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EQUILIBRIA AND THE DECLINE OF PARTY VOTING IN THE U.S. HOUSE OF REPRESENTATIVES, 1877-1990*

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Abstract

Equilibrium relationships have been altogether ignored in previous time-series research on congressional party voting. This analysis employs time-series techniques to demonstrate that party voting in the House is affected by long- and short-term forces. The results show that party voting for both major parties is in a long-term equilibrium relationship with the percentage of states instituting direct primaries and the percentage of first-term members.

Direct primaries are also associated with decreases in congressional party voting in the short-term, but contrary to conventional wisdom, changes in levels of first-term membership are unrelated to changes in party voting in the short-term. The results also confirm that external factors are much more important than internal ones for explaining changes in levels of party voting.

Introduction

One of the most remarked upon features of the contemporary Congress is the resurgence of congressional parties in the 1970s and 1980s (Rohde 1991; Cox and McCubbins 1991 & 1993; Sinclair 1992). Paralleling this resurgence is a growth in the number of recorded teller votes and House floor amendments (Bach and Smith 1988; Smith 1989). Party voting has been of continuing interest to congressional scholars, but these trends have transformed the House floor into a far more important arena of public policymaking and raise important questions about how party voting on the House floor in the contemporary period fits into historical patterns of party voting. For instance, what is the relative importance of long-term vs. short-term forces on party voting? And, what is the relative importance of external vs. internal factors over time?

While these questions must be answered simultaneously, the party voting literature has focused on the second question and ignored the first. The first question is important because of the increased significance of floor voting, but it also bears directly on the issue of collective party responsibility. Collective party responsibility cannot exist when party voting levels are low. We can begin to answer these questions by turning to the literature on determinants of congressional party voting (Sinclair 1977a; Brady, Cooper, and Hurley 1979; Patterson and Caldeira 1988; Hurley and Wilson 1989). This literature employs environmental models that rest on the assumption that the primary determinants of party voting are external to the legislature and reside in party in the electorate and party as organization (Sinclair 1982).

Literature and Theory

Party voting studies consistently find primacy for external factors over internal ones (Brady and Althoff 1974; Sinclair 1977a; Brady, Cooper, and Hurley 1979; Patterson and Caldeira 1988; Hurley and Wilson 1989; Rohde 1991). Several subsidiary generalizations emerge from the time series studies of congressional party voting. Previous

work finds that unified party control of government increases levels of party voting and divided government decreases them (Sinclair 1977a; Brady, Cooper, and Hurley 1979; Patterson and Caldeira 1988; Hurley and Wilson 1989; but see Rohde 1991). Increases in party conflict in the congressional environment (called external party conflict) are associated with increases in House party voting (Brady, Cooper, and Hurley 1979; Patterson and Caldeira 1988). Increased levels of first-term membership produce mixed results, being associated with increased party voting in some models (Brady, Cooper, and Hurley 1979; Hurley and Wilson 1989), but not in others (Patterson and Caldeira 1988). Increases in Democratic Party regional homogeneity are usually associated with increased party voting among Democrats; however, Republican Party homogeneity does not usually impact levels of party voting in the GOP (Brady, Cooper, and Hurley 1979; Patterson and Caldeira 1988; Hurley and Wilson 1989).

This body of literature firmly establishes that external factors matter more than internal ones, but it has completely ignored the possibility of long-term equilibrium relationships. We cannot understand trends in party voting fully without paying attention to these relationships. If two or more variables are in equilibrium, they will follow a common path through time. Tracking equilibria over the long-run provides an aggregate picture of several cross-sectional equilibrium relationships and permits identification of series that track together or remain apart over time. Identification and measurement of these relationships can tell us whether changes in congressional behavior move in sync with changes in the electoral environment. An informative way to focus on the problem of equilibrium relationships is to identify, measure, and evaluate important structural features related to political parties. Structural change can influence the centralization/decentralization of important aspects of parties and may have an important impact on equilibrium relationships.

Long-term equilibrium relationships are important to the study of party voting because they shift the focus of analysis from the examination of short-term effects to examination of relationships that endure across historical periods. This is significant because the history of Congress is characterized by periods of stability and change. For instance, Swift and Brady (1991) observe that a cursory examination of Congress' past reveals that the most seemingly stable of equilibria—Congressional Government, Czarism, and King Caucus—were undermined by the rise of countervailing external and internal factors. Other studies address the internal and external components of different party systems (among others, see Brady 1988; Collie 1989). Collie argues that even though much of the realignment literature has focused on the differences in the party systems of 1896 and 1932, similarities across party systems, such as the rise of individualism, are also important and intriguing features of party history (1989, 113). Indeed, a great irony of our political history is that the Progressive Era's crusade for more responsible party government ultimately led to the disintegration of responsible parties. Thus, while some system of factors remains in an equilibrium state during each historical party period, extended time series analysis can investigate the possibility that some salient factors remain in equilibrium (follow a common time path) across different historical periods. To investigate this possibility, I employ a relatively new tool called error correction modeling.

