

## **A Reassessment of Party Voting in the US House**

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## Abstract

### A Reassessment of Party Voting in the US House\*

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This paper examines variability in party voting in the US House for the period 1953-2004. The paper makes a case for a new operational indicator of party voting that explicitly takes into account the number of non-conflictual votes that occur in each Congress. Redefining the percentage of party votes as a percentage of conflictual roll-calls held during the two year period provides a better measure of the degree to which party structures conflict in the US Congress. We use the refined measure of party voting as a dependent variable in an analysis exploring the effect of several variables including those previously identified by earlier studies as generating party voting. Consistent with previous research, our analysis of the contemporary time period (1950s to the present) with better data and more appropriate time series methods provides evidence that party voting on the House floor is a function of both external and internal forces. However, while past studies consistently report that external forces have the greater effect, we find that the short term effects of internal and external forces are similar in magnitude.

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## **A Reassessment of Party Voting in the US House**

It is common to observe that political parties in the US Congress are less disciplined than parties in most parliamentary democracies (Cheibub 2006; Owens 2003). Yet, partisanship in Congress varies over time. For example, from relatively high levels of party voting in the House following the 1932 realignment, we see a long-term secular decline. After reaching a low point in the early 1970s, party voting began to rise and continued to rise through the remainder of the 20<sup>th</sup> century. During the 1990s, party voting in the House reached levels nearly as high as those observed during the New Deal. High levels of party voting continued into the 21<sup>st</sup> century, though there seems to have been some attenuation in recent congresses.

Past research has established the general causes of these trends: party voting in Congress is a function of social and political forces external to the institution as well as the power and behavior of party leaders in Congress. Of these two sets of causes, the evidence indicates that external forces have the stronger effect (Aldrich and Rohde 2000; Brady, Cooper, and Hurley 1979; Cooper and Brady 1981; Patterson and Caldeira 1988; Rohde 1991).

Although this research has contributed much to our understanding of party voting in Congress, several limitations point to the need for additional research. First, the primary focus of this research has been on explaining long secular trends. Understanding the rise and fall of these trends is clearly important, but party voting also varies considerably from one Congress to the next. Second, measures of key external and internal variables used to analyze trends spanning long historical periods were crude, because more appropriate data such as surveys of public opinion were not available. Third, the statistical models in these studies accounted for some, but not all, of the potential challenges to estimation inherent in time series data. Finally, several important studies analyzing these trends were based on data that contain few if any observations after the secular decline in party voting turned around in latter third of the 20<sup>th</sup> century.

Why have levels of party voting in Congress waxed and waned around secular trends? Do the explanations identified in previous studies continue to hold in the contemporary era of party polarization when data to construct better measures of key variables are available? Answering these questions requires an analysis of time series data, paying attention to special problems inherent in such data. This paper seeks to build on this literature using appropriate time series methodology to analyze party voting in the US House of Representatives from the 83<sup>rd</sup> through the 108<sup>th</sup> Congresses (1953 to 2004).

### **Explaining Party Voting in Congress**

The theory explaining how external and internal forces influence party voting in a legislature is straightforward. Party cohesion is a function of the homogeneity of legislators' policy preferences and the power of party leaders to control the alternatives presented to members on the House floor and to reward rank-and-file legislators who support party positions and punish those who don't. If members of a party caucus share preferences, they will naturally vote together if given the opportunity. Under the condition of consensus, coercion is unnecessary and party leaders' primary task is to structure the agenda and the options available to ensure that members have the opportunity to vote on the preferred policies. If homogeneity is high but less than perfect then, in addition to overcoming collective action problems, party leaders will use their powers to entice or intimidate recalcitrant members to support policies preferred by a large majority of the caucus.

The degree of homogeneity of policy preferences within a party caucus is determined largely by electoral forces external to the legislature. In the most disciplined party systems, party leaders' have the power to influence those external electoral forces. Because party leaders exercise substantial control over the electoral environment (e.g., control over party nominations and over the constituency in which a candidate runs), most candidates with incompatible ideologies are filtered out before the election. Thus,

while party leaders in most parliamentary systems have effective tools to punish defectors, coercing members to vote the party line is often unnecessary.<sup>1</sup>

Party leaders in America, in contrast, have little say about who runs under the party label. Instead, voters determine nominations in direct primaries, and to get nominated, elected, and reelected, members of Congress must satisfy local constituency preferences. This electoral system frequently produces diverse policy preferences within each party. If legislators share a party label but represent constituencies with diverse policy preferences, then each party caucus will reflect that diversity and contain a sizeable minority of ideological misfits. A party caucus composed of members with heterogeneous preferences will resist giving party leaders the power to compel members to support party policies that might conflict with local constituency preferences and threaten reelection.

There are periods in American history, however, when electoral changes produce more ideologically homogeneous party constituencies. Under this condition, partisan legislators will represent similar winning electoral coalitions and have similar policy preferences. A more ideologically homogeneous majority party caucus, then, will adopt reforms to empower leaders and expect them to use those powers to forge party discipline to pass key issues on the party agenda (Brady, Cooper, and Hurley 1979; Cooper and Brady 1981; Patterson and Caldeira 1988). David Rohde and John Aldrich have woven this logic into a theory of party voting they call Conditional Party Government (CPG) (Aldrich 1995; Aldrich and Rohde 2000; Rohde 1991).

Extant research provides considerable support for CPG theory.<sup>2</sup> There is no dispute over the meaning of external and internal forces. According to Patterson and Caldeira (1988, 117), external forces as those “that flow from the political environment, reverberating in the shape of collective decision

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<sup>1</sup> There are times when “back benchers” get restless and party leaders need to be more assertive. At rare times, these efforts fail and members of the ruling party vote against the government. In November 2005, for example, the British Labour Government—with a numerical majority of 66 seats in the House of Commons—experienced its first defeat in eight years on a three-line whip, as 63 Labour MPs (one quarter of all backbenchers) deserted their party.

<sup>2</sup> See Patterson and Caldeira (1988), Rohde (1991), and Krehbiel (2000) for references to much of this voluminous literature.

making” while internal variables reflect “endogenous forces displayed in the norms, composition, internal organization and work life of the legislative institution.” Of the external forces that might affect party voting, those derived from the electoral process stand out as especially important.

