-ridden 1980s, all the elections in our data set evidenced

anti-incumbent vote shifts, making volatility entirely unidirectional. During the 1990s, however, when economic performance generally improved across the region, electoral volatility was bidirectional. Proincumbent vote shifts occurred in seven presidential elections and were very large in two countries, Peru in 1995 and Brazil in 1994, where incumbents had stabilized economies ravaged by hyperinflation.<sup>3</sup> In these two cases, very high volatility scores were associated with dramatic improvements in economic performance, which suggests the possibility of a curvilinear relationship. Since it is not clear whether vote shifts are equally sensitive to positive and negative economic performance, our regression models will test both linear and curvilinear variants of the economic voting hypothesis:

HYPOTHESIS 1a. *Electoral volatility varies inversely with the strength of a nation's economic performance.*

HYPOTHESIS 1b. *Electoral volatility increases in response to sharp changes in economic performance, whether positive or negative.*

### Institutional Explanations

Two types of institutional arguments are especially relevant for explaining electoral volatility in contemporary Latin America.<sup>4</sup> The first tries to determine how changes in the institutional rules, procedures, and constraints of any given democratic regime influence volatility. As Mair (1997, 8) argues, "frozen" party systems of the West European type can only emerge when full electoral mobilization has occurred and stable institutional rules exist, which permit the emergence of a durable competitive equilibrium. Consequently, Bartolini and Mair (1990) discovered that institutional modifications which lead to significant changes in voting turnout or the proportionality of representation are associated with higher levels of volatility in Western Europe.

Contemporary democratic regimes in Latin America have differed widely in the stability of their respective

institutional environments, which constitute the playing field upon which political parties compete. In many cases, electoral cycles have been punctuated by the adoption of new constitutions or large increases in electoral turnout engendered by the enfranchisement of illiterates. Also, there have been irregular changes in executive authority, such as presidential "coups" (*autogolpes*) or the forced resignation or impeachment of a president. Such forms of institutional discontinuity can alter the competitive equilibrium or modify political loyalties. We thus propose the following hypothesis:

HYPOTHESIS 2. *Electoral volatility will increase with significant changes in the institutional rules governing party competition.*

The second type of institutional argument treats electoral volatility as an endogenous effect of party systems themselves, rather than as a response to such exogenous factors as economic performance or changes in the institutional rules of the game. This approach identifies several properties of party systems that may influence the level of electoral volatility. One of these is the number of parties in the system. Studies of both Europe (Sartori 1976) and Latin America (Mainwaring and Scully 1995) have maintained that party system fragmentation is destabilizing for democratic regimes, since it is correlated with ideological polarization and tends to inhibit the construction of coherent legislative majorities.

There are both theoretical and empirical grounds to expect fragmentation to be associated with volatility in the more narrowly defined electoral arena as well. According to Pedersen's (1983, 46) spatial model of voting behavior, volatility increases in multiparty systems, since the greater the number of parties, "the smaller will be the average perceived distance between parties, and the higher the probability that the average voter will transfer his vote from one party to another party." Bartolini and Mair (1990) confirm this positive relationship between volatility and the number of parties in Western Europe, and Remmer (1991b) has shown that party system fragmentation contributes to volatility in Latin America.

Party systems also vary widely in their level of institutionalization, which Mainwaring and Scully (1995, 4) characterize as "a process by which a practice or organization becomes well established and widely known, if not universally accepted." In some Latin American countries, electoral competition continues to revolve around party institutions with historic roots in the 19th century. In others, party systems and their constituent organizations have been recomposed during the most recent wave of democratization. Such differences in organizational continuity and entrenchment are indicative of varying levels of institutionalization, and it can be expected that highly institutionalized party systems will discourage electoral volatility by closing off the electoral marketplace, narrowing the range of viable alternatives, and socializing voters to embrace established partisan identities.

A final major systemic attribute is the degree of

<sup>3</sup> In the Brazilian presidential election of 1994, we coded Fernando Henrique Cardoso as belonging to an incumbent administration. He was not a member of the party of incumbent president Itamar Franco, but he served as Franco's Minister of the Economy and was the architect of the Real Plan, which brought hyperinflation under control in the months preceding the election. Because Cardoso's landslide victory clearly reflected the voters' evaluation of his economic management and overall performance in the executive branch, we decided that an incumbent coding was appropriate.

<sup>4</sup> A third approach emphasizes the political consequences of alternative institutional designs, but there is little theoretical reason to expect this to be a decisive factor in electoral volatility in contemporary Latin America. All countries in our data set have presidential systems, and virtually all have either proportional representation (PR) electoral systems with low thresholds or mixed member plurality/PR systems that maintain the basic principle of proportionality. The partial exceptions are Chile, whose "binomial" electoral system is a variant of PR with very low-magnitude (two-seat) districts that tend to deny representation to smaller parties (Siavelis and Valenzuela 1996), and Mexico, whose combined plurality/PR system departs from strict proportionality principles. Differences in district magnitude may exert an indirect effect on volatility by influencing party system fragmentation (Coppedge 1997a), which we include as an independent variable in our regression model.

ideological polarization within the party system. This property is a function of the interplay between mass political beliefs and their institutional articulation by party organizations; that is, parties at either end of the ideological spectrum have little effect on systemic polarization unless they can garner significant electoral support. The electoral influence of polarization is less straightforward than that of the other systemic attributes, as rival hypotheses can be culled from the comparative literature. Spatial models of voting behavior suggest that the greater the policy distance between parties, the less likely it is that individuals will transfer their vote from one party to another (Bartolini and Mair 1990; Downs 1957). Under such a model, polarization should reduce electoral volatility by anchoring parties and their constituencies in highly differentiated ideological positions.<sup>5</sup>

As previously mentioned, however, polarization tends to be associated with multipartyism, which decreases the space between parties and is thus hypothesized to increase voter mobility. Furthermore, Sartori's (1976, 134–40) classic work suggests that centrifugal pressures erode support for centrist parties in polarized party systems, and the "politics of outbidding" in these systems creates a competitive disequilibrium whereby party supporters are continually lured away by the escalating promises of competitors. Either process can engender electoral volatility. Polarization also reflects high levels of social and political conflict (Scully 1992; Valenzuela 1978) as well as profound programmatic discrepancies, which can lead to disruptive shifts in public policies, political and economic performance, and electoral fortunes. Consequently, most work on the subject treats the combination of multipartyism and ideological polarization—Sartori's "polarized pluralism"—as a major source of political instability.