This method is uniquely suited to answer both research questions because it permits the estimation of long-term relationships and short-term impacts in a single model. Theoretically, parties should be strongest when party in the electorate, party as organi-

zation, and party in the government are connected structurally. When the electorate votes along party lines and party organization plays a primary role in nominating candidates, congressional incumbents have every incentive to vote the party line. Several descriptive accounts report that weakening of party organizations weakened the other two components of party (among others, see Hasbrouck 1927; Merriam and Overacker 1928; Swenson 1982). Even though political scientists accept this as an established principle, the implication of this generalization—that an increase in the percentage of states adopting a primary system for congressional elections is associated with decreases in legislative party voting—has never been subjected to empirical testing.

None of this is to say that all structural changes will result in long-term changes in party voting. Expectations for long-term equilibrating relationships only make sense if structural changes (1) fundamentally alter the relationship between the three components of parties and (2) exert a lasting, more or less permanent impact on the party system that cannot be changed through manipulation of other partisan mechanisms or behavior. Since few structural events satisfy both conditions, most structural changes are likely to impact party voting in the short-term only. Yet, this does not diminish their importance and short-term factors, both structural and non-structural, must be examined alongside long-run relationships. Nor should the possibility be dismissed that non-structural factors can also be in a long-term equilibrium relationship with party voting. As a theoretical matter, however, if the three components of party wax and wane together, it is very likely that equilibrating relationships between non-structural variables and party voting maintain specifically because the non-structural factor either reflects, or measures, a long-term trend in the party system. Given this possibility, I also test to determine if non-structural factors trend with party voting.

Variables, Measures, and Hypotheses

The Dependent Variable

Party voting has been operationalized different ways. These include conflict or unity votes (Clubb and Traugott 1977; Cooper, Brady, and Hurley 1977), party unity scores (Cooper, Brady, and Hurley 1977; Sinclair 1977a), average party cohesion or the Rice index of cohesion (Clubb and Traugott 1977; Cooper, Brady, and Hurley 1977; Sinclair 1977a), party leadership/agenda votes (Cox and McCubbins 1991 & 1993),¹ and party strength (Brady, Cooper, and Hurley 1979; Hurley and Wilson 1989). Each measure taps a different dimension of party voting. For instance, party conflict is an indicator of the percentage of total roll call votes on which at least 50% of one party opposes at least 50% of the other. The conflict measure presents an exacerbated picture of the character of decline (see Collie 1988). Another undesirable feature of this measure is that it weights a perfect opposition vote (i.e., 100% of one party opposed to 100% of the other) the same as a 50-50 split. On the other hand, the Rice index of cohesion is based on the percentage of Democrats and Republicans, respectively, who vote alike on a given roll call.² On any particular vote, if all Democrats vote on the same side of an issue, this produces a cohesion score of 100 irrespective of how Republican members vote. Since cohesion does not account for the level of conflict between the parties, its major flaw is that it assumes that parties are highly salient when there is little or no conflict between parties. Consequently, the use of party cohesion or party conflict as dependent variables by themselves will provide a highly misleading picture of congressional party voting.

The major strength of an alternative party voting measure, party unity scores, is that they take into account both dimensions, intraparty cohesion and interparty conflict; however, they do so in limited fashion. Since unity scores measure the cohesion of each party on conflict votes only, they omit a large number of votes that are necessary for assessing the nature and extent of party strength in Congress. Indeed, throwing out these votes overstates the importance of party in the Congress cross-sectionally and over time.

The dependent variable used in this analysis is party strength, as developed by Cooper, Brady, and Hurley (1977). Party strength is calculated by multiplying the average cohesion index for each party by the percentage of party conflict votes for that Congress. The product is a weighted percentage, average party cohesion weighted by party conflict. Since party strength takes into account cohesion and conflict without discarding votes, it is the most comprehensive time series measure of congressional party voting.

Structural Influences on Party Voting

Structural centralization and decentralization of party power and authority can occur in Congress and in its environment. One series of environmental events in particular, the institution of direct primaries, should have both an immediate (short-term) and enduring (long-term) impact on party voting. Around the turn of the century, sweeping changes in state election law had the effect of reducing the power of party organizations, and subsequently the relevance of party to the electorate, by restructuring the process for nominating party candidates. Other Progressive Era reforms to change the legal status of parties were enacted during this period, but the direct primary was among the most significant of the reforms, if not the most significant. Ranney (1975) calls it the most radical reform and Brooks (1923) calls it the most sweeping change to occur in our party history. In making their case for direct participation of the public, Progressives appealed to the far-reaching political and social individualism that defines the American polity (Ladd 1992). The direct primary was promoted as a democratizing reform that shifted nomination power from a few party leaders to the masses. Arguments that the breakdown of party organizations led to less party voting in the House turn to a significant extent on the probable effect that changes in the recruitment process had on member behavior. Prior to direct primaries, party organizations sent docile, conforming, and even silent individuals to the U. S. Congress (see Ostrogorski 1902; Millspaugh 1917), those who would most likely vote the party line. The direct primary reform changed the political incentives for incumbents and challengers. Swenson (1982) argues that direct congressional primaries greatly reduced the role of local party organizations in the congressional recruitment process, thereby opening the way for more independent and energetic candidates and members. This new type of member was likely to break ranks with their party on floor votes.