How to measure party voting and the various external and internal forces that might influence it, in contrast, have generated substantial debate. The most common measures of partisanship in Congress are based on the extent to which members vote along party lines on roll call votes. Although several variations have been developed,<sup>3</sup> a widely used indicator is the percentage of party votes that occur during a year or a Congress. A party vote is defined as one on which a majority of one party vote against a majority of the other party, though the more rigorous 90% vs. 90% standard is used occasionally (Lowell 1908). There have been vigorous challenges to vote-based measures in general (Krehbiel 2000), but congressional scholars have answered this challenge (Cooper and Hering 2003). Behavior on roll call votes is generally accepted as a valid and reliable basis for measuring partisanship.

Vote-based measures aggregate behavior over some period of time. Some studies construct measures for a calendar year, while others aggregate behavior for a Congress (two years). Since electoral variables central to the theory of party voting occur in biennial elections, we believe the Congress is a more appropriate unit of analysis than a calendar year.

Students of party voting in Congress have used several measures of external forces expected to affect party voting over time. Measures of the homogeneity of electoral coalitions include the number of split districts (i.e., members elected from districts won by the presidential candidate of the opposite party) (Patterson and Caldeira 1988), and the extent to which members of congressional parties come from the same region of the country (Brady, Cooper, and Hurley 1979; Patterson and Caldeira 1988) or

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<sup>3</sup> These include an index of party cohesion (Rice 1928), “party strength” which is the interaction of cohesion and party voting (Brady, Cooper, and Hurley 1979; Hurley and Kerr 1997), and “party unity” which is the percentage of times members vote with their party on “party votes” (Allen 2007).

represent districts with similar economic interests such as agriculture vs. industrial (Cooper and Brady 1981). Other variables include electoral change, indicated by the number of freshmen members, conflict between the parties indicated by differences party platforms in presidential elections, and unified or divided government, (Brady, Cooper, and Hurley 1979; Patterson and Caldeira 1988).

Although these measures are crude and indirect, more appropriate alternatives were not available for the long historical periods under investigation. Some of these variables are not useful for our study. Measures based on census data that vary only by decade, and those based on party platforms that vary only every four years cannot explain variation in party voting from Congress to Congress. One measure used in past studies, however, does seem to capture an important aspect of the homogeneity of the electorate. The number of split districts reflects aggregate outcomes of biennial congressional elections and indicates the degree to which voters make homogeneous partisan choices across offices. We expect party voting to increase as the number of split districts declines.

Since our study analyzes party voting since 1953, we can use poll data to construct more direct measures of the strength of the party in the electorate. Studies of voting behavior have long focused on the effect of partisan identification (Campbell, et al. 1960). In elections since 1952, the American National Election Study (ANES) has surveyed national samples of Americans. In each survey, respondents were asked if they identify with either of the major political parties and if they do if that identification strong or weak. Analysis of more than 50 years of survey data consistently shows that compared to weak partisans and independents, strong party identifiers are

- more likely to follow political developments
- more knowledgeable about politics,
- more likely to participate in politics including voting in primaries, contributing money, working on campaigns;
- more ideological in their issue orientations; and

- more likely to support their party's candidates for Congress and the presidency.

Thus, the percentage of strong partisans is a direct indicator of how strongly partisan the electorate is. The percentage of strong partisans in the electorate declined from more than one-third in the 1950s to about one-fourth the 1970s, but has climbed back up to around 30% in recent decades. The increase in the number of strong partisans was not only noticed, but has been tied to the increasing polarization between the parties (Fleisher and Bond 2001; Stonecash, Brewer, and Mariani 2003). Thus, we hypothesize that increases in the number of strong partisans in the electorate leads to more party voting in Congress.

Measuring rules and the power of party leaders to control the congressional agenda and structure the terms of floor debate have been even more problematic. The approach has been to use dummy variables to indicate whether the power of the Speaker or the majority party caucus was strong and centralized (1 or 0 for each) based on a reading of the public record (Brady, Cooper, and Hurley 1979; Cooper and Brady 1981), and to indicate years following rules changes (Patterson and Caldeira 1988). Such measures are adequate to reveal shifts in voting trends following changes in the Speaker or rules, but they cannot explain the ebb and flow of party voting from one Congress to the next. In effect, models using such variables to measure internal forces assume that short term fluctuations are random or irrelevant, and that real changes in levels of party voting occur only when there is a change in Speaker or rules. Changes in personalities and formal rules certainly have the potential to affect party voting, but how leaders use the tools available to them matters more. In short, it's leaders' behavior not paper reforms or the Speaker's name that determines the level of party voting. What is needed is a measure of the extent to which leaders actually exercise control over the process.

One such measure is the percentage of closed and restrictive rules. Since the reforms of the early 1970s, the majority party leadership has gained greater control of the Rules Committee and therefore the rules that govern how legislation is handled on the House floor. Having the ability to limit amendments

does not mean that the leadership will actually use these powers to control floor procedures. If the majority party leadership does not feel threatened by having a more open process, then we believe that they will be less likely to use the powers they have. The actual use of the powers signifies that the minority party poses a greater threat to the majority party's agenda (Owens and Wrighton 2007). Thus, we hypothesize that the greater percentage of rules that are restrictive the greater the incidence of party voting. Owens (n.d.) and Wolfensberger (2007) have provided data on the percentage of rules that limit the introduction of amendments on the floor of the House.

## **Methods**

### **Dependent Variable**

The dependent variable is the percentage of party votes in each of the 26 Congress from the 83<sup>rd</sup> to the 108<sup>th</sup> (1953-2004). A party vote is one on which a majority (or more) of Democrats vote against a majority (or more) of Republicans. Defining votes on which a bare majority of each party oppose one another is a minimal standard for a partisan vote. This cut point classifies roll calls on which nearly half of each party votes together with those roll calls on which each party is highly unified on opposite sides of a vote. Some scholars have opted for more rigorous criteria (e.g., at least 90% vs. 90%) to define party votes. Any cut-point, however, is arbitrary, and using higher levels also groups votes reflecting very different behavior together. A vote on which 100% of the majority party votes against 75% of the minority party is still a highly partisan split that the 90% cut points will miss. Defining a party vote in terms of the behavior of partisan majorities has become the norm.

