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SUPREME COURT CONSENSUS AND DISSENT: ESTIMATING THE ROLE OF THE SELECTION SCREEN[*]

by

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Abstract

From 1940 to the present, the on-the-record consensus among Supreme Court justices fell precipitously relative to historical benchmarks. This paper first shows that Court consensus is closely associated with measures of consistency and stability of Court rulings. Then, an empirical model of Supreme Court consensus and dissension is estimated over 1800-1994 in which characteristics of the presidential-senatorial screen are key variables. Using OLS and controlling for several other influences, the results show that variations in consensus are linked closely to two components of the selection screen – the party of the confirming Senate and split party nominations and confirmations. Other than the selection screen, the size of the federal judiciary and consensus norms in the recent past are important influences. These results are also confirmed using ARCH, GARCH, and regime-shifting econometric methods.

I. Introduction

The on-the-record consensus among Supreme Court justices dramatically declined during the mid-twentieth century and thereafter. Before 1940 justices wrote dissenting opinions in only about 10 percent of the cases, while after 1940 the typical percentage approached 70 percent. Likewise, justices voting with the majority began to express their differing views about the bases for their votes by writing concurring opinions in a much greater percentage of cases after this date. For most of the first century and one-half of the Court's existence, fewer than one in twenty cases were decided by a one-vote majority in a given year, over the past sixty years about one in every six cases and sometimes more than one out of every four cases hinged on the ballot of a single justice. This institutional cornerstone of constitutional political economy now exhibits outcomes more in line with legislative bodies than with earlier Courts.[1]

Why do U.S. Supreme Court justices disagree in their written opinions? Why have these disagreements increased so markedly over the past sixty years? Why do these variations matter? These are the questions addressed in this paper. In the past, they have attracted the attention of historians, legal scholars, and political scientists over the past two decades and generated wide ranging explanations emphasizing Court traditions, Court leadership, intra-Court bargaining, personal ideology, technological change, jurisdiction, and caseload. Interestingly, while several of these could be termed as rational-choice political explanations, little consideration has been given to interest group models and, in particular, the selection process.

This paper develops an empirical model of Supreme Court consensus and dissension over

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[1]Easterbrook (1982) considers the similarities of legislatures and courts and the reasons underlying these similarities.

a long time series where the groups initially selecting justices matter. The next section considers why consensus matters, provides a background to the received analyses of Supreme Court consensus and disagreement, and develops a simple model illustrating the influence of the selection screen. Section III develops an empirical model addressing several statistical problems and using characteristics of the confirming Senate as key variables. Section IV considers explanations of the dramatic reduction in consensus in view of the empirical results and offers concluding remarks.

II. Background on Consensus

Consensus and Stability

Do variations in consensus matter? Whether slavery, segregation, property rights, abortion, or other issues, the importance of particular rulings of the Supreme Court for specific socioeconomic outcomes is beyond question and has been widely discussed. Some authors have also considered the more subtle, broader influences of general trends in the Court on society.[2] In contrast, the effects of consensus or its demise has attracted little attention, even though these effects are likely important in their own right.

The importance of stability in basic institutions of political economy for economic development has long been emphasized and more recently confirmed using cross-country studies.[3] Yet, barring revolution or major constitutional reorganization, establishing the effects of fundamental institutions using a time series for a single country is more difficult. The small

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[2]For instance, see Rosenberg (1991).

[3]For an extensive discussion, see Barro (1997).

amount of variation in political institutions for a country such as the U.S. makes the relationships subtle and difficult to detect in the absence of a well-defined and highly accurate macroeconomic model. As a result, the analysis of the effects of Court dissension has centered more narrowly on the effects feeding back on the Court itself or on the federal judiciary as a whole. For example, Posner (1996) not only suggest that greater dissension within the Supreme Court reduces its ability to perform its tasks as efficiently, but more critically, reduces the consistency and long-run stability of decisions.[4] In this way, concurrences, dissents, and razor-thin majorities in key cases reduce certainty about fundamental rules-of-the-game for decision makers of all kinds in the economy.