The institution of direct primaries in states represents a set of structural innovations that should depress levels of party voting in the short- and long-term. In the short-run, as different states adopted direct primaries at different times, their individual House delegations should have immediately become less beholden to party as organization and more free to buck the party line, and along these same lines, members from states that had not adopted primaries would be, relatively speaking, more constrained by party as organization and party in the electorate (Wilson 1994). In the long-run, since party organizations were more effective at maintaining party discipline in Con-

gress than party in the electorate, the transfer of power to the citizenry should have an enduring, impact on lowering levels of party voting. This is especially true since organizations that took over the bulk of the functions previously performed by turn-of-the-century party organizations favored the idea of depoliticization. This variable is measured as the percentage of states that have a statewide primary system because this, by definition, includes congressional elections.³

Leadership structure is a salient institutional feature reflective of the level of centralization/decentralization of party power within the House over time. Leadership structure is the set of formal and informal rules and procedures that facilitate (or hinder) the ability of leaders to promote the goals of the party or its leadership. Formal powers of the speaker and party composition of the Rules Committee are two key components of formal leadership structure that provide important pieces of the context for party voting. Leadership power is typically measured with dichotomous variables to control for the extent of centralization/decentralization (see Brady, Cooper, and Hurley 1979; Hurley and Wilson 1989). A more refined, much improved measure of leadership structure is employed here while retaining the hypothesis that an increase in formal powers will be associated with an increase in party strength. I construct a historical index of speakers' formal powers with which to test this hypothesis.⁴ Four powers comprise the index: power to appoint Rules Committee members including the chair; appointment power for all other standing committees and chairs; bill referral powers; and recognition/agenda powers. Powers are ranked ordinally from 1 to 5 for each Congress with 1 indicating no power, minimal formal power, or a power subject to substantial checks by the House, 5 indicating that the speaker has very strong formal powers that can be exercised in largely independent fashion, and 2, 3, and 4 representing gradations between these extremes. The rankings for each formal power are then summed to provide an index score for each Congress.

The number of majority and minority members serving on the Rules Committee is fixed at the beginning of each Congress. Based on the assumption that the larger the percentage share of majority party seats on the Rules Committee, the more likely it will be that bills objectionable to the minority party are sent to the floor, increases in the percentage of majority party members serving on Rules should increase party strength. This variable is measured as the percentage of Rules Committee members in the majority party.

Unified party government also reflects centralization of party power in the political system. Since it should be easier, in most cases, to coordinate a party agenda and to promote and pass partisan legislation under the condition of unified party control, on average, unified government should be associated with increases in party strength (see Brady, Cooper, and Hurley 1979). Same party control of the House and the White House is coded as 1; otherwise, the variable is coded as 0.

Electronic voting on amendments to House bills was authorized by the Legislative Reorganization Act of 1970. The power of Democratic committee chairs was diluted and after the reforms members were far more accountable to their constituents than to their colleagues (Bach and Smith 1988, 15). Rohde (1991) argues that the majority party was less likely to be thwarted by southern chairs after the reforms. Since chairs were generally unsupportive of party positions before the reform, the loss of chairs' powers should be associated with an increase in party strength. Furthermore, if being more accountable to a constituency means being more accountable to a partisan constituency, increases in party strength should occur. Electronic voting takes on a value of 0 from the 45th-92nd Congresses and 1 otherwise.

Non-Structural Influences on Party Voting

For theoretical reasons and purposes of replication, the following non-structural factors from previous research are included in the models: percentage of first-term members; dominant faction (or regional party homogeneity); external party conflict; majority party size; and switched party control of the House. The conventional wisdom is that first-term members will be more likely to vote with party leaders than will more senior members because less experienced members look to senior party leaders for guidance on roll calls (among others, see Clausen 1973; Brady, Cooper, and Hurley 1979). Accordingly, an increase in the percentage of first-termers should lead to an increase in party strength. This variable is measured as the percentage of first-term members in the House.

Previous party voting research includes an indicator of the extent of homogeneity of each party across districts. Historically, both southern Democrats and eastern Republicans have had constituencies that differ in important ways from those represented by party members in other regions of the country (see Clausen 1973; Deckard 1976; Brady, Cooper, and Hurley 1979; Rohde 1991).⁶ The size of the dominant faction should impact levels of party strength because faction sizes within each major party are likely to affect party cohesion. Since the key to the dominant faction measure is which of two relevant regional factions is larger, 50% is used as a benchmark figure. Party strength should rise as values diverge from the 50% mark. This variable is measured as the absolute value of the following: 50 minus (100 times the percentage of party members in one of the two party factions).⁷

There are long-standing differences between the two major parties on issues relating to capitalism such as attitudes toward the distribution of wealth, free enterprise system, government financial support for business, and the like (Patterson and Caldeira 1988, 119). Following previous inquiry, increases in external party conflict on capitalism should be associated with increases in party strength (see Brady, Cooper, and Hurley 1979; Patterson and Caldeira 1988; Hurley and Wilson 1989). The indicator of external party conflict is the national party platform measure developed by Ginsberg (1972).⁸

The size of the majority party membership is a basic resource for legislative parties. The larger the size of a party's majority the easier it should be for the party to build majority coalitions (see Sinclair 1983; Patterson and Caldeira 1988). Thus, an increase in the size of the majority party's margin, operationalized as the percentage of House seats held by the majority party, should be associated with increases in party strength.