Although generalized instability cannot be equated with electoral volatility, the foregoing discussion suggests that the two are likely to be related. These three properties of party systems generate the following set of hypotheses:

**HYPOTHESIS 3a.** *Electoral volatility will increase with the number of parties in the party system.*

**HYPOTHESIS 3b.** *Electoral volatility will decrease with the level of institutionalization of the party system.*

**HYPOTHESIS 3c.** *Electoral volatility will increase with the level of ideological polarization in the party system.*

<sup>5</sup> Bartolini and Mair (1990, 199) differentiate between policy and ideological distance and present counterintuitive evidence that "policy competition may be inversely related to ideological opposition," since "it is the non-polarised countries which can afford to be adversarial in strictly policy positions." Consequently, their spatial model suggests that policy distance—but not ideological polarization—is negatively associated with electoral volatility in European democracies. In the Latin American context, however, we do not have adequate empirical grounds to assume that ideological polarization and policy distance are inversely related. Our analysis thus relies on the more straightforward assumption that these two phenomena are positively related.

## Cleavage Structures

The third major theoretical approach links electoral volatility to societal cleavage structures and the process by which they have been organized and politicized historically. In their seminal work, Lipset and Rokkan (1967) attributed the remarkable stability of West European party systems to their deep historical roots in generative cleavages of class, religion, and nationality, which were then institutionalized through partisan competition and the construction of mass party and labor union organizations. More recent work debates the extent to which social and economic changes have weakened the hold of these generative cleavages and encouraged greater electoral volatility.

One group of scholars (Crewe and Denver 1985; Daalder and Mair 1983; Dalton 1996; Dalton, Flanagan, and Beck 1984; Franklin et al. 1992; Inglehart 1990, 1997; Kitschelt 1994; Piven 1991) argues that major changes in political representation have occurred in Western Europe, often in association with the structural transformation of national economies and labor markets. In particular, they believe the centrality of traditional class cleavages has been undermined by the growth of white-collar service sectors, the relative decline of the industrial proletariat, the weakening of blue-collar labor unions, and the emergence of a postmaterialist dimension of political competition. Bartolini and Mair (1990) demonstrate, however, that party systems and their patterns of electoral competition can be remarkably persistent in the face of such societal changes. Indeed, they argue that the organization of social cleavages closes off the political marketplace and constrains the electoral mobility of voters, which allows parties and their cultural or political identities to outlive the structural cleavages that originally spawned them. All these authors concur that party systems are more stable when they are grounded in well-defined and well-organized societal cleavages.

Although Latin American societies are rigidly divided along class and, in some cases, ethnic lines, such cleavages have been less central to the structuring of partisan competition than they have been in Europe. In Colombia, Uruguay, and Honduras, for example, traditional oligarchic parties used vertical patron-client networks to cultivate cross-class popular support and remain electorally competitive even after the advent of mass politics in the first half of the twentieth century. In Mexico, Venezuela, Brazil, Argentina, Bolivia, and Peru, the working and lower classes were politically incorporated by broad, multiclass, ideologically diffuse populist parties rather than working class parties of the Left (Dix 1989). Only in Chile did the party system develop a class foundation and an ideological continuum that approximated those found in Western Europe.

Nevertheless, the leading comparative study of twentieth century political development in Latin America argues that the conflict between traditional elites and emerging labor movements—whether organized through populist or class-based political parties—was the central axis in the evolution of party systems and

political regimes (Collier and Collier 1991). Consequently, following the logic of the European literature, we could expect partisan competition to be most stable in those Latin American countries where it is most thoroughly structured by an underlying, organized class cleavage. This leads to the following hypothesis:

**HYPOTHESIS 4.** *Electoral volatility will vary inversely with the political salience and level of organization of class cleavages.*

## TESTING THE CAUSAL MODEL

These hypotheses are examined through a regression analysis of electoral volatility in 58 congressional elections and 43 presidential elections in 16 Latin American countries between 1980 and 1997. The criterion for case selection was at least two consecutive national elections in which no major political tendency was excluded from participation. The countries that met this criterion were Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. El Salvador and Guatemala were excluded because they did not have consecutive national elections in which the Left was allowed to compete during the period under examination. The 1984 presidential election in Panama was excluded due to massive electoral fraud.

The sample includes a number of cases in which electoral irregularities occurred or competitive conditions were not entirely fair and free. We erred on the side of inclusion for all but the most extreme cases. Otherwise, the sample size would have been seriously reduced and unacceptable levels of arbitrariness and subjectivity would have been injected into the process of case selection, given the imprecise and often politically motivated nature of assessments about electoral conditions. As any observer of Mexican politics can attest, even in a context of procedural irregularities it is generally possible to detect significant shifts in relative levels of electoral support, which is the ultimate objective of our volatility indicators. For additional information on the sample, see Appendix A.

## Dependent Variables

Researchers have extensively debated the characteristics and measures of electoral volatility (Mair 1997, 45–75). Our primary concern is with the aggregate or system-level change in party vote percentages from one election to the next. We thus chose the Pedersen index as the principal indicator of *Electoral Volatility*, as it provides a comprehensive measure of the net systemic shift in levels of party support. Information on the calculation of this measure and other variables is provided in Appendix B.

As a systemic indicator, the Pedersen index lumps together vote shifts for both incumbent and nonincumbent parties, which makes it an imprecise measure of performance-based electoral fluctuation. Since studies of economic voting generally presume that incumbents

are more likely to be held accountable for economic performance than are nonincumbents, we supplement the Pedersen index for presidential elections with an alternative volatility indicator, the *Percentage Change in Incumbent Vote* (measured as an absolute value). This provides a more direct measure of the changing level of support for incumbent executives, which is hypothesized to fluctuate with economic performance.

These two indicators are closely related ( $r = .75$ ) yet distinct, capturing different dimensions of the volatility phenomenon. It is important to note that both are unidirectional; they run from low to high volatility and thus do not tell us the direction of vote change, that is, whether it is for or against the incumbent. Incumbent vote change could be measured on a scale, with negative scores for incumbent vote losses and positive scores for incumbent vote gains, rather than by absolute values. With such a scale, volatility becomes bidirectional or U-shaped and increases with either large incumbent vote gains or heavy losses. This would be appropriate if all the independent variables are hypothesized to have a curvilinear effect upon volatility; if they are not, then it could cause statistical tests to underestimate the effect of linear causal relationships.<sup>6</sup> Consequently, when testing the curvilinear variant of the economic voting hypothesis, it is preferable to transform a bidirectional independent variable into a unidirectional measure, as explained below, rather than adopt a U-shaped dependent variable that may bias the statistical results.