This association between fluctuations in consensus and the stability of rulings can be illustrated with descriptive statistics. Table 1 presents the correlation between the percentage of cases with at least one dissenting opinion and four variables related to consistency of court decisions over time. These four consistency-related variables are i) the number of past Supreme Court decisions reversed in part or in whole in a given year, ii) the number of local or state laws declared unconstitutional in part or in whole in a given year, iii) the number of congressional acts declared unconstitutional in part or in whole in a given year, and iv) the "durability" of past Supreme Court decisions as measured by the length of time between the current year and the originating year of the most recent Court decision reversed. As the results show, a higher percentage of dissents is strongly and positively associated with reversals of past Supreme Court rulings as well as with overturning of state and local laws and congressional acts. Dissents are negatively related to the durability of past Supreme Court rulings.

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[4]Also see Easterbrook (1982).

These statistics do not go very far in establishing the extent to which consensus matters for the economy, but they do provide evidence that consensus is not merely a matter of judicial efficiency in communication. As some writers have suggested, consensus matters for the stability and consistency of decisions, at the very least providing the potential for broader effects throughout the economy.

Explanations of Variation in Consensus

The bulk of analysis of judicial behavior in general and Supreme Court behavior in particular has focused on aggregate policy positions of various Courts and changes in those positions over time rather than on consensus and disagreement, *per se*.[5] Most commonly, these models and explanations emphasized characteristics of justices or intra-court influences as the primary determinants of observed outcomes. In this vein, "attitudinal" models have highlighted personal ideology of the justices along with its roots in the background and experiences of justices.[6] In more recent years, considerable attention has also been given to intra-court bargaining and influence games that arise among justices in the search for majority coalitions.[7]

Likewise, the explanations that explicitly consider court consensus or disagreement have also leaned heavily upon factors internal to the courts, especially court traditions and norms. For

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[5]Rhode and Spaeth (1975), Posner (1996), Baum (1997), Clayton and Gillman (1998), and Epstein and Knight (1998) all provide extensive discussions of judicial decision making but with differences in emphasis.

[6]See for example Segal and Cover (1989), Baum (1992), Segal and Spaeth (1993), and Epstein *et al.* (1998).

[7]Baird *et al.* (1995) provide extensive examination of game theoretic situations in judicial environments. Ferejohn and Weingast (1992a and 1992b), Maltzman *et al.* (1996), and Wahlbeck *et al.* (1998) generate empirical analysis of these kinds of bargaining incentives.

instance, Walker *et al.* (1988) discuss the importance of "consensual norms" as maintained and fostered by the chief justices. Calderia and Zorn (1998) provide empirical support for this idea over a long time frame. They develop an error correction model of dissenting and concurring opinions stretching from 1800 to 1991 and find evidence that the breakdown in consensus during the 1940s and beyond could be attributed largely to leadership of the court.[8]

Even though the framers of the U.S. Constitution openly discussed their intention to use the appointment of justices for a "term of good behavior" to insulate justices from external political incentives, researchers in law and economics and positive political economy have developed interest group and legislative oriented models of judicial behavior in which influences external to the Court influence decisions.[9] Like the models highlighting intra-Court factors, however, most of these contributions have been interested in analyzing majority rulings and changes in these rulings over time. Some of the chief external influences singled out in this literature include the power of Congress to make adjustments to the judicial system, relationships between the Congress and president, and electoral outcomes as well as changes in caseloads.

Some of the specific results of these externally-oriented models can be quickly summarized. For example, Toma (1991) finds evidence that Congress signals justices and influences outcomes through the budgeting process. Using data from both the Supreme Court and lower federal courts, De Figueiredo and Tiller (1996) find that political alignment between

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[8]Further evidence of the importance of Court traditions can be found in Segal and Spaeth (1996), Clayton and Gillman (1998), and Epstein and Knight (1988).

[9]The debates among the constitutional framers concerning the Court are surprisingly brief. The main issue seemed to be over the method of judicial selection that would best insulate judges from external influences. These debates are related in many sources such as Madison's notes (Scott, 1893).

Congress and the president along with caseload pressure have strongly influenced the expansion of the federal judiciary. McCubbins *et al.* (1995) find evidence that changes in the size of the federal judiciary have had an effect upon legal theories. Gely and Spiller (1992) find that while Roosevelt's court packing threat had little influence on voting behavior of justices, their decisions were closely linked to electoral outcomes Spiller and Spitzer (1992) explain legal doctrines in terms of the current political environment.