Because switched party control of the House will emphasize the importance of party, even if only temporarily, through changes in leadership, committees, and the agenda, a variable to control for switches is included in the models (see Sinclair 1977a). This variable takes on a value of 1 when party control switches based on the preceding election and 0 otherwise; a switch in control should be associated with an increase in party strength.

Methodology and Model Specification

This section constructs error correction models (ECMs) to assess the relative importance of long- and short-term forces on party voting. An ECM is a type of time series specification that estimates theoretical relationships that involve the reequilibration of variables toward an evolving equilibrium state (Smith 1992). ECMs simultaneously estimate long-term relationships and short-term effects in a single model and are built

using a sequence referred to as the Engle and Granger (1987) two-step technique. The initial step focuses on long-run relationships between variables and the second step focuses on short-run factors. The character of each time series and the nature of relationships between series must be evaluated to provide diagnostic information necessary for correctly specifying the final multivariate ECMs. First, non-stationary series need to be distinguished from stationary ones. While a non-stationary series trends or drifts upward or downward, a stationary series does not. In other words, if a series is non-stationary, the present value of Y_t is a function of past values of Y (or time). One may think of this as super-autocorrelation where the value of ρ is not significantly different than 1. Of course, as a substantive matter, the trend in Y may not be merely a function of time. The trend itself can be caused by the impact of one (or more) independent variable(s) that is (are) in a long-term relationship with Y (such as the growth in the percentage of states with direct primaries). Second, in order to identify the presence of equilibrium relationships (long-term relationships between series), tests must be performed to determine which non-stationary series follow a common time path and which ones do not. After completion of these steps, the final ECMs are specified.⁹

Figures 1 and 2 show that party strength for both parties is in a long-term decline from the end of the Reconstruction period until around 1970. Democratic and Republican Party strength begin at around the 50% mark in the 45th Congress (1877) and drift downward until the convening of the 91st Congress (1970) at which time they increase at a modest rate.

**Figure 1. Series in Equilibrium
House Democrats**

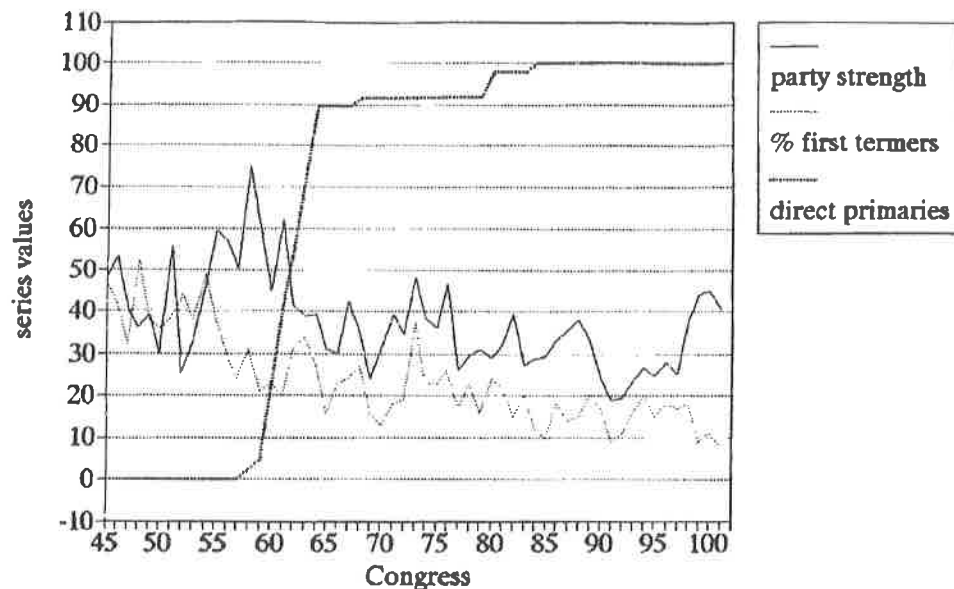
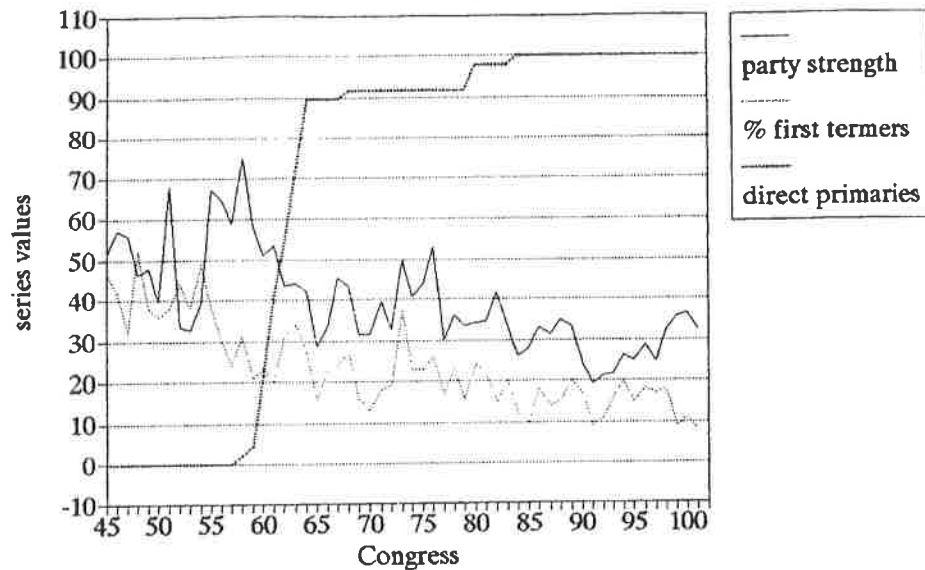