## Independent Variables

To assess the linear variant of the economic voting hypothesis, our first regression model tests the effects of two economic variables: the GDP growth rate (*GDP*) and the logged rate of inflation (*Inflation*).<sup>7</sup> Both were lagged by one year and weighted by the month of the election. They thus test the linear effects of short-term economic performance on electoral vol-

<sup>6</sup> As shown below, our noneconomic independent variables are all hypothesized to have a linear relationship with volatility. That is, higher scores on certain independent variables are expected to decrease volatility (party age and union density) or increase it (institutions, fragmentation, polarization, and informal sector), whether in a pro- or anti-incumbent direction. As such, they require a dependent variable that places both pro- and anti-incumbent vote shifts on a unidirectional linear scale. An independent variable with a positive or negative linear effect on volatility would be unlikely to show up as statistically significant if the dependent variable takes the form of a U-shaped curve, with high volatility scores for both high and low measures of the independent variable. Versions of our regression models run with a U-shaped, bidirectional measure of incumbent vote change consistently failed to capture the effects of these linear independent variables.

<sup>7</sup> The logged rate of inflation is used to prevent a small number of cases of hyperinflation from skewing the results. Studies of economic voting in the United States and Western Europe frequently use unemployment as an indicator of economic performance; we did not do so because official unemployment rates in most Latin American societies mask much higher levels of structural underemployment, and they are not a reliable indicator of short-term fluctuations in economic performance. Economic data for this study were obtained from the Inter-American Development Bank, *Economic and Social Progress in Latin America*, various issues.

atility, with high volatility expected to correlate with poor economic performance.<sup>8</sup> Longer term effects of changes in economic performance are captured in a second regression model, which tests the curvilinear variant of the economic voting hypothesis. In place of inflation, this model uses the logged absolute value of the net change in the inflation rate (*Inflation Change*) under the incumbent administration. This variable registers high scores for either sharp increases or decreases in the inflation rate. It thus allows volatility to be a curvilinear function of both economic improvement and deterioration, while transforming the bidirectional relationship into a unidirectional measure that is compatible with the other (linear) variables in our regression model.

The independent variable for our second hypothesis, which links electoral volatility to change in the institutional rules of the game, also measures the effect of relatively short-term factors. We have constructed an index (*Institutions*) that measures the degree of institutional discontinuity in the period between elections. The index ranges from 0 to 3, with one point added for each of the following major discontinuities: (1) the adoption of a new constitution within the electoral cycle, (2) an increase in the electoral participation rate of more than 25% due to the enfranchisement of new voters, and (3) an irregular change in executive authority such as an autogolpe or the forced resignation, overthrow, or impeachment of a president.<sup>9</sup>

The independent variables for party system attributes have been operationalized as follows. For institutionalization we use the average age of the political parties (*Party Age*) that received more than 10% of the vote in the previous election,<sup>10</sup> a variant of an indicator developed by Mainwaring and Scully (1995, 14–15).<sup>11</sup> For ideological polarization (*Polariza-*

*tion*) we use a continuous indicator developed by Coppedge (1997b) to measure Left-Right polarization. For party system fragmentation (*Fragmentation*), we use the indicator chosen by Remmer (1991b), the percentage of the vote obtained by the top two parties in the previous election, and subtract it from 100, so that higher scores will be associated with greater fragmentation.<sup>12</sup>

Data constraints make it a challenge to develop reliable indicators of class cleavages and their organizational closure. Bartolini and Mair (1990) found party membership to be a useful indicator of organizational closure, but reliable data on party membership across Latin America are not available. We developed time-series measures of trade union density (*Union Density*) as a percentage of the work force, an indicator also used by Bartolini and Mair. In addition, we chose to use the size of the *Informal Sector* of the work force as an indicator of fluidity in class cleavages. Workers in that sector typically occupy an ambivalent class position and are notoriously difficult to organize; recent research on Latin America suggests that they have weak class identity and unstable political loyalty (Cameron 1994; Roberts 1996). Cross-national time-series data on the size of the informal sector in Latin America are generally erratic.<sup>13</sup> The most reliable indicator we have found, drawing from Rosenbluth (1994), is to score countries according to the size of their informal sector on a scale of 1 to 3, with 1 representing the lowest level of informality and 3 the highest.<sup>14</sup> We have called this variable informal sector.

Finally, our models also include a trend variable (*Time*) for the number of years after 1980 in which an election takes place. As is customary in time-series designs, the trend variable helps to avoid the problem of spurious correlation that can arise when the values of a dependent variable and one or more explanatory

<sup>8</sup> It is not appropriate to put economic growth and inflation rates in the same econometric model if the two variables are highly intercorrelated, but there is little evidence of a significant Phillips curve linking these two variables in Latin America during the 1980s and 1990s. In our legislative and presidential data sets, the respective correlations between the two variables are only  $-.29$  and  $-.44$ , both short of the level at which multicollinearity becomes a serious problem.

<sup>9</sup> The construction of an index is warranted, since all three components are indicators of institutional change that are hypothesized to increase electoral volatility, and degrees of freedom constraints prohibit the inclusion of separate dummy variables for each component in the same regression model. We disaggregated the index and ran a separate regression for each component to ensure that the effect of the index was not driven by one or two variables alone. All components had a statistically significant relationship to electoral volatility and the models' explanatory power increased when they were specified to include the combined effects of the component variables.

<sup>10</sup> We used the data provided by Mainwaring and Scully (1995, 15) to calculate the average age of all the parties they included. For parties not in their list, we used the founding dates provided by Dix (1992), with some supplementation from Coggins and Lewis (1992) and *Europa World Year Book*.

<sup>11</sup> Mainwaring and Scully (1995) use the average age of parties that win at least 10% of congressional seats as one indicator of institutionalization. Were our party age variable a simple cumulative effect of past volatility, it would be too closely related to our dependent variable to include as an explanatory variable. The relationship between party age and electoral volatility is not tautological, how-

ever, as some volatility reflects electoral fluctuations between established parties. Furthermore, empirical evidence from Europa suggests that older parties are *more* volatile than younger parties (Maguire 1983, 83–5). It is hardly self-evident that Latin American parties with roots in antiquated, nineteenth-century oligarchic disputes should be more stable in today's mass electorate than "modern" parties forged in response to contemporary issue cleavages. The relationship between volatility and party age is thus an empirical question that should be tested rather than presumed.

<sup>12</sup> In previous versions of this manuscript we combined fragmentation and polarization in an interactive term to test Sartori's propositions about the destabilizing consequences of polarized pluralism. We decided to drop this variable because of multicollinearity problems and because fragmentation and polarization proved to have opposite, rather than mutually reinforcing, effects upon electoral volatility.