A small number of these kinds of externally-oriented explanations have arisen for variations in Court consensus. Probably the explanation most widely mentioned is the increased caseload and accompanying decline in the percent of cases reviewed by the Court.[10] The reasoning is that with more cases from which to pick, the selected cases grow more difficult and contentious. Little evidence supports the idea so far. The same can be said for legal changes that have altered court inputs, in particular jurisdiction over cases such as the Judges Bill of 1925.[11] In an appendix to their landmark contribution, Landes and Posner (1975) provide empirical support for the number of bills passed by Congress influencing the likelihood of the Court overruling a past decision.

Surprisingly, few if any contributions have stressed the *ex ante* screening of Supreme Court justices as means by which interest groups influence subsequent voting behavior and disagreements between justices. Landes and Posner do include tenure of justices in their model of Court reversals, but it only indirectly proxies similarities and differences among justices based on characteristics of the screen. As is well known, the selection screen for the U.S. Supreme

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[10] Posner (1996, p. 357) identifies this as the "standard explanation."

[11] Haynie (1992) reviews the evidence.

Court consists of two primary components – the presidential nomination and the confirmation hearings and vote by the Senate. The influence of the nomination power is seen in the fact that nearly all justices are appointed from the same party as the President. The power of the confirming Senate resides in its effective veto power over nominees and the threat of this power. The relative importance of these two parts of the screen in determining the composition of the Court has varied and been subject to much debate.

Whatever the relative importance of the Senate and president and the ways by which they influence the ultimate appointment of justices, the selection and screening process imposes a direct mechanism for political interests to work their way into subsequent behavior and consensus of the Court. A simple way of describing the relationships can be illustrated by defining $J(t)^{ik}$ as the preferences of the ith justice in year t nominated and confirmed by the a particular presidential-senatorial screen (k), and defining S as real valued index of similarity in the justices views. Then, the production of S can be shown as

(1) $S(t) = \alpha J(t)^{ik}$,

where α is the parameter relating composition of the Court to the similarity index, $\alpha < 0$, $i \geq 1$, and $1 \leq k \leq i$. This parameterization permits both a larger number of presidential-senatorial screening combinations (k) or a larger number of justices (i) to decrease the similarity index (S) at a given point in time. When k = 1, then all of the justices are nominated and confirmed through the same screen, and the similarity index would be at its maximum for a given number of justices. When k = i, then S would be at its maximum for a given number of justices. Over

time, as k or i fluctuate, similarity among justices would also fluctuate.

If it is assumed that consensus in year t, C(t), can be measured by a real valued index, and that it is directly related to S by a parameter δ ($\delta > 0$), then

(2) $C(t) = \delta\alpha J(t)^{ik}$.

Now, over years when k is small and constant, then a high degree of consensus would be expected and this level would remain the same as long as the number of justices and screens represented on the Court does not change. In contrast, substantial changes in k or i would be expected to lead to more widely diverse views and thereby lead to a decline in consensus.

Of course, merely the number of presidential-senatorial screens represented does not capture all of the details of the screening mechanism that may influence similarity and consensus among the justices. In the empirical model below, multi-dimensional characteristics of this process are incorporated. Still, the simple model above outlines the logic behind the empirical model.

III. Empirical Models of Consensus

In this section empirical models are developed to explain fluctuations in the percentage of cases with at least one written dissent, at least one concurring opinion, and those decided by a one-vote majority over 1800-1994. The focus in the model, therefore, is on factors that drive year to year variation in disagreement. The general model employed is

(3) $C(t) = f(\mathbf{K(t); Z(t)})$

where C(t) is a measure of consensus in year t, **K(t)** represents a vector of characteristics related to the presidential-senatorial screen in year t, and **Z(t)** represents a vector of other external and internal influences on Court consensus discussed in more detail below.

Dependent Variables

Consensus in a given year, C(t), or the lack of it among justices is reflected in various ways including private memoranda circulated among justices. Discord may not be fully reflected in public records so that seeming consensus masks underlying disagreement.[12] While true, the opportunity for behind-the-scenes disagreements covered by public agreement has been available to more recent justices just as for those from earlier periods. The question still remains as to why on-the-record consensus and disagreement would fluctuate, especially in dramatic and persistent ways. Moreover, it is this on the record disagreement that provides much of the basis for future challenges to decisions.