Figure 1 plots the percentage of party votes in the House since the 83<sup>rd</sup> Congress (1953-1954) calculated in two different ways. The usual way calculates the percentage of votes on which partisan majorities were opposed as a percentage of all roll call votes in that Congress. The measure based on all votes shows the well-documented pattern of party voting. Levels of party voting drifted downward through the 91st Congress (1969-1970), then reversed and climbed to a high point in the 104<sup>th</sup> Congress

(1995-1996) when nearly two-thirds of House votes split along party lines. Contrary to numerous reports that party conflict in Congress became more rancorous in recent years, however, this measure shows a precipitous drop since the mid-1990s, with party votes appearing on less than one-half of roll calls in the 106<sup>th</sup> through the 108<sup>th</sup> Congresses (1999-2004).

[Figure 1 about here]

A closer look at the data suggests that the discrepancy results from calculating party votes as a percentage of all roll calls in a Congress. The denominator in this measure is a mix of three types of votes:

1. Conflictual issues that divide members by party—i.e., party majorities oppose one another;
2. Conflictual issues that divide members along some dimension other than party—e.g., ideology such as the bipartisan “conservative coalition” of Republicans and southern Democrats (Brady and Bullock 1980; Manley 1973); and
3. Consensual issues that engender little or no conflict—i.e., unanimous or near unanimous votes.

Obviously, removing consensual votes from the denominator will increase the percentage of votes that are considered partisan. If the proportion of consensual votes in the mix is constant over time, the error introduced into the estimate of party voting will be constant in each Congress and trends based on the two calculations will be parallel. Significant variability in the proportion of near unanimous votes over time, however, introduces varying amounts of error which can distort the trends.

We believe that calculating party votes without consensual votes in the denominator produces a more accurate estimate of what we mean by *party* voting. The concept of partisanship suggests conflict—a particular type of conflict. A measure of party voting, therefore, should indicate what proportion of the conflict in a legislature at a particular point in time is *partisan* conflict. An increase in the number of non-conflictual votes will make it seem as if party played less of a role in structuring conflict on the

House floor, when in fact the amount of partisan structuring on conflictual decisions may not have changed.

We recalculated the percentage of party votes with near unanimous votes (90% or more on the winning side) removed from the denominator. Figure 1 also shows the trend based on the modified measure. The two trends generally trace parallel paths for most of the time period, with the series that excludes near unanimous votes averaging about 17% to 18% higher than the one based on all votes. Notice, however, that the trends begin to diverge after the 105<sup>th</sup> Congress (1997-1998), with the average difference between the two measures increasing to about 28% in the three most recent Congresses (1999-2004). This divergence occurs because the proportion of non-conflictual roll calls increased substantially in recent years. During the 106<sup>th</sup>, 107<sup>th</sup>, and 108<sup>th</sup> Congresses, an average of about 38% of House roll calls were near unanimous, compared to about 27% in the earlier Congresses.

Thus, instead of a decline in partisanship in recent Congress as suggested by the traditional measure, we see that party conflict relative to all types of conflict has fluctuated between 70% and 80% since the 98<sup>th</sup> Congress (1983-1984). The level of party conflict on the House floor since the mid-1980s is higher than at any time during period under investigation, with only the 88<sup>th</sup> and 89<sup>th</sup> Congresses exhibiting similar levels of partisanship. This result is much more consistent with journalistic reports of elevated partisanship in recent years. Consistency with journalists' impressions derived from unscientific observation, of course, does not justify modifying the measure. But we believe that the revised measure based on the level of conflict on the House floor is a more accurate indicator of what is generally meant by the concept of party voting. Journalists get it right sometimes. Thus, we use the revised measure of *Party Votes* as the dependent variable.

### **Independent Variables**

We construct measures to capture two types of electoral forces that might influence party voting in Congress. The *Strength of Partisanship in the Electorate* is based on a factor analysis of two

variables—the percentage of strong partisans (strong Democrats + strong Republicans) in the electorate in each biennial election, and the percentage of the respondents whose vote in the House election reflected a defection from their party identification (American National Election Studies n.d.). The factor score ranges from a low of -2.3 to a high of 2.5 with higher scores indicating a more partisan electorate. The electoral partisanship variable is centered on a mean of 0 with a standard deviation of 1.3. A plot of this measure of electoral partisanship conforms to our prior expectations of developments in the electorate over time. As shown in figure 2, electoral partisanship declined through the 1978 election but has since been trending upward.

[Figure 2 about here]

In each congressional election, we also determined the number of districts that produced split results. In presidential election years, a district was coded as split if the winning presidential candidate in the district was of a different party than the member elected to Congress. In midterm elections, we noted whether the party winning the House seat was different from the party that won the presidential vote in the district in the previous presidential election. For example, in 2006 a district won by a Democrat would be counted as a split district if that district had been won by George W. Bush in the 2004 presidential election.<sup>4</sup> Since 1952, the number of members elected from split districts ranged from a low of 59 in 2002 (election of the 108<sup>th</sup> Congress) to a high of 240 in 1974 (election of the 94<sup>th</sup> Congress) with an average of 133 split districts (standard deviation of 44).

[Figure 3 about here]

The type of rule reported by the Rules Committee is among the most important internal forces that influence party voting in Congress. These special rules govern consideration of legislation on the House floor by setting the date of consideration, the length of debate, and most importantly, what

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<sup>4</sup> The 1960 presidential vote in the redrawn 1962 congressional districts is not available. To avoid losing the case, we assumed that the value in 1962 was the same as in 1960. Clearly this introduces measurement error. To deal with the introduction of such error, we use robust standard errors in all statistical models.

amendments, if any, are in order. Rules can be open, closed, or structured. An open rule permits any germane amendment, and gives the minority party the greatest latitude to pursue its policy and political goals. Closed rules prohibit all amendments, while structured rules permit only certain amendments. A rule restricting which amendments will be voted on is a powerful tool that majority party leaders can use to structure floor procedures for maximum partisan advantage. By deciding which issues will be considered and how the issues will be framed, party leaders are able to control the floor and prevent the minority from offering amendments that might place majority party members in an awkward position. Thus, the percentage of closed and restrictive rules is a behavioral indicator of party leaders' efforts to structure floor debate.