<sup>13</sup> Even the official figures from the International Labor Organization's Latin American office raise concerns regarding the cross-national comparability of measurement. For example, in the ILO's *Informa América Latina y el Caribe: Panorama Laboral 96* (1996, 32–3), Argentina's level of informalization (53.3) is virtually identical to that of Ecuador (53.5) and Peru (53.9), which strains credulity, given the very different class and economic structures of Argentina.

<sup>14</sup> Rosenbluth's rank ordering of nations is much more reliable than the available time-series data. Although informality rose across the region in the 1980s and 1990s, there is little reason to expect the relative position of nations in the threefold categorization to change significantly. Consequently, our static scale is appropriate for measuring the enduring features of underlying class structures.

variables move independently in a consistent direction over time. This variable also makes it possible to identify secular trends in the dependent variable itself. The final regression model testing the linear variant of our economic voting hypothesis can be stated econometrically as:

$$\begin{aligned}
 Y(\text{Volatility}) = & a + \beta(\text{GDP}) + \beta(\text{Inflation}) \\
 & + \beta(\text{Institutions}) + B(\text{Party Age}) \\
 & + \beta(\text{Fragmentation}) + \beta(\text{Polarization}) \\
 & + \beta(\text{Union Density}) + \beta(\text{Informal Sector}) \\
 & + \beta(\text{Time}) + u_i.
 \end{aligned}$$

The regression model testing the curvilinear variant of the economic voting hypothesis merely replaces inflation with inflation change on the right-hand side of the equation.

The analysis of pooled time-series cross-sectional data makes estimation particularly challenging insofar as it entails threats of both heteroscedasticity and serial correlation (Stimson 1985). Although Stimson (1985) recommends that least-square dummy variables be used in research designs with a substantial cross-national component, we follow the lead of Beck and Katz (1995), who suggest that, given corrected error components, OLS is as efficient as other methods. To correct for heteroscedasticity, we used the robust variance estimator for linear regression developed by Huber (1967) and White (1980).<sup>15</sup> With respect to serially correlated errors, the irregular nature of the time-series aspect of the research design suggests that this problem is not particularly relevant. Furthermore, a series of diagnostic tests conducted on the data suggest that the OLS assumption of nonserially correlated errors is not violated.<sup>16</sup>

## RESULTS AND DATA ANALYSIS

We began data analysis by using the Pedersen index of volatility as the dependent variable. The results of the full regression models for legislative and presidential elections are presented in tables 2 and 3, respectively. In each table, model 1 tests the linear variant of the economic voting hypothesis, using inflation as an inde-

<sup>15</sup> This estimator is available through the "robust" command in STATA 5.0.

<sup>16</sup> Analysis of residual plots proved inconclusive. Subsequently, we regressed the residuals from each model on the lagged residuals and the independent variables, and in no case was the lagged residual significant. As such, we concluded that serial correlation is not a serious problem, and the OLS estimator is the best linear unbiased estimator. The absence of serial correlation may be attributable in part to the party age variable, which helps to control for performance over time. This control is far superior to the inclusion of a lagged dependent variable in our models, since it does not require us to lower *N* by dropping the first volatility score for each country. Furthermore, the party age variable is sufficiently independent of electoral volatility to be theoretically meaningful, in contrast to a lagged dependent variable. Whereas a lagged dependent variable was correlated with volatility at .76 and .73 in our presidential and legislative data sets, respectively, party age was correlated at -.52 and -.50.

**TABLE 2. Electoral Volatility in Legislative Elections by Economic, Social, and Institutional Variables (OLS)**

Independent Variable	Model 1	Model 2	Trimmed Model
GDP	-.834** (.277)	-.841*** (.225)	-.737*** (.195)
Inflation	.280 (.777)	—	—
Inflation change	—	.754 (.386)	.960* (.387)
Institutions	16.675*** (2.008)	15.874*** (2.085)	16.354*** (1.930)
Party age	-.167*** (.040)	-.170*** (.037)	-.205*** (.028)
Fragmentation	.092 (.083)	.088 (.081)	—
Polarization	-.191* (.085)	-.207** (.075)	-.229** (.069)
Union density	-.265 (.173)	-.380* (.173)	-.511*** (.151)
Informal sector	1.537 (1.363)	1.189 (1.260)	—
Time	.184 (.278)	.133 (.270)	—
Nicaragua '96	35.795*** (5.142)	33.450*** (5.112)	37.004*** (3.690)
Adjusted <i>R</i> <sup>2</sup>	.76	.77	.77
<i>N</i>	58	58	58

Note: Entries are unstandardized regression coefficients, with robust standard errors given in parentheses. \**p* ≤ .05, \*\**p* ≤ .01, \*\*\**p* ≤ .001; two-tailed tests.

pendent variable, and model 2 tests the curvilinear variant of the hypothesis, using inflation change as an independent variable. The tables also report the results for a trimmed model that drops all variables which do not fall within a .10 probability level in either of the full models.<sup>17</sup>

The regression models include a dummy variable for the 1996 election in Nicaragua. Diagnostic tests indicated that this case is a major statistical outlier, which skews the model results for both legislative and presidential elections.<sup>18</sup> This election had a very high volatility score, which was an artifact of the anomalies and extreme institutional fluidity associated with the virtually complete reconfiguration of the partisan center and Right in the aftermath of the electoral defeat of the Sandinistas in 1990. Given the singular nature of Nicaragua's postrevolutionary reconstitution of repre-

<sup>17</sup> To be more inclusive of potentially important variables, our models use a cutoff of *p* < .10 for entry into the trimmed models, but we do not report statistical significance unless *p* ≤ .05.

<sup>18</sup> Diagnostic tests for outliers included analysis of partial-regression leverage plots, DFBETAs, and Cook's Distance.

sentative institutions in our sample of cases, there is justification for treating this election as an outlier.