Figure 2. Series in Equilibrium
House Republicans



The Dickey-Fuller (DF) test results reported in Table 1 confirm that Republican Party strength is non-stationary and integrated of order one. The coefficient indicates that Democratic Party strength is near-integrated (or not quite stationary). An incorrect rejection of the null hypothesis is very likely to occur when an integrated or near-integrated series is regressed on another integrated or near-integrated series (see Granger and Newbold 1974; Phillips 1988; Smith 1992). Based on these diagnostics, both dependent series are differenced to avoid the possibility of obtaining a spurious regression result. Since it is much more difficult to find statistically significant results when data are differenced, this introduces a conservative bias into the analysis. Table 1 also reports DF and Augmented Dickey-Fuller (ADF) test results for the independent series.¹⁰ Majority party size and Democratic dominant faction are stationary; they do not trend. Non-stationary independent series are the percentage of states adopting a direct primary system, size of the Rules Committee majority, speakers' index, external party conflict, Republican dominant faction, and percentage of first-termers. Non-stationary series must also be differenced prior to inclusion in the final models. Just as important, these series may be components of cointegrating vectors (i.e., the portion of the ECM that measures long-run equilibrium relationships); that is, some non-stationary series may follow a common path over time with other variables, including the dependent variables, levels of party strength. Series ultimately included in the long-term component of the ECMs must be included based on substantive theoretical reasons as well as on results of formal tests.

Table 1 U. S. House of Representatives.
DF and ADF Integration Tests for the Dependent and Independent Series^a

Variable	DF ^b t-score	Q-stat.	Sig. Level ^c	ADF t-score	Q-stat.	Sig. Level
<i>Dependent Series:</i>						
Democratic Party Strength	-3.81*	23.03	.342	-	-	-
Republican Party Strength	-3.30	16.91	.717	-	-	-
<i>Structural Independent Variables:</i>						
Direct Primaries	-1.58	88.69	.000	-1.76	18.75	.601
Rules Committee	-1.61	31.91	.060	-1.36	28.09	.138
Speakers' Index	-1.17	21.55	.402	-	-	-
<i>Non-structural Independent Variables:</i>						
Majority Party Size	-5.76*	28.71	.121	-4.98*	20.80	.471
Party Conflict	-2.48	16.11	.764	-	-	-
Percent First-Term Members	-3.03	18.13	.641	-	-	-
House Dominant Faction						
(Democrats)	-5.49*	28.89	.117	-4.00*	23.23	.332
(Republicans)	-2.24	29.70	.098	-1.81	24.46	.271

*DF and ADF t-scores are for the lagged level variables. Additional tests indicate that none of the series are I(2).

^a The critical value for the DF test at $\alpha = .01$ is $t = -3.547$ (see MacKinnon 1990). The critical value for all ADF tests except one is $t = -3.544$ at $\alpha = .01$. All ADF tests included 1 lag of the dependent series except for the size of the majority party which required 2 lags of the dependent series.

^b Significance levels are associated with the Ljung-Box Q-statistic. A non-significant Q-statistic indicates that the residuals from the regression are white noise. A significant Q-statistic indicates that the ADF test should be used. If the Q-statistic was nearly significant based on the DF test, the ADF test was conducted to be on the safe side.

* $p < .01$, one tailed test.

Estimates for the cointegration tests, reported in Table 2, indicate that party strength, the percentage of states adopting direct primaries, and the percentage of first-termers, are in a long-term equilibrium relationship for Democrats and Republicans.¹¹ These sets of variables follow a common time path. Figures 1 and 2 illustrate the statistical conclusion that these series are in a long-run equilibrium state. Party strength and the percentage of first-termers stay together over the long run. In the case of party strength and percentage of first-termers on the one hand, and the percentage of states adopting a direct primary system on the other, these variables remain apart over the long run. The relationships are suggestive, but any conclusions about their meaning must be reserved until implementation of the final multivariate models. In any case, these long-term relationships must be controlled for in models that estimate short-term impacts on party strength.

Table 2 U. S. House of Representatives:
Dickey-Fuller Cointegration Test Results^a

LHS Variable	Democrats			Republicans		
	DF t-score ^b	Q-stat. ^c	Sig. Level	DF t-score	Q-stat.	Sig. Level
Party Strength	-5.08**	23.33	.326	-5.12**	11.30	.957
Direct Primaries	-4.99*	26.90	.174	-4.62*	26.84	.176
Percent First-Term Members	-5.49**	12.78	.916	-5.17**	12.56	.923

(Note: All combinations of non-stationary variables were tested for cointegration.)

^a Regressions used to conduct the DF tests include a constant and a trend term.

^b The critical values for the DF tests are $t = -5.02$ at $\alpha = .01$ and $t = -4.34$ at $\alpha = .05$.