Information on restrictive rules is based on a reading the text of House Resolutions that appeared in the *Congressional Record* (Owens n.d.; Wolfensberger 2007). Closed rules are defined as those that prohibit all amendments, permit only committee amendments, or permit only amendments to be offered by the reporting committee chair or his/her designee; restrictive rules are those that limit amendments otherwise in order but do not preclude them completely. A rule that is closed with respect to one or more titles and open with respect to all other titles is also classified as restrictive. The use of complex rules has increased since the 1970s (Bach 1981). Because complex rules include a combination of restrictive, expansive, or structuring provisions, their increased use presents some ambiguity in classifying rules as restrictive. We classify complex rules as "restrictive" depending on whether their primary effect was to restrict or permit floor amendments. Our measure is the percentage of special rules that are closed and restrictive in each Congress.<sup>5</sup> During the time period of this study, restricted rules ranged from a low of approximately 4% of all rules to a high of 74%.

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<sup>5</sup> Owens (nd) coded rules for the 83<sup>rd</sup> through the 105<sup>th</sup> Congress (1997-1998). Data for more recent Congresses are from Wolfensberger (2007). To check reliability, we looked at scores for three Congresses (103<sup>rd</sup>, 104<sup>th</sup>, and 105<sup>th</sup>) that were coded independently by Owens and Wolfensberger. The differences were quite small, giving us confidence that this is a reliable measure of the type of rule used on the House floor.

## Results

Following the way previous studies analyzed party voting, we begin with an OLS regression analysis of the effects of levels of electoral partisanship, split districts, and restrictive rules on the percentage of conflictual votes that produced partisan divisions. Table 1 presents the results.

[Table 1 about here)]

The results indicate that party voting in the contemporary House of Representatives was influenced by external electoral variables as well as the percentage of rules that limited floor amendments. All three variables are statistically significant and the model explains 70% of the variance in party voting. This model suggests that a one standard deviation increase in the partisanship of the electorate is associated with a 4% increase in party voting. A decline of similar magnitude in the number of members elected from split districts leads to about a 27% increase in party voting. The percentage of restrictive rules also appears to have the expected effect, with a one standard deviation increase (about 20%) associated with approximately a 9% rise in party voting. Thus, based on these results, one would conclude that the evidence supports the conclusion of past studies that party voting in the House flows from a combination of internal and external variables, but external forces are stronger.

While these findings are consistent with our prior understanding of the forces affecting party voting in the House, we need to exercise caution before accepting the results of an OLS analysis of time series data. Although previous research corrected autocorrelation in the data (Patterson and Caldeira 1988, 124 note 34), this is only one of the maladies that commonly afflict time series data. Another problem arises if variables in the model are non-stationary—i.e., they are the product a common trend over time. If variables are non-stationary, OLS relationships that appear to be strong and statistically significant may be spurious (Granger and Newbold 1974). Only if the variables are stationary—i.e., their

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distributions do not depend on time and they have a constant mean over time (Kennedy 1998)—can we have confidence that the results reported above are real. Correcting for autocorrelation will not cure the problem of non-stationarity. Thus, we need to determine if the variables are stationary, and if they are not, make appropriate corrections in the model.<sup>6</sup>

Table 2 presents the results of the Dickey-Fuller test for the variables in our analysis. Dickey-Fuller statistics were estimated under a variety of conditions (trend, no trend and no constant) and with 0, 1 or 2 lags. Where the tests indicated that the appropriate test required the use of lags the Augmented-Dickey-Fuller statistics were examined. Finally, because they are more efficient, tests for stationarity employ the critical values developed by MacKinnon (1991) rather than those typically associated with the Dickey-Fuller test.

[Table 2 about here]

The Dickey-Fuller tests indicate that three of the four variables (party voting, the number of members elected from split districts, and the percentage of restricted rules) are non-stationary. Only for the measure of electoral partisanship was the level of the Dickey-Fuller statistic under any of the tests conditions sufficient to reject the null hypothesis of non-stationarity. For non-stationary variables, the appropriate technique is to generate first differences in the variable and regress the change in X on the change in Y. To explore whether the non-stationary variables are similarly integrated we need to check the stationarity of the variables after they are differenced. If each of the differenced variables are stationary, then we can conclude that the variables are similarly integrated at order 1 (I(1)). The results indicate that the non-stationary variables in our model are similarly integrated at order 1.

Stationary variables are measured in levels included in the model measured in levels. Converting variables to change scores, however, creates the conceptual problem of removing any long term

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<sup>6</sup> Recent econometric texts discuss how to model the relationship between non-stationary variables (see Greene 2000). An excellent compilation of articles is in Engle and Granger (1991). Several papers in Freeman (1992) discuss problems associated with non-stationary variables in political science research.

relationship between the variables. The revised analysis tests whether a short term change in  $X_{it}$  significantly effects the change in  $Y_i$ . To explore whether variables have a long term relationship, we need to test for co-integration. Co-integrated variables are thought to have a long term equilibrium relationship in which a shock to the independent variable will continue to be felt in the dependent variable for some period longer than the current one.

Engle and Granger (1987) have generated tests to explore whether two or more non-stationary variables are co-integrated. The test involves a two-step process with the first step focusing on analyzing the appropriate Dickey-Fuller statistic on the residuals of the equation with the dependent and independent variables measured in levels. Since only non-stationary variables can be co-integrated, only the dependent variable (party voting) and two of the independent variables (number of members elected from split districts and restricted rules) are tested for co-integration. If the test shows that the residuals from the regression of non-stationary variables are stationary, then the variables are co-integrated. The results are presented in Table 3.

[Table 3 about here]

The results from the Dickey-Fuller test on the residuals indicate that party voting and restricted rules are co-integrated, but that there is no co-integration between the frequency of members elected from split districts and party voting on the House floor. Given the presence of co-integration, we include in our statistical model an error correction term which tests whether the co-integrated variable is statistically significant. The error correction term—i.e., the lagged residual from the levels equation used to test for co-integration—is entered into the model along with differenced variables and the stationary variables measured in levels.