### Legislative Results

In the sample of legislative elections, our model provides a measure of support for all three theoretical approaches. For the economic voting argument, both GDP and inflation change qualify for our trimmed model, although inflation does not. For the social cleavage hypothesis, union density has a significant negative association with volatility in the second full model. Although the coefficient for informal sector has the expected (positive) sign, it does not make the cutoff for the trimmed model. Finally, some institutional hypotheses are strongly supported, as the institutions and party age variables are significant. The coefficient for polarization is also significant, although its sign is not in the expected direction (discussed below). Of the institutional variables, only fragmentation falls short of statistical significance, as does the trend variable. Overall, the untrimmed models explain 76% and 77%, respectively, of the variance in legislative electoral volatility, and the results are robust in the face of additional diagnostic tests.<sup>19</sup>

The explanatory power of the trimmed legislative model is 77% of the variance in electoral volatility. All the variables are significant at the .001 level or better, except for polarization (significant at the .01 level) and inflation change (significant at the .05 level). Despite the relatively small beta coefficient (−.205) for party age, it still suggests a 28.6 point decrease in volatility in moving from the youngest party system (a lagged score of 2.7 years for Panama in 1989) to the oldest (a lagged score of 142 years for Colombia in 1994). In comparison, the coefficient for GDP suggests that even a relatively robust increase of 5% in the rate of economic growth causes only a 3.7 point decrease in electoral volatility, while volatility increases by nearly one point for every one-point increase in the logged change in the inflation rate. The coefficient for the institutions index indicates that a major institutional discontinuity is associated with an increase in volatility of more than 16 points. Finally, an increase of 10% in the rate of unionization entails a 5.1 point decrease in volatility, while a ten-point increase in the polarization index is associated with a decrease in volatility of 2.3 points. This latter result is the most surprising finding in our legislative model, as it is contrary to the hypothesized (positive) relationship. It suggests that ideological polarization, rather than destabilizing the electorate, serves to anchor parties within relatively stable and differentiated electoral constituencies.

<sup>19</sup> In particular, these findings and those for presidential elections are robust in the face of fixed country effects. The numerous cross-sections relative to overall sample size in our data set make the most widely used means to test for unit effects, the inclusion of dummies for each cross-section in a single equation, impossible. Instead, we ran a series of separate regressions with a dummy for each cross-section. Although several of the country dummies were significant, in no case did they substantively alter the results for the other variables in our models.

**TABLE 3. Electoral Volatility in Presidential Elections by Economic, Social, and Institutional Variables (OLS)**

Independent Variable	Model 1	Model 2	Trimmed Model
GDP	−.843 (.527)	−.978* (.460)	−.704 (.416)
Inflation	.967 (1.176)	—	—
Inflation change	—	.495 (.697)	—
Institutions	8.377* (4.024)	8.575 (4.494)	9.243* (4.018)
Party age	−.105 (.054)	−.097 (.049)	−.103* (.043)
Fragmentation	.279* (.132)	.283* (.137)	.371** (.116)
Polarization	−.029 (.098)	−.013 (.094)	—
Union density	.018 (.286)	.013 (.309)	—
Informal sector	.590 2.350	.647 (2.285)	—
Time	.743 (.506)	.745 (.512)	—
Nicaragua '96	38.131*** (7.691)	34.695*** (8.211)	42.208*** (3.296)
Adjusted $R^2$	.58	.58	.59
$N$	43	43	43

Note: Entries are unstandardized regression coefficients, with robust standard errors given in parentheses. \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ ; two-tailed tests.

### Presidential Results

A higher level of random variation in volatility levels should be expected in presidential elections, given their personalist dimension. Nevertheless, our regression models still explain a sizable percentage of the variance in electoral volatility, as shown in Table 3. Although the full models for presidential elections offer little support for structural explanations—neither trade union density nor the size of the informal sector comes even close to statistical significance—they strengthen the case for institutional and economic explanations. Neither inflation variable makes it into the untrimmed model, but GDP, party age, and the institutions index all make the cutoff, while fragmentation displaces polarization in the trimmed model with a positive sign.

In the trimmed model for presidential elections (adjusted  $R^2 = .59$ ), only the institutional variables and the dummy variable for Nicaragua achieve statistical significance, as GDP falls short of the .05 level. Fragmentation is significant at the .01 level, while party age and institutions are significant at .05. The coefficient for party age is weaker than in the legislative model, yielding a decrease of 13.5 points in electoral volatility

in moving from the youngest to the oldest party system. The coefficient for the institutions index decreases as well, with a major institutional discontinuity leading to an increase of 9.2 points in volatility. A 21-point increase in volatility is associated with the move from the least fragmented party system (a lagged score of 1.4 for Costa Rica in 1994) to the most fragmented (a lagged score of 57.9 for Ecuador in 1992).

It is reasonable to expect that legislative elections would be more vulnerable to institutional fragilities and discontinuities than presidential elections, whereas individual presidents (or, more properly, the parties to which they belong) would be held more directly accountable for short-term economic performance than legislative representatives. The latter typically have little individual (and limited collective) influence over economic policies and may find their electoral support heavily contingent upon local concerns or the provision of constituency services.

Our findings indicate that institutional effects are indeed stronger in legislative elections, but presidential campaigns are hardly immune. More surprising is the finding that legislative elections are more vulnerable to economic fluctuations than are presidential elections, as neither GDP nor inflation has a statistically significant influence on volatility in the latter. The finding regarding inflation is especially surprising, as it stands in stark contrast to empirical work on Latin America in the 1980s (Remmer 1991b) and challenges the conventional wisdom about the devastating political consequences of hyperinflationary cycles (Weyland 1996b).

Given our statistical results, should we conclude that executive policymakers need not fear political fallout from the mismanagement of fiscal and monetary policies? Such a conclusion would be rash. The accountability of incumbent presidents and their parties to voters' perceptions of economic performance is more directly ascertainable when we change dependent variables, shifting from net systemic volatility to the absolute value of incumbent vote change.

As shown in Table 4, when the dependent variable for presidential elections is incumbent vote change, inflation makes it into the trimmed model and has a statistically significant (positive) relationship. In contrast, inflation change falls short of significance, and GDP achieves significance in one of the full models but not in the trimmed model. With respect to institutional variables, party age and polarization have significant negative associations with this indicator of volatility, the latter once again having a sign opposite the one hypothesized. The institutions index makes it into our trimmed model but falls just short of significance at the .05 level. Fragmentation and the two structural variables do not make it into the trimmed model, which explains 60% of the variance in incumbent vote change. These findings offer little support for the longer term, curvilinear variant of the economic voting hypothesis, but they confirm the conventional wisdom that short-term inflationary surges have damaging electoral consequences for incumbents.

Since the dependent variable is the absolute value of incumbent vote change, the sign of the regression

**TABLE 4. Incumbent Vote Change in Presidential Elections by Economic, Social, and Institutional Variables (OLS)**

Independent Variable	Model 1	Model 2	Trimmed Model
GDP	-.368 (.566)	-.811* (.403)	-.192 (.460)
Inflation	2.125 (1.144)	—	2.279* (1.000)
Inflation change	—	-.067 (.611)	—
Institutions	8.230 (4.283)	10.169* (4.524)	8.493 (4.458)
Party age	-.131* (.065)	-.105* (.052)	-.146* (.059)
Fragmentation	-.006 (.129)	.021 (.129)	—
Polarization	-.257* (.115)	-.194* (.081)	-.289** (.090)
Union density	-.027 (.198)	.184 (.211)	—
Informal sector	1.000 (2.200)	1.616 (2.035)	—
Time	.353 (.519)	.512 (.487)	—
Nicaragua '96	48.579*** (8.826)	44.394*** (7.590)	51.873*** (2.588)
Adjusted $R^2$	.57	.50	.60
N	43	43	43

Note: Entries are unstandardized regression coefficients, with robust standard errors given in parentheses. \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ ; two-tailed tests.

coefficient does not tell us the direction of the vote shift, that is, whether for or against the incumbent. In our sample, however, the vote shifted against the incumbent in every case in which inflation reached triple digits in the year preceding the election, which confirms that voters punish incumbents who cannot contain inflationary pressures.