^c Residuals generated from all DF tests are white noise.

** $p < .01$, one-tailed test; * $p < .05$, one-tailed test.

To sum up, the diagnostics indicate that the appropriate form for the final ECMs for both parties is represented by the equation below:¹²

$$\Delta Y_t = \theta_0 + \alpha \hat{Z}_{t-1} + \sum_{k=1}^N \beta_{k,t} \Delta Y_{k,t} + \sum_{m=1}^N \beta_{m,t} X_{m,t} + \epsilon_t$$

where $\Delta Y_t = Y_t - Y_{t-1}$;

θ_0 is a constant;

\hat{Z}_{t-1} is the error correction (or long-term component) of the model;

$\Delta Y_{k,t}$ represents short-term differenced variables; and

$X_{m,t}$ represents short-term variables measured in levels.

Empirical Findings

Table 3 reports three sets of parameter estimates for both parties, factors external to the House, factors internal to the House, and a long-term equilibrium component (or error correction portion of the ECM).¹³ Variable names preceded by a delta sign (i.e., Δ) denote variables measured as first differences. All other variables are measured in levels.

Table 3. U. S. House of Representatives: Long and Short-Term Impacts on Changes in Democratic and Republican Party Strength, 1877-1990

Variable	Democrats		Republicans	
	Coefficient	t-score	Coefficient	t-score
<i>External Variables:</i>				
Δ Direct Primaries	-0.50	-1.78**	-0.59	-1.92**
Δ Percent First-Term Members	0.16	0.64	0.25	1.04
Δ External Party Conflict	118.63	1.55*	109.60	1.44*
Dominant Faction ^c	0.36	1.66*	-0.15	-0.51
Unified Party Government	2.76	0.90	5.26	1.71**
<i>Internal Variables:</i>				
Δ Speakers' Index	-1.45	-0.97	-0.70	-0.46
Δ Rules Committee	0.99	0.92	0.74	0.71
Electronic Voting	2.73	0.62	3.90	0.90
New Majority	-5.78	-1.57*	-4.75	-1.28
Majority Party Size	-0.21	-0.79	-0.06	-0.27
Long-term component, \hat{Z}_{i-1}	-0.19	-1.59*	-0.13	-1.76**
Constant ^b	9.18	0.61	2.00	0.14
Adjusted R ²	0.19		0.16	
Degrees of freedom	43		43	
Ljung-Box Q	21.59		16.40	
Ljung-Box significance level ^d	0.42		0.75	

* Variables in a long-term equilibrium relationship in the Democratic model are Democratic Party strength, percentage of states adopting a direct primary system, and the percentage of House members in their first term. In the Republican model they are Republican Party strength, percentage of states adopting a direct primary system, and the percentage of House members in their first term.

^b The model was also run without the constant term. This does not change the statistical significance of any parameter estimates.

^c Democratic Party dominant faction is measured in levels. Republican Party dominant faction is measured as a first difference.

^d Residuals are white noise.

** p < .05, one-tailed test; * p < .10, one-tailed test.

The coefficients for the long-term components, represented by Z_{i-1} , confirm that for both parties the percentage of states adopting direct primaries, the percentage of first-termers, and party strength are in a long-term equilibrium relationship. As illus-

trated by Figures 1 and 2, this means that the levels of variables in the long-term component follow a common time path. The coefficients are statistically significant and the signs are in the expected negative direction.¹⁴ In substantive terms, the coefficient of -0.19 in the Democratic model means that about 19% of a shock (or equilibrium error) at time t will be corrected (hence, the term error correction) at time $t+1$. For example, suppose that a factor was introduced into the model at time t causing one or more of the variables to move out of their equilibrium relationship. The variables previously in equilibrium (at $t-1$) would reequilibrate at a rate of about 19% each time interval from t forward until equilibrium is restored. The results for Republicans indicate that the system of variables, party strength, percent of states adopting direct primaries, and percentage of first-termers, will reequilibrate at a rate of 13% per time period.

The expectation for direct primaries is supported in the short-term as well. In the short-term, the percentage of states adopting a direct primary system is associated with decreases in party strength for both parties. It appears that as individual states instituted direct primaries, levels of party strength declined immediately because delegations from these states became less cohesive.¹⁵ Since the only variance in the independent series occurs between the 57th (1901-02) and 84th (1955-56) Congresses, short-term effects are limited to the period between these Congresses.