Thus, we estimate the following model:

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$$\Delta \% \text{Party Votes} = a_0 + b_1 \Delta \% \text{Split Districts} + b_2 \text{Electoral Partisanship} + b_3 \Delta \% \text{Restricted Rules} + b_4 \text{Error Correction Term}$$

The coefficient,  $b_4$ , must fall between -1 and 0 for the model to be stable. If the coefficient for the error correction term is significant, it is interpreted as the percentage of a shock in the independent variable that will be corrected in the dependent variable in each successive time period until the variables return to their equilibrium state.

The results of the model including the error correction component are presented in table 4. The model explains a substantial share of the change in party voting ( $R^2 = .44$ ), and a post estimation analysis of the residuals (using the Portmanteau test for white noise) reveal no problems with the residuals.

[Table 4 about here]

Of the two measures of electoral forces in the electorate, only the strength of electoral partisanship is statistically significant from zero. Substantively, a one standard deviation increase in the strength of partisanship is associated with about a 2.2% rise in party voting over the levels generated in the prior Congress. Recall that the OLS model indicated that the other electoral variable, the percentage of split districts, was also significantly related to party voting. Indeed, in the OLS model this variable exerted the strongest substantive impact on party voting. After correcting for non-stationarity in this variable, we find that short term changes in the frequency that elections produce members from split districts has no direct bearing on party voting on the House floor. This result illustrates that using OLS to estimate relationships with non-stationary variables can produce erroneous results.

Internal forces measured by the use of restricted rules also affect party voting on the House floor. The error correction model indicates that the relationship between restricted rules and party voting consists of both a short and a long term component. The coefficient for the short term change in the percentage of restricted rules implies that more rules limiting floor amendments produces a significant increase in party voting. A one standard deviation increase in restricted rules (about 5.9%) leads to about

a 2.5% increase in the change in party voting. The results also indicate that majority party leaders' decisions to restrict floor amendments not only affect party voting in the current Congress, but in the subsequent Congresses as well. The coefficient for the error correction term is .499, suggesting that about half of the effect of an increase in the percentage of restricted rules is dissipated in the current Congress and then dissipates at the rate of 50% in each subsequent Congress until the entire shock had been absorbed—i.e., 50% remaining at  $t+1$ ; 25% remaining at  $t+2$ , 12.5% at  $t+3$ ; 6.25% at  $t+4$ ; 3.1% at  $t+5$ ; etc.). It is reasonable to expect that the effects of partisan behavior will have a long term effect. An often repeated adage in Texas politics advises to “forgive and remember.” Any ill will resulting from rules preventing the minority party from presenting amendments is likely to linger for several Congresses. The coefficient for the long term component in this model is relatively large, indicating that the lingering effect resulting from the use of restrictive rules has largely disappeared after three Congresses.

### **Conclusions**

Thus, consistent with previous research, our analysis of the contemporary time period (1950s to the present) with better data and more appropriate time series methods provides evidence that party voting on the House floor is a function of both external and internal forces. These findings speak to the recent debate about the causes of party polarization in the US Congress. The research generally recognizes that changes in the electoral process have had an enormous impact on producing greater party polarization. On this score, a variety of developments, including the electoral realignment in the south (Rohde 1991), the replacement of ideological misfits by members more in tune with the dominant ideological positions of the parties (Fleisher and Bond 2004; Thierault 2003), the pronounced role played by party activists and allied interest groups (Sinclair 2006), and the growing consistency between partisanship, ideological self-definition, issue position and vote choice (Bartels, 2000; Jacobson, 2000).

Our finding that the recent increase in the strength of partisanship in the electorate contributed to heightened levels of party voting is consistent with this literature.

While there is considerable consensus in the literature that constituency based changes have played a major role in heightening party polarization, there is much less agreement on the effect of the changes in congressional rules giving party leaders greater control over the legislative process. Past studies consistently report that external forces have the greater effect, but we find that the short term effects of internal and external forces are similar in magnitude. The finding of a greater relative impact of internal forces in our study may be due in part to more appropriate estimation techniques. Recall that the uncorrected OLS analysis indicated that external electoral forces had a larger effect. We urge caution in this interpretation because the results are quite sensitive to model specification. Nonetheless, we believe the error correction model used in this analysis is more appropriate and likely produces more accurate results than those based on OLS analysis that corrects only for autocorrelation.

Another explanation for the finding of a greater relative impact of internal forces is that we actually measure the propensity of leaders to use their legislative advantages. Previous studies use cruder measures reflecting changes in formal rules. Such measures indicate only whether the rules authorize leaders to take some action to enhance party discipline. Such measures are constant across all Congresses between reforms that occur only infrequently. Our measure of leaders' behavior in actually using the tools available to them varies from Congress to Congress, thereby reducing the error in measuring internal forces.

Rules, of course, are important, and reforms enhancing leaders' powers surely affect their behavior. One of the most significant powers afforded to party leaders by reforms adopted since the 1950s is greater control over the Rules Committee. The power to control the rules defining which amendments, if any, are to be considered on the floor allows majority party leaders to thwart minority party efforts to achieve policy and political goals. The evidence is quite clear that the use of restrictive

rules has grown greatly since the 1950s. In addition to the short-term effect, our findings indicate the use of restricted rules also exerts a long term influence on floor voting patterns that persists in subsequent Congresses. At least in the contemporary period, party leaders' behavior influences the degree of party voting as much as, and perhaps more than, electoral forces.

The literature seeking to explain the increase in restrictive rules has produced several papers reaching contradictory conclusions (Cox and McCubbins 2005, Dion and Huber 1997, Krehbiel 1997a, 1997b). While we personally feel most comfortable with a partisan explanation for the increase in restrictive rules, the point of this paper is not to directly enter this debate regarding the forces that drive the use of restrictive rules. Rather, our purpose is to look at the relationship between the use of restrictive rules and the types of voting patterns that emerge on the House floor. Our findings reveal that variation in partisan voting patterns on the House floor over time is directly related to the percentage of rules that restrict floor amendments. We believe the mechanism that produces more partisan voting is party leaders' actions keep alternatives off the floor that might split the majority party, either because some members of the majority sincerely prefer another alternative or they are strategically hesitant to vote against an alternative that might be popular back home. The use of restrictive rules also provokes more cohesive opposition because the minority party is unable to offer alternatives that may be attractive to enough majority party members to prevail on the floor or provide some political advantage in the next election. Structuring the floor decision making process to block meaningful minority participation could also explain the finding that the effect of using restrictive rules persists for several subsequent Congresses.