Taken together, our regression models demonstrate clearly that economic performance has an effect on electoral stability, but the relationships are more complex than previously recognized. Economic growth exerts an influence primarily at the systemic level of net volatility, where it stabilizes partisan support in legislative elections. Sharp changes in the rate of inflation from one administration to the next, whether positive or negative, have the opposite effect: They are systematically destabilizing for legislative elections. In contrast, short-term inflation influences the support for incumbent presidents, which suggests that voters are more inclined to hold them directly accountable for monetary stability than economic growth. Although voters punish incumbents who fail to contain inflationary pressures, we find no evidence of systematic electoral

rewards for presidents who succeed in economic stabilization after inheriting hyperinflation from their predecessor. This provides cross-national support for Weyland's (1998) finding in the Peruvian case that the political dividends associated with stabilization are subject to a law of diminishing returns.

Likewise, our findings demonstrate that institutional factors are powerful determinants of electoral volatility but not always in the expected manner. The positive association between volatility and our index of institutional discontinuities demonstrates that stable patterns of electoral competition need consistent rules of the game and a secure institutional environment. Thus, at least in part, electoral volatility reflects broader patterns of political turbulence and institutional change or uncertainty. Likewise, electoral volatility is diminished when party systems are highly institutionalized. Indeed, party system institutionalization (age) is our most consistent variable, the only one that achieves statistical significance in all three trimmed regression models.

The other institutional variables yield some unexpected results. Party system fragmentation, which is heavily stressed in previous studies, achieves statistical significance in only one of our regression models, which indicates that the number of parties is less important when controls are introduced for other institutional variables. Even more striking, perhaps, is the finding that ideological polarization tends to diminish rather than increase electoral volatility.<sup>20</sup> Polarization may be a source of political conflict but does not cause electoral volatility; instead, it appears to distance parties, solidify their collective identities, and anchor them within differentiated voting constituencies, thus constraining individual voter mobility.

Finally, there is only modest empirical support for structural explanations of electoral volatility in our models. Trade union density is significant only in the legislative model, and while the coefficients for the size of the informal sector consistently have the expected positive sign, they do not achieve statistical significance in any of our regression models. Despite acute socioeconomic inequalities, class cleavages in Latin America clearly have not reached the level of organizational closure or structured partisan competition as they did historically in Western Europe.

<sup>20</sup> It is conceivable that the relationship between volatility and polarization could be nonlinear, with an inverted U-shaped curve, thus reconciling both of the rival hypotheses discussed for this variable. If this were the case, then volatility initially would increase as a single-peaked party system spreads out, creating ideological space for alternative parties and enhancing voter mobility. It then would decrease as the party system moves closer to the ideological poles, where voter mobility is constrained by the greater distance between parties and the rigidity of ideological identities. Under these conditions, a statistically significant negative coefficient, such as the one we found, could be obtained from a sample skewed toward the polarized end of the ideological spectrum. Neither our legislative nor presidential sample has a skewed polarization variable, however, which suggests that the negative coefficient reflects a linear relationship.

## ANALYSIS AND DISCUSSION OF FINDINGS

The results of our regression models suggest a number of methodological and theoretical observations. The most important methodological lesson concerns the sensitivity of our independent variables to the choice of dependent variable. In particular, economic indicators perform very differently in a model with incumbent vote change as the dependent variable rather than the Pedersen index, despite the close relationship between these two measures of volatility. Research designs should take into account the distinctive strengths and biases of alternative volatility indicators.

Likewise, although we do not find systematic empirical support for curvilinear effects of inflation on incumbent vote change, anecdotal evidence should caution researchers to take the possibility seriously. The number of elections in our data set with proincumbent vote shifts is too small to reach definitive conclusions, and their concentration in the 1990s, following a decade of uniform anti-incumbent voting, suggests the presence of period effects that may be washed out in a longer time-series analysis. Although the small *N* problem precludes a meaningful comparison of the correlates of volatility in the 1980s and 1990s, future research should be sensitive to the possibility of period-specific electoral dynamics and design models that can differentiate between pro- and anti-incumbent vote shifts.

Theoretically, a major puzzle to arise from our findings is why cleavage structures have such a modest effect on electoral stability in comparison to Western Europe. Is the weakness of this relationship due to the social and political dislocations that accompanied Latin America's recent transition to market liberalism? Or is it attributable to intrinsic properties of Latin American party systems that differentiate them from those in Europe? The first interpretation draws support from the loosening of bonds between parties and their organized mass constituencies during the free-market or neoliberal economic restructuring that followed the collapse of Latin America's developmentalist states in the early 1980s. In much of the region, party systems were reconfigured by the labor and populist mobilizations of the mid-twentieth century (Collier and Collier 1991), and these systems have been profoundly shaken by the demise of corporatist linkages to popular organizations, the generalized weakening of labor movements, and the drying up of resources used to weld together party-mediated clientelistic networks.

With few exceptions, the historic parties that mobilized labor movements behind state-led development have either collapsed (Peru's APRA and United Left coalition), been significantly weakened (Mexico's PRI, Venezuela's AD, the Chilean Communist Party, the Nicaraguan Sandinistas), or been transformed into defenders of market liberalism (the Argentine Peronists, the Chilean Socialists, the MNR in Bolivia, and the Mexican PRI once again). In many cases these political parties have initiated economic austerity and market-oriented structural adjustment policies that have threatened the material interests of their tradi-

tional constituencies in the labor movement. These policy shifts have frayed the organizational bonds that link parties to civil society and have scrambled traditional political and ideological identities. In the process they have considerably loosened class cleavages in the political arena.

It is hardly surprising, then, that labor union density has only a modest association with electoral stability in our regression models. Even where relatively strong labor movements continue to exist, their stabilizing effect is muted by the erosion of their ties to specific parties (Murillo 1997; Teichman 1996) and their diminished capacity to deliver encapsulated bloc votes to partisan allies, both of which enhance the mobility of individual voters.