Even on-the-record consensus within the Court is reflected in different ways. For this reason, three separate dependent variables are used in the following regressions as measures of consensus. First, the percentage of cases with at least one dissenting opinion is used. Dissents register disagreements from members of the minority coalition. Second, the percentage of cases with at least one concurring opinion is also used. Concurring opinions represent a different kind

[12]Epstein (2001) tries to investigate this kind of behind-the-scenes disagreement that may not show in public documents.

of breakdown of consensus, reflecting disagreements among members of the majority coalition. Last, the percentage of cases decided by a one-vote majority is used.[13] This measure registers the lack of consensus in terms of actual voting on the key questions before the Court in a given case.

Figure 1 depicts the movements of each of these variables over 1800-95. For dissents prior to 1939, the percentages fluctuated around 10 percent. After 1939, the percentages steadily increased and then began to fluctuate around 60 percent by 1950. The essential features of concurring opinions are very similar to those for dissenting and concurring opinions with most every year below 10 percent before 1939 and well over 30 percent after 1950. For cases decided by a one-vote majority, the percentages ranged from zero to 10 percent over the earlier time frame and then bumped up to the 10 to 20 percent range for the last fifty years.

As with any analysis of time series data, one important question relates to the stationarity of the dependent series. For instance, Calderia and Zorn (1998) develop their error correction model based on evidence of non-stationarity of dissenting and concurring opinions and the subsequent tests for cointegration between these series. Their nonstationarity evidence is based on tests over the entire sample.

The results of Augmented Dickey-Fuller and Phillips-Perron non-stationarity tests shown in Table 2 indicate that the series are stationarity from 1801 to 1939 and from 1952 to 1994. Only the period of transition over from about 1940 to 1952 gives rise to rejection of nonstationarity. As a result, using cointegration and error correction techniques based on a conclusion of nonstationarity of the entire time frame is questionable. Due to the length of the

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[13]Each variable is taken from Epstein *et al.* (1996).

stationary periods and the brevity of the transitional, non-stationary period, the model below treats the dependent variables as stationary and uses the series in their levels.

Explanatory Variables

Four variables are included to measure characteristics of the selection screen that produced the justices sitting in a given year. First, a yearly Herfindahl Index based on the confirming Senate of each justice is constructed (*Senate Herfindahl*). This measure is computed by linking each justice sitting in year t to the senate that confirmed the justice, then attributing relative "market shares" for each confirming senate represented in year t, and finally computing a Herfindahl Index based on these shares. For example, in 1903, seven of the justices had been confirmed by different Senates and two had been confirmed by the same Senate, so the one common Senate for the two justices received a 22 percent market share of the Court and the other seven an 11 percent share each. The Herfindahl, therefore, is 0.13. Greater concentration of shares and a higher Herfindahl index for a given Court means that more members of that Court were confirmed by the same Senate.

Second, the percentage of justices in year t confirmed by a Democratic majority in the Senate is computed (*Senate Democratic Share*). Although politicians of different parties frequently behave in similar ways due to other influences, political parties are a key institutional feature of government, providing branding for politicians as well as incentives and enforcement mechanisms among members. In political research, party affiliation is one of the most consistent explanatory factors of a variety of outcomes. This variable is included to account for differences in Court consensus that may arise when Democratic confirmees have held larger shares of the

Court.

Because of the long time frame under consideration, the meaning of the "Democratic Party" label has evolved. While many themes and periods might be identified, the time frame considered here is broken into two periods – pre- and post-Reconstruction with second variable measuring Democratic shares computed as the interaction of Senate Democratic share and a dummy variable equal to 1 before 1878 and 0 after (*Democratic Share to 1877*). Including this interaction term allows for a difference in the magnitude (slope) of the Senate Democratic Share coefficient of before and after this date.

The fourth measure of the confirming senatorial characteristics is the percent of the justices in year t that were confirmed by a Senate controlled by one party but appointed by a President of a different party (*Split Party Appointment*). Even though the Senate holds veto power over justices appointed by the President, the fact that almost all justices come from the party of the President is suggestive of presidential influence on the outcomes. Justices who have been appointed by conflicting parties are less likely to hold extreme positions. While these justices may be more inclined to compromise, they may also increase the likelihood for smaller majorities and for more disagreement about the bases for opinions.