In the end, of course, elections are important because it is elections that determine how homogeneous preferences are within each party caucus. Without relatively homogeneous preferences, the majority party caucus is unlikely to give leaders the tools they need to pressure members to support policies that are inconsistent with local constituency preferences (Aldrich and Rohde 2000, Rohde 1991).

But rules and how majority party leaders use the rules, matters as well. And at least since mid-20<sup>th</sup> century, the use of rules to limit amendments seems to matter about as much as external electoral forces.

## References

- Aldrich, John H. 1995. *Why Parties: The Origin and Transformation of Political Parties in America*. Chicago: University of Chicago Press.
- Aldrich, John H., and David W. Rohde. 2000. "The Consequences of Party Organization in the House: The Role of the Majority and Minority Parties in Conditional Party Government." In *Polarized Politics: Congress and the President in a Partisan Era*, ed. Jon R. Bond and Richard Fleisher. Washington, DC: CQ Press.
- Allen, Jonathan. "Cohesion the Key to Minority's Clout." *CQ Weekly Online* (December 29, 2006): 32-36.  
<http://library.cqpress.com/cqweekly/weeklyreport109-000002421980> (accessed March 15, 2007).
- American National Election Studies. N.d. *The ANES Guide to Public Opinion and Electoral Behavior*. Ann Arbor, MI: University of Michigan, Center for Political Studies [producer and distributor]. [www.electionstudies.org](http://www.electionstudies.org) (March 18, 2007)
- Bach, Stanley. 1981. "The Structure of Choice in the House of Representatives: The Impact of Complex Special Rules." *Harvard Journal on Legislation* 18: 553-602.
- Bartels, Larry M. 2000. "Partisanship and Voting Behavior, 1952-1996." *American Journal of Political Science*, Vol. 44 (Jan.): 35-50.
- Binder, Sarah A. *Stalemate. Causes and Consequences of Legislative Gridlock*. Washington, DC.: The Brookings Institution Press.
- Brady, David W., and Charles S. Bullock, III. 1980. "Is There a Conservative Coalition in the House?" *Journal of Politics* 42 (May): 549-559.
- Brady, David W., Joseph Cooper, and Patricia A. Hurley. 1979. "The Decline of Party in the U.S. House of Representatives 1887-1968." *Legislative Studies Quarterly* 4 (August): 381-407.
- Campbell, Angus, Philip Converse, Warren Miller, and Donald Stokes. 1960. *The American Voter*. New York: Wiley.
- Cheibub, Jose Antonio. 2006. *Presidentialism, Parliamentarism and Democracy*. Cambridge and New York: Cambridge University Press.
- Cooper, Joseph, and David W. Brady. 1981. "Institutional Context and Leadership Style: The House from Cannon to Rayburn." *American Political Science Review* 75 (June): 411-25.

- Cooper, Joseph, and Martin Hering. 1981. "Proximity Voting Versus Party Effects in Congressional Decision Making."  
Unpublished manuscript. Johns Hopkins University.
- Cox, Gary W. and Mathew D. McCubbins. 2005. *Setting the Agenda: Responsible Party Government in the U.S. House of Representatives*. NY: Cambridge University Press.
- Dion, Douglas and John D. Huber. 1997. "Sense and Sensibility: The Role of Rules." *American Journal of Political Science*, 41 (July): 945-957.
- Engle, Robert F. and Clive W. J. Granger. 1991. *Long-Run Economic Relationships: Readings in Cointegration*. NY: Oxford University Press.
- Fleisher, Richard, and Jon R. Bond. 2001. "Evidence of Increasing Polarization among Ordinary Citizens." In *American Political Parties: Resurgence and Decline*, ed. Jeffrey E. Cohen, Richard Fleisher, and Paul Kantor. Washington, DC: CQ Press.
- Fleisher, Richard, and Jon R. Bond. 2004. "The Shrinking Middle in the US Congress." *British Journal of Political Science* 34 (Jul): 529-451.
- Freeman, John R. 1992. *Political Analysis, Volume 4*. Ann Arbor, MI: University of Michigan Press.
- Granger, Clive W. J. and Paul Newbold. 1974. "Spurious Regressions in Econometrics." *Journal of Economics*, 2: 111-120.
- Greene, William H. 2000. *Econometric Analysis*, 4<sup>th</sup> edition. Englewood Cliffs, NJ: Prentice Hall.
- Hurley, Patricia A. and Brink Kerr. 1997. "The Partisanship of New Members in the 103<sup>rd</sup> and 104<sup>th</sup> Houses." *Social Science Quarterly* 78 (December): 992-1000.
- Jacobson, Gary C. 2000. "Party Polarization in National Politics: The Electoral Connection." In *Polarized Politics: Congress and the President in a Partisan Era*, ed. Jon R. Bond and Richard Fleisher. Washington, DC: CQ Press.
- Kennedy, Peter. 1998. *A Guide to Econometrics*, 4<sup>th</sup> edition. Cambridge, MA: MIT Press.
- Krehbiel, Keith. 1997b. "Rejoinder to "Sense and Sensibility." *American Journal of Political Science*, 41 (July): 958-964.
- Krehbiel, Keith. 1997a. "Restrictive Rules Reconsidered." *American Journal of Political Science*, 41 (July): 919-944.
- Krehbiel, Keith. 2000. "Party Discipline and Measures of Partisanship." *American Journal of Political Science* 44 (April): 206-21.
- Lowell, A. Lawrence, 1908. *The Government of England*. New York: Macmillan, 1908, Vol. II.
- MacKinnon, James. 1991. "Critical Values for Cointegration Tests." In Robert F. Engle and Clive W. J. Granger (eds.) *Long-Run Economic Relationships: Readings in Cointegration*. NY: Oxford University Press.