Changes in the percentage of first-term membership are unrelated to changes in Democratic or Republican Party strength in the short-term, but as discussed above, the percentage of first-termers is in a long-term equilibrium relationship with levels of Democratic and Republican Party strength and direct primaries. Given the mixed results for the first-term variable in the literature, the absence of significant short-term findings is not a complete surprise (among those finding no impacts for first-termers, see Sinclair 1977b; Patterson and Caldeira 1988; Rohde 1992). But why is there a long-term relationship, but no short-term effects in the data? There may be no direct causal link between these two variables. Instead, other factors may cause levels of first-term membership to trend with levels of party strength. It is likely that the institution of direct primaries worked to depress the percentage of first-term members over time as House elections became less competitive, more candidate-centered/individualistic, and less partisan (see Garand and Gross 1984; Collie 1989). Previous time series models omitting the direct primary factor may therefore generate significant, positive, and spurious results for the first-term variable. To solve this puzzle, the ECMs for both parties were re-specified. The direct primary variable was removed from the long- and short-term portions of the ECMs and the models re-run. There is no change in the pattern of significant coefficients with the exception of the short-term component measuring the effect of Δ percentage of first-term members. This variable, as suspected, is statistically significant in the positive direction for both parties. This result is not surprising. Figures 1 and 2 show that levels of the first-term variable are still in the process of moving to a new (lower) level at the time the direct primary variable begins to move to a new (higher) level. This pattern is most pronounced between the 57th (1901-02) and 62nd (1911-12) Congresses; however, levels of first-term membership drop again in the 64th (1915-16), 65th (1917-18), 69th (1925-26), and 70th (1927-28) Congresses while, at the same time, the direct primary variable continues its movement to a higher level. Not only does this result provide an ad hoc justification for using an ECM to sort out long- vs. short-term effects, it suggests that previous party voting models indicating significance for the first-term variable produce results that are, at worst, misleading and, at best, extremely difficult to interpret.

As external party conflict increases, so does party strength for both parties. This finding provides additional support for the environmental party voting model. Since party platforms are a nexus between party in the electorate and party organization, this result also supports the interpretation that these two components of party are connected to party in the legislature. The composition of the Democratic Party across districts also matters. As the size of the Democratic dominant faction increases, so does Democratic Party strength; however, Republican Party dominant faction is not associated with Δ Republican Party strength. This result means that as the Democratic Party becomes more homogenous across districts (or as the size of the dominant faction grows), the changes are reflected in Democratic party voting levels, but changes in Republican Party homogeneity are unrelated to Republican Party strength. The difference in results across parties might simply be a reflection of the fact that (1) the meaning of the Republican eastern-noneastern distinction is not as pronounced as the regional Democratic split or (2) since the size of the eastern contingent is sometimes quite small and because the noneastern block is cohesive, historically the Republicans have been able to achieve high levels of party cohesion in spite of consistent ideological differences within the party.

When the president and the House are of the same party, on average, Republican Party strength increases by about 5 weighted percentage points. Having a president and House majority of the same party does not significantly increase Δ Democratic Party strength. Brady, Cooper, and Hurley (1979), based on data that terminate in 1968, the low point of party voting since the end of Reconstruction, find a statistically significant relationship in the expected direction for House Democrats and the ECM based on data that terminate in 1990 does not. This seeming discrepancy is explained by the fact that from 1969-1990 Democratic Party strength increases while the frequency of divided government is quite high, establishing a pattern that is contrary to the conventionally hypothesized relationship. From 1969 through 1990 nine of eleven Congresses operated in a divided government environment. Moreover, the divided government hypothesis is a deficient explanation of party voting during the Carter and Reagan administrations. As Rohde (1991) argues, President Carter (unified government) represented a different party faction than the congressional majority and under President Reagan (divided government) the two congressional parties were relatively cohesive and opposed on the issues.

Generally, internal factors do not impact changes in Democratic or Republican Party strength in a significant way. The coefficients for Δ speakers' index, Δ percentage of majority party seats on Rules, majority party size, and electronic voting indicate null findings for both parties. While not significant, the sign on the coefficient for Δ speakers' powers is not in the expected positive direction for either party. When it is difficult to achieve party cohesion on the floor and in committee, one option available to a party is to increase the formal powers of the leadership. Even though the observed relationship is quite weak, it appears that the party leadership sometimes seeks to increase its formal powers at precisely the time the party is having difficulty maintaining discipline and cohesion.

Switched party control does not affect Republican Party strength, but contrary to the hypothesis, switched control is associated with a decrease in Democratic Party strength, reducing it, on average, by over 5 weighted percentage points. Two scenarios could explain the negative relationship. First, new majorities may take control of the House by a slim margin, mediating the potential for increases in party strength. A new

majority may not be able or may not want to propose sweeping or immediate changes in the policy agenda when they take over the reigns of leadership because of their marginal majoritarian advantage. Second, if the majority is large, it can tolerate a number of mavericks who do not consistently vote with the party. The mean majority party size for the 45th through 101st Congresses is 58.8 percent. Because majority party size is below the mean in eight of the twelve switched party Congresses, the first explanation is plausible for two-thirds of the majority switches; four of these eight Congresses convened with majorities that were over one standard deviation below the mean majority party size. Of the four that convened with majority sizes above the mean, two, the 52nd (1891-92) and 54th (1895-96) Congresses, had majority party sizes that were nearly two standard deviations above the mean suggesting that there is some merit to the second explanation as well.

Conclusion

This analysis extends the seminal Brady, Cooper, and Hurley (1979) model to include sixteen additional Congresses and four previously unexamined structural variables. Drawing on theoretical attention to the distinction between long- and short-term factors and the error correction method, new empirical findings are presented to explain trends in House party voting. Direct primaries are shown to have both long- and short-term impacts on Δ party strength. The findings further suggest that the cumulative impact of the direct primary reforms in the states worked to permanently depress levels of party voting. Even though the increase in House party voting since the 91st Congress (1969-70) is important, it is not very impressive when placed in historical context, and it is doubtful that levels of party voting will ever rise to previously high levels.