The weak relationship between electoral stability and cleavage structures also may reflect the different organizational properties of Latin American party systems. In Western Europe, party system stability has been grounded historically in the horizontal organization of class cleavages; in Latin America, the most stable party systems in recent decades have been organized along vertical networks of patron-client linkages that cut across class distinctions. In particular, electoral competition has been highly stable in three countries—Honduras, Uruguay, and Colombia—where the electoral marketplace continues to be dominated by oligarchic and clientelistic parties with roots in nineteenth-century struggles that predated the onset of mass political mobilization (refer to Table 1).

This pattern sheds new light on our party age variable, the most consistent predictor of electoral stability in our regression models. Although we have used it as an indicator of the degree of party system institutionalization, it is also clear that it captures qualitative distinctions between different types of party systems. In particular, it differentiates the old oligarchic party systems from the labor-mobilizing party systems created during the more recent era of mass politics. The organizational logic of the latter is more directly subverted by the social and economic dislocations that accompany free-market reforms, while the durability of the oligarchic party systems points to a model of party-society linkages that contrasts with the European pattern yet produces comparable levels of electoral stability in select cases.

The problem is that vertically organized, patronage-based parties are certainly no guarantee of electoral stability. Indeed, some of Latin America's most fragile party systems share these basic properties, and the historical conditions that favored the institutionalization of stable intraoligarchic competitive alignments in the nineteenth century have rarely been reproduced since then (Coppedge 1998). The oligarchic model remains more of a historical anomaly than a blueprint for establishing electoral stability at the dawn of the twenty-first century.

What, then, are the prospects for stabilizing electoral competition in the years to come? On the one hand, we have shown that economic performance and discontinuity in regime institutions are important short-term sources of electoral instability. Political leaders have a

measure of control over these variables, and it is plausible that their influence on electoral instability will diminish over time if the institutional rules of the game become consolidated in new democracies and if economic performance stabilizes following the turbulent debt and inflationary crises of the 1980s. To date, however, volatility has increased in the 1990s despite improved economic performance and the persistence, if not consolidation, of democratic regimes.

Although some of this volatility can be traced to proincumbent vote shifts following economic stabilization, new organizational loyalties are not necessarily congealing. President Fujimori's 40-point plunge in public approval ratings in Peru in mid-1997—only two years after his landslide reelection—attests to the extreme fragility and volatility of autocratic, noninstitutionalized authority patterns in the region. Indeed, there are a number of reasons to believe that the economic crisis of the 1980s and the market-oriented restructuring that followed have reinforced the long-term institutional and structural sources of volatility identified in this study.

First, the economic crisis pummeled many of the traditional, highly institutionalized parties that had the misfortune to govern in its midst, and there are strong indications that the political damage they suffered is permanent. It is hard to imagine that Mexico's PRI, Peru's APRA, or Venezuela's AD will ever return to the positions of dominance that they held in the not-so-distant past. Party institutionalization may be a significant predictor of electoral stability, but party systems are not frozen in time, and the aforementioned cases attest to the possibility of deinstitutionalization. The Venezuelan experience in the 1990s, when a strong and deeply entrenched party system was suddenly rejected by the electorate, is only an extreme instance of a more widespread trend toward the deinstitutionalization of political representation in the region.

Second, although the new consensus on market liberalism has sharply diminished policy discord and ideological conflict (Edwards 1995, 41–65), it does not appear to buttress the institutional sources of electoral stability. Depolarization may leave voters free to pick and choose from a variety of virtually indistinguishable policy and partisan electoral options, thus weakening collective identities and maximizing the electoral weight of highly contingent variables, such as personality or candidate appeal. To the extent that ideological depolarization is presumed to contribute to democratic consolidation (Remmer 1992–93), this raises an intriguing question for scholars to explore in future research: Are there tensions between the conditions for regime and electoral stability?

Finally, as suggested above, social and economic changes have loosened the bonds between parties and organized mass constituencies. The erosion of linkages between parties and corporatist associations is not unique to Latin America; Kirchheimer (1966), Panebianco (1988), Pizzorno (1981), Kitschelt (1994), and Mair (1997) have all noted a weakening of encapsulating organizational ties in European party systems as

well. The significance of mass party organizations also has been diminished by the rise of the mass media, the professionalization of electoral campaigns, and the growth of interest groups, social movements, and non-governmental organizations as nonpartisan agents of political representation. These trends have enhanced the electoral mobility of individual voters. As Mair (1997, 37–8) puts it, parties now compete in the electoral marketplace rather than close it off, and they seek the conditional endorsement of voters rather than their encapsulation.

## CONCLUSION

This study helps explain why Latin America's crisis of political representation has outlived the regionwide economic debacle of the 1980s. Although electoral volatility is influenced by economic performance, it is also related to a series of deeply rooted institutional and, to a lesser extent, structural factors that are less amenable to short-term political remedies. In much of the region, party systems are neither well institutionalized nor grounded in social cleavages, and they do not close off the electoral marketplace by encapsulating voters or articulating clearly differentiated ideological and programmatic platforms. In the absence of strong organizational ties and collective identities, individual voter mobility is very high, and the social foundations of electoral competition are fluid and unstable.

From a comparative perspective, the economic, institutional, and structural variables explored in this study should shed light on patterns of electoral instability in much of the former Soviet bloc, where dual transitions to political democracy and the marketplace have occurred. It is hardly surprising that electoral volatility plagues societies in which party systems are being re-created in a context of wrenching social and economic transformation, and there is little reason to expect electoral stability unless contradictions emerge within the new model of development that will lead to the political and organizational crystallization of new social cleavages. If this occurs, then today's volatility may eventually come to be recognized as an epiphenomenon of a conjunctural change in political eras, that is, a manifestation of a partisan dealignment that accompanies the shift from statist to market-oriented development and precedes the realignment of partisan representation under the structural conditions of a neoliberal social and economic landscape. In the absence of such cleavage crystallization, however, efforts to realign and institutionalize party systems will rest upon highly fluid social foundations, and they will remain subject to the whims of leadership personalities.

To date, neither proponents nor opponents of the neoliberal model have effectively channeled their demands through party institutions in Latin America. Fragmented and heterogeneous lower classes have periodically protested free-market reforms, but they have not built sustainable representative institutions to articulate alternative development models in electoral or policymaking arenas. Likewise, elite proponents of

neoliberalism have rarely relied upon political parties as vehicles for the transmission and implementation of their political programs; market reforms have been imposed by a motley collection of military dictators, "apolitical" technocrats, independent autocrats, and erstwhile populists, but they have not often been the handiwork of conservative, probusiness political parties. Consequently, although neoliberalism has exacerbated class inequalities in much of the region (Bulmer-Thomas 1996), it has not established structural or institutional moorings for class-based political representation.