- Manley, John. 1973. "The Conservative Coalition in Congress." *American Behavioral Scientist* 17 (November-December): 223-47.
- Owens, John E. 2003. "Explaining Party Cohesion and Discipline in Democratic Legislatures: Purposiveness and Contexts", *The Journal of Legislative Studies*, 9/4 (September – December): 12-40.
- Owens, John E. N.d. "Coding of House Rules Affecting the Amending Process." The University of Westminster. Typescript describing coding rules.
- Owens, John E. and J. Mark Wrighton. 2007. "Procedural Control and Majority Party Entrenchment In The U.S. House: An Explanation of Rules Restrictiveness Over Time. Paper presented at the 65<sup>th</sup> Annual Meeting of the Midwest Political Science Association, April 12 - 15, 2007, Chicago, IL
- Patterson, Samuel C. and Gregory A. Caldeira. (1988). "Party Voting in the United States Congress." *British Journal of Political Science* 18 (Jan): 111-131.
- Rice, Stuart A. 1928. *Quantitative Methods in Politics*. New York: Alfred A. Knopf.
- Rohde, David. 1991. *Parties and Leaders in the Post Reform House*. Chicago: University of Chicago Press.
- Sinclair, Barbara. 2006. *Party Wars: Polarization and the Politics of National Policy Making*. Norman, OK: University of Oklahoma Press.
- Stonecash, Jeffrey M., Mark D. Brewer, and Mack D. Mariani. 2003. *Diverging Parties: Social Change, Realignment, and Party Polarization*. Boulder, CO: Westview.
- Theriault, Sean M. 2003. "The Case of the Vanishing Moderates: Party Polarization in the Modern Congress." Paper presented at the Midwest Political Science Association Annual Meeting at Chicago, Illinois.
- Wolfensberger, Donald R. 2007. "Comparative Legislative Data for the House of Representatives: 103<sup>rd</sup>-108<sup>th</sup> Congresses (1993-2004). The Congress Project. Washington: DC: Woodrow Wilson Center.
- <http://www.wilsoncenter.org/topics/docs/profile109.pdf>.

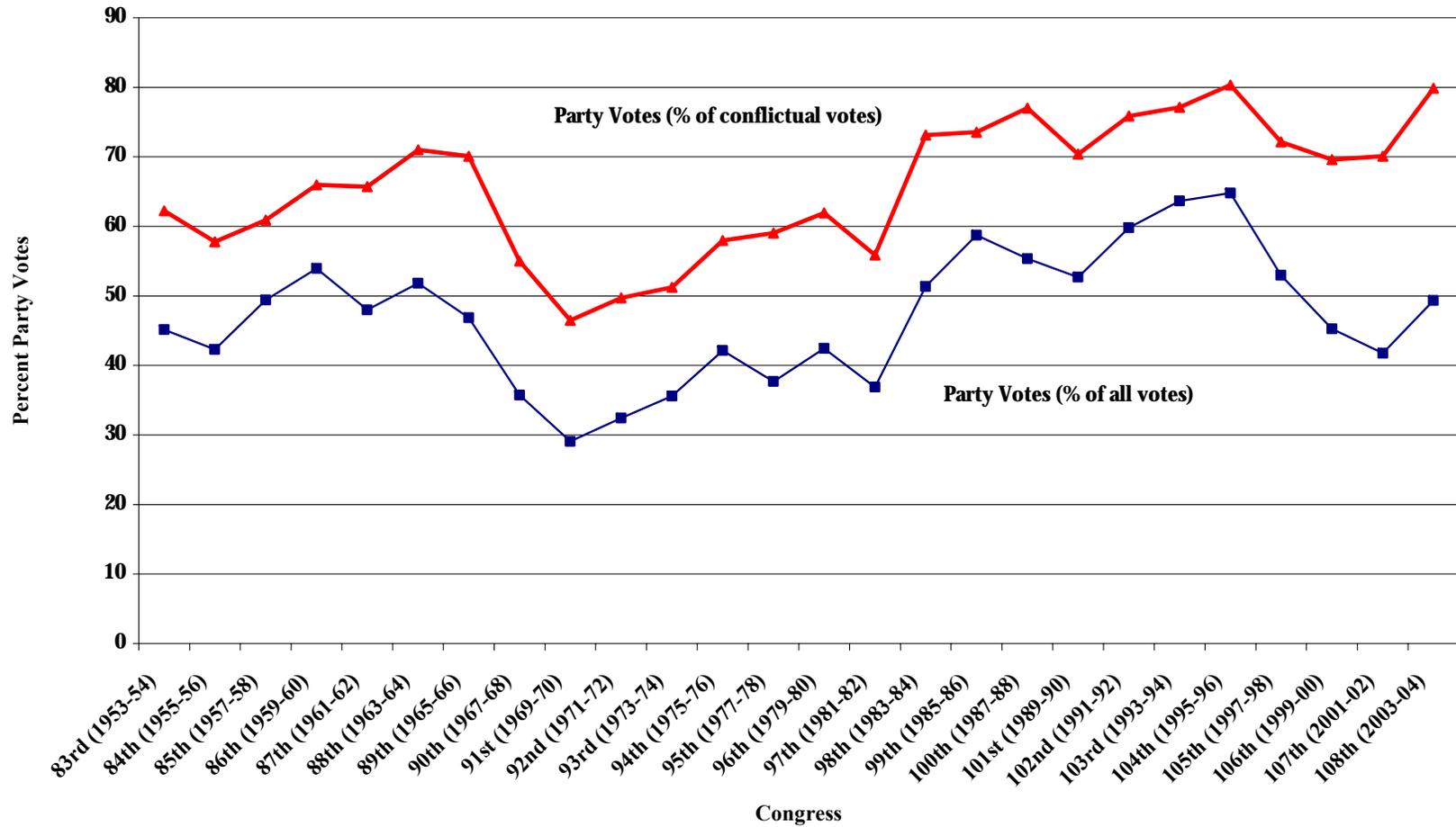
<b>Table 1</b>					
<b>OLS Regression of External and Internal Variables on Party Voting in the US House of Representatives, 83<sup>rd</sup> to 108<sup>th</sup> Congress</b>					
	<b>Coef.</b>	<b>Robust Std. Err.</b>	<b>t</b>	<b>P&gt;t</b>	<b>Effect of 1 sd change</b>
<b>% Split Districts</b>	.063	.031	2.03	0.055	27.72
<b>Electoral Partisanship</b>	3.115	1.004	3.10	0.005	4.08
<b>% Restricted Rules</b>	.466	.082	5.70	0.000	9.45
<b>Constant</b>	45.252	6.229	7.27	0.000	
<b>Dep Variable = Congressional Party Voting</b>					
R-squared = 0.70					
N = 25					