Three variables identified from the literature on judicial behavior are included as controls, **Z(t)**. First, number of federal judges per million in population (*Fed Judges Per Million*) incorporates the possibility for effects from an expanded federal judiciary. This takes into account widened statutory jurisdiction and review.[14] Second, the number of Supreme Court cases per million people in population (*SC Cases Per Million*) takes account of the practical

[14]See McCubbins *et al.* (1995).

constraint that more recent justices have faced in dealing with a larger number of filings. With a larger amount of filings and a smaller percentage of filed cases actually reviewed by the court, the cases that are reviewed may be more controversial. Finally, for each of the models, one-year lagged values of the dependent variable are also included. It is important to note that while their inclusion performs the common task of correcting for residual correlation problems in the estimated equations, the lagged variables have a behavioral interpretation related to constraints faced by justices in the case of dissents and concurrences. Specifically, established precedent and custom is important to justice behavior. The accepted level of consensus and disagreement in the recent past provides an important precedent for current justices. Lagged values incorporate a continuous measure of the effect of these influences rather than relying on a set of dummies.[15] Since one-vote majorities are a collective outcome of judicial choices rather than one directly chosen by any individual justice, including the lag value of one-vote majorities is just a correction for autocorrelation without the additional behavioral interpretation.

In summary, the models used to generate the results below take the following form:

(4) $C_t = a_0 + a_1(\text{Confirming Senate Herfindahl})_t + a_2(\text{Confirming Senate Democratic Party Share})_t + a_3(\text{Democratic Share to 1877})_t + a_4(\text{Split Party Appointment})_t + a_5(\text{Fed Judges Per Million})_t + a_6(\text{SC Cases Per Million})_t + a_7(C)_{t-1}$.

[15]One criticism against the use of dummies to model "consensual norms" based, for instance, on chief justice leadership is that so few chief justices have served that the dummy variables capture broad eras of the Court and the external environment and not just Court leadership.

Descriptive statistics for all variables are shown in the Appendix.[16]

OLS & GARCH Results

OLS estimates of the empirical model developed above appear in Table 3. The equations for percent of cases with dissents as well as concurrences explain well over 90 percent of the variation in these series. The equation for the percent of one-vote majority opinions explains about 72 percent of the variation.

As for the individual measures based on the screen characteristics, *Senate Herfindahl* measure is not significantly different from zero in any of the three equations. However, the other three screen-based measures all display a relationship with the consensus measures. *Senate Democratic Share* has a positive effect on dissents, concurrences, and one-vote majority outcomes below the 1 percent level of significance. For the period after 1878, an increase of about three additional justices (roughly a one standard deviation increase) appointed by a Democratic Senate is associated with about a 10 percent jump in dissents, about a 5 percent jump in concurrences, and about a 3 percent increase in one-vote majority outcomes. These relationships are all much smaller but still positive before 1878 as estimated by the slope-adjusting coefficients for *Democratic Share to 1877*. *Split Party Appointment* displays a positive and significant relationship with the consensus measures at the 5 percent level for dissents and below the 1 percent level for concurrences and one-vote majorities. The magnitude of the effect

[16]The Herfindahl measure, Democratic Share, and Split Party are computed from the combining the list of justices from Epstein (1996) with Senate and presidential data in Stanley and Niemi (1992). The number of federal judges is from Epstein (1996). The number of Supreme Court cases is from Posner (1996).

is largest for concurrences where an increase of about three more justices from split parties increases concurrences by 3 to 4 percent.[17]

Among the control variables, federal judges per million in population has a positive and significant relationship with each of the consensus measures. For an increase of one judge per million in population (about 2 standard deviations), dissents and one-vote majorities increase by about 2 percent and concurrences by about 3 percent. Each of the lagged dependent variables is positive and significant. For dissents and concurrences, other things equal, the value in year t equals about half the value of the prior year. For one-vote majority opinions, the coefficient for the lagged values is still positive and significant at the 5 percent level, but the size of the coefficient is only 0.15. The larger magnitudes for lagged values for the dissents and concurrences is in keeping with these coefficients capturing behavior of justices in following past norms in addition to controlling for autocorrelation in general, whereas the one-vote majority lagged coefficient accounts only for residual correlation without any additional behavioral interpretation.

Using the Box-Pierce Q-statistic at twelve lags, residual correlation in the OLS regressions is not a problem. However, using the ARCH F-statistic, the assumption of a constant variance for the residuals can be rejected below the 1 percent level of significance. To correct for this problem, GARCH estimates of the same equations are provided in Table 4. The overall explanatory power, coefficient values, and significance levels using GARCH models are

[17]It should be noted that other characteristics related to the presidential-senatorial screen such as a presidential Herfindahl Index or presidential party did not have significant effects.

very similar to the OLS