These findings confirm that factors external to the Congress (both structural and non-structural) matter much more than do internal factors for determining the extent of party voting, but the analysis challenges the conventional wisdom that increases in first-term membership cause party voting levels to rise. While some studies find that increases in levels of first-term membership lead to increases party voting, there is good reason to believe that spuriousness—in this case an incorrect rejection of the null hypothesis—may have resulted from models regressing an integrated variable on another integrated variable. Moreover, this problem was compounded by the omission of the direct primary factor from previous models. Given the keen interest in legislative turnover and the large size of first-term classes in the 103rd, 104th, and 105th Congresses this finding merits further investigation into the effects of first-term members on partisanship and policy. What is needed is study of the conditions under which legislative turnover, especially in a non-realigning scenario, is likely to affect partisanship and party voting.

Notes

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1. Cox and McCubbins develop a congressional party voting measure which they call party leadership votes (and another called agenda votes which is highly correlated

with leadership votes and not substantially different). A party leadership vote is a vote on which the Republican and Democratic leadership oppose one another. Two considerations prevent me from employing the Cox and McCubbins measure in this analysis. First, since the Cox and McCubbins measure is only available from the 73rd Congress (1933-34), the series is not nearly long enough to examine different historical periods. Second, my analysis seeks to more accurately assess the independent impact of formal leadership power on party voting. It makes more sense to model leadership as an independent variable than to muddle party voting and leadership together in one indicator as Cox and McCubbins have done.

2. The Rice index of cohesion is $100|p-(1-p)| = 100|2p-1|$ where p = the proportion of members of the same party voting yea. Thus, if 70 percent vote yea, the index is $70-30=40$ (see MacRae 1970, 179).

3. Legal regulation of convention systems existed in some states prior to the adoption of statewide primaries, but regulation was unable to meet the demand for popular control of the party system (Merriam and Overacker 1928, 60). Some states initially proposed an optional primary and/or local primaries prior to the institution of a mandatory statewide primary covering congressional offices. States with optional primaries or mandated primaries for sub-state elections were not coded as having a statewide (congressional) primary. The following is a list of years in which states adopted direct primaries for congressional elections: 1903 WI; 1904 OR; 1906 LA; 1907 IA, NB, MO, ND, SD, TX, and WA; 1908 IL, KS, and OK; 1909 AZ, CA, ID, NV, NH, and TN; 1910 CO and MD; 1911 ME, MA, NJ, WY, and AL; 1912 KY, MN, NM, and MT; 1913 NY, OH, PA, DE, and FL; 1914 GA, MS, and VA; 1915 IN, NC, SC, VT, and WV; 1922 MI; 1947 AR, UT, and RI; 1955 CT; 1959 AK and HA. (Sources: Merriam and Overacker (1928) and telephone surveys conducted by the author with various state election offices.)

4. Indexing formal powers explicitly avoids the daunting task of operationalizing unique personal factors associated with different speakers. Still, it may be acceptable to emphasize formal powers over informal ones because, as Cooper and Brady argue, institutional context rather than personal skill is the primary determinant of leadership power in the House (1981, 423).

5. Space limitations prevent me from providing the details of ranking/coding decisions. A paper that discusses ranking decisions and observation/index values is available from the author.

6. The southern states are AL, AR, FL, GA, LA, MS, NC, SC, TX, VA, KY, MD, OK, TN, and WV; eastern states are CT, ME, MA, NH, RI, VT, DE, NJ, NY, and PA.

7. For example, if 60% of Democrats are from the non-southern wing and 40% from the southern wing, the value will be 10 (i.e. $|50-100(.60)| = 10$).

8. Ginsberg measures national party platform differences between the two major parties on capitalism. The measure is available through 1968. The last eleven observations in the data set consist of the mean for the first forty-six observations.

9. For a detailed and technical explanation of this procedure see Engle and Granger (1987).

10. Tests for the order of integration are performed on all series except those consisting of binary data. Binary data cannot be non-stationary because it does not trend or drift.

11. To be safe, all possible combinations of integrated variables were tested for cointegration. Table 2 reports only the significant results from the multivariate cointegrating regressions.
12. This model has two distinct advantages over standard ECMs. First, because Schwartz's Criteria (SC) minimizes at one lag no significant loss of degrees of freedom is experienced from adding lagged variables. Since the data are spaced at two-year intervals and SC minimizes at one lag, there is good reason to think that white noise residuals will be generated by a model with no lags of the dependent and independent series. White noise residuals are, in fact, generated by the final models (see Q-statistics reported in Table 3). Second, since it is unnecessary to include blocs of lags to control for autocorrelation, one does not have to rely on F-tests; standard t-tests are valid.
13. Each series included in the long-term component of the models is also included as a differenced variable in the short-term portion of the model. Tests are one-tailed. With d.f.=40, significance levels are 1.30, 1.68, and 2.42 for $p < .10$, $p < .05$, and $p < .01$, respectively.
14. For a model to be stable, the coefficient for the error correction term in the ECM must lie in the interval $(-1,0)$ (see Ostrom and Smith 1990).
15. This inference is tentative; however, owing to the fact that I do not have data in hand to directly and fully explore these possibilities.

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