<b>Table 2</b>				
<b>Dickey-Fuller Test for Stationarity of Variables</b>				
<b>Variable</b>	<b>Test</b>	<b>Test Statistic</b>	<b>Significant at .05 (MacKinnon p-values)</b>	<b>Conclusion</b>
<b>Party Voting</b>	D-F test with trend lags (0)	-2.177	No	Non-Stationary
<b>Electoral Partisanship</b>	D-F test w/ no-constant lags (0)	-2.289	Yes	Stationary
<b>% Split Districts</b>	A-D-F test notrend lags (1)	-2.745	No	Non-Stationary
<b>% Restricted Rules</b>	D-F test with trend lags (0)	-1.215	No	Non-Stationary

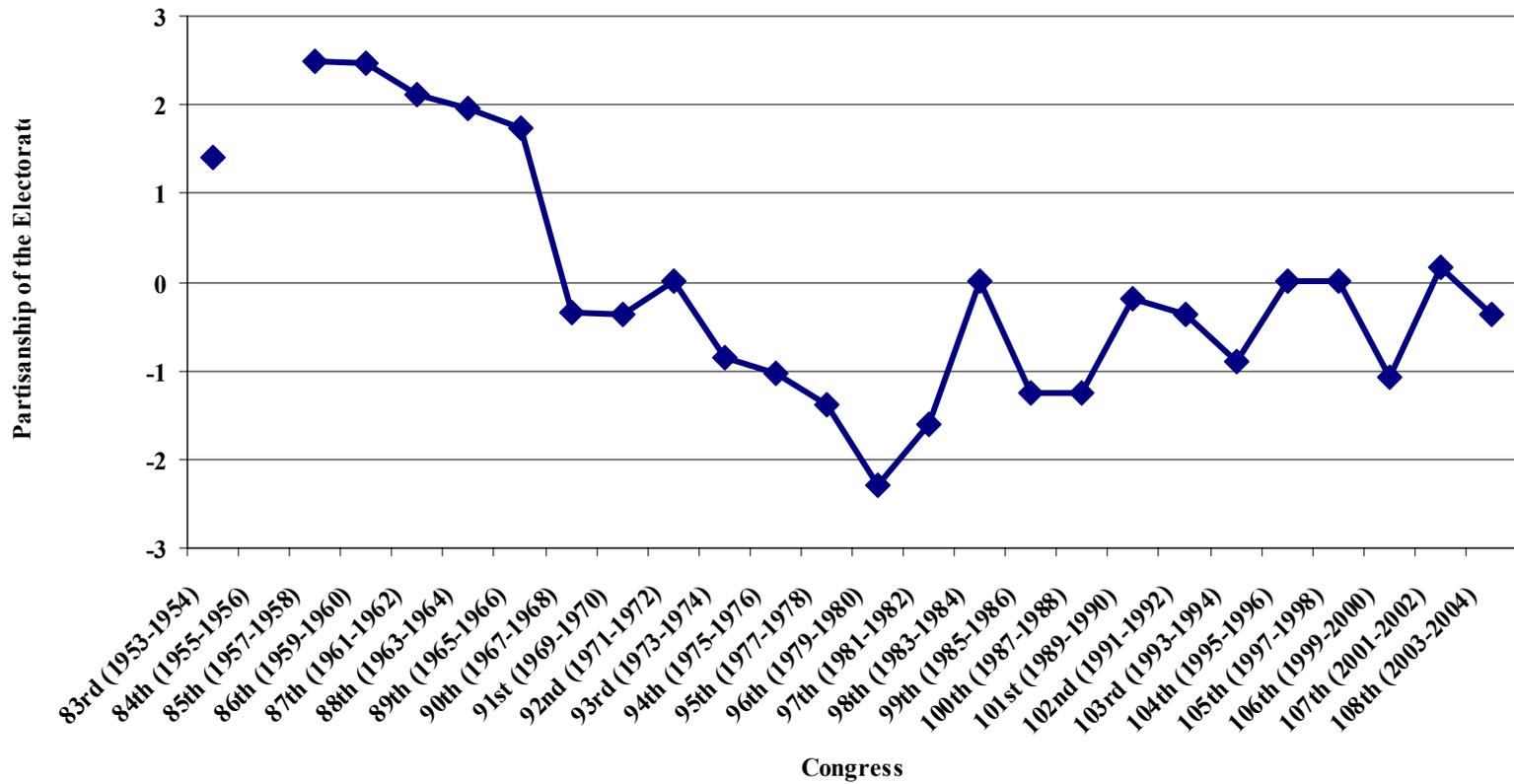
Variable	Test	Test Statistic	Significant at .05 (MacKinnon p- values)	Conclusion
<b>Party Voting and % Restricted Rules</b>	A-D-F test with no-constant lags (2)	-3.018	Yes	Co-Integrated
<b>Party Voting and % Split Districts</b>	A-D-F test with no-constant lags (2)	-1.892	No	Not Co-Integrated

	Coef.	t	P>t	Marginal Effect 1 sd
<b>Δ % Split Districts</b>	.023	0.79	0.442	
<b>Electoral Partisanship</b>	1.696	2.34	0.030	2.2
<b>Δ % Restricted Rules</b>	.432	1.93	0.069	2.5
<b>Long Term Component (<math>\hat{\epsilon}_{t-1}</math>)</b>	-.499	-3.00	0.007	
<b>Constant</b>	.028	0.02	0.982	
<b>Dep Variable = Δ Congressional Party Voting</b>				
R-squared = 0.44				
N = 24				
Long Term Component ( $\hat{\epsilon}_{t-1}$ ) equals the lagged residuals from the regression of party voting (in levels) on percentage of restricted rules (in levels) – this is the error correction term. Interpreted as the percentage of a shock at time t that will be corrected at time t+1 (i.e. how long will it take for the variables to return to equilibrium) – evidence of a long term relationship between the variables.				

**Figure 1**  
**Party Voting in the US House, 1953-2004**



**Figure 2**  
**Partisanship of the Electorate, 1953-2004**



**Figure 3**  
**Number of Split House Districts, 1953-2004**