The durability of a handful of party systems with roots in the oligarchic politics of the nineteenth century is impressive, but their historical pattern of institutional development has been path dependent, and it is a path long since closed for the rest of Latin America. In most of the region, party systems lie suspended between the demise of the populist era of political representation and the rise of a new one that corresponds to the more heterogeneous and fragmented social landscape of the neoliberal era. Electoral volatility can be expected during the passage to this new era; whether it remains an enduring feature of politics in the region may depend upon the ability of parties to organize the profound social divisions of the neoliberal order.

## APPENDIX A: SAMPLE OF ELECTIONS

In each country, the first volatility score corresponds to the second national election after the onset of the regional wave of democratization in 1978. The first election in each country served as the baseline for calculation.

Volatility scores were calculated for the following presidential elections: Argentina 1989, 1995; Bolivia 1985, 1989, 1993, 1997; Brazil 1994; Chile 1993; Colombia 1982, 1986, 1990, 1994; Costa Rica 1982, 1986, 1990, 1994, 1996; Dominican Republic 1982, 1986, 1990, 1994, 1996; Ecuador 1984, 1988, 1992, 1996; Honduras 1985, 1989, 1993, 1997; Mexico 1988, 1994; Nicaragua 1990, 1996; Panama 1994; Paraguay 1993; Peru 1985, 1990, 1995; Uruguay 1989, 1994; and Venezuela 1983, 1988, 1993.

Volatility scores were calculated for the following legislative elections: Argentina 1985, 1987, 1989, 1991, 1993, 1995, 1997; Bolivia 1985, 1989, 1993, 1997; Brazil 1990, 1994; Chile 1993, 1997; Colombia 1982, 1986, 1990, 1991, 1994; Costa Rica 1982, 1986, 1990, 1994; Dominican Republic 1982, 1986, 1990, 1994; Ecuador 1984, 1986, 1988, 1990, 1992, 1994, 1996; Honduras 1985, 1989, 1993, 1997; Mexico 1982, 1985, 1988, 1991, 1994, 1997; Nicaragua 1990, 1996; Panama 1989, 1994; Paraguay 1993; Peru 1985, 1990, 1995; Uruguay 1989, 1994; and Venezuela 1983, 1988, 1993.

## APPENDIX B: MEASUREMENT OF VARIABLES

### Electoral Volatility

The calculation of the Pedersen index is explained in note 2. In legislative elections the gains and losses in the percentage of seats obtained by each individual party, including very small parties, were included in the calculation of the index. Vote percentages could not be used due to data constraints in

some elections. For Argentine legislative elections, vote shares were used instead of seats because the incomplete turnover of the congress precluded an accurate calculation of volatility from the available data. In presidential elections, the frequent entry and withdrawal of small parties into larger electoral coalitions made it easier to follow Remmer's (1991b) example of using the aggregate percentage shift in the vote for all parties that received less than 5% of the vote in the calculation of the Pedersen index.

Party mergers, splits, and name changes were calculated according to the method followed by Bartolini and Mair (1990, 311–2).

Electoral results from the 1980s were taken from Nohlen (1993), while results from the 1990s were taken from *The Europa World Year Book*. Due to data limitations in these primary sources, Argentine legislative results were taken from *Anuario Estadístico de la República Argentina* (1995, 260–3). Ecuador's 1992 presidential election results were taken from Conaghan (1995, 440). Panama's 1989 results were taken from Coggins and Lewis (1992, 224).

### Inflation Change

The variable is calculated by subtracting the inflation rate during the last 12 months of the previous administration from the inflation rate under the incumbent administration during the 12 months preceding the election in question. Our independent variable is the logged absolute value of this change in inflation from one administration to the next.

### Institutional Discontinuities

The cases scored as institutional discontinuities in our data set are as follows. New constitutions were adopted before elections in Brazil 1990, Colombia 1991 (legislative) and 1994 (presidential), Nicaragua 1990, Peru 1995, Ecuador 1984, and Paraguay 1993. Increases in electoral turnout of more than 25% following the late-1970s enfranchisement of illiterates occurred in Peru 1985 and Ecuador 1984. Irregular changes in executive authority preceded the elections in Bolivia 1985, Brazil 1994, Panama 1989 and 1994, Peru 1995, and Venezuela 1993.

### Polarization

This variable, taken from Coppedge (1997b), is based on a classification of each party's ideological position as being on the Right, Center-Right, Center, Center-Left, or Left, with each of these ideological positions containing both secular and Christian variants. Parties of the Right or Left were scored as being twice as far from the center as those classified as Center-Right or Center-Left. These scores were weighted by the party's percentage of the vote, and the mean Left-Right position of the entire party system was calculated by subtracting the weighted left-of-center scores from the weighted right-of-center scores. An index of polarization was then calculated by measuring the dispersion from this mean in individual elections, based on the share of the vote and the ideological position of the individual parties. We used Coppedge's data for the 11 countries in his study; polarization scores for Nicaragua, Panama, Paraguay, Honduras, and the Dominican Republic were calculated by the authors using the same method.

### Union Density

Data on trade union membership in Latin America is generally unreliable, as official union claims are frequently inflated, and density figures are often highly divergent and unstandardized with regard to the referent population (economically active population vs. urban or wage laborers). No single source provides reliable, standardized estimates of union membership over time for the entire region, so we followed a triangulation strategy that derives and cross-checks data from several different official sources. Where necessary, we pro-rated changes in unionization scores when gaps existed between data points.

Our primary source was the U.S. Department of Labor's *Foreign Labor Trends*. We supplemented this with data from McGuire (1997, 268) for Argentina and Colombia in the early to mid-1980s; the International Labor Organization's *Informa América Latina y el Caribe: Panorama Laboral '96* (1996, 38) for Brazil, Colombia, Mexico, Panama, and the Dominican Republic in the 1990s; and Márquez and Pagés (1998, 38) for Argentina, Bolivia, Costa Rica, Ecuador, Honduras, Nicaragua, Paraguay, Peru, and Venezuela in the 1990s.

### Informal Sector

Following Rosenbluth (1994), we gave a score of 1 to the informal sector in Argentina, Uruguay, Costa Rica, Chile, and Venezuela. Brazil, Mexico, Panama, and Colombia received a 2. Paraguay, Ecuador, Peru, and Honduras received a 3.

Three nations in our study were not included in Rosenbluth (1994); on the basis of informality estimates provided in the *Economist Intelligence Unit* and *Informa América Latina y el Caribe: Panorama Laboral '96*, we assigned Bolivia and Nicaragua a 3 and the Dominican Republic a 2.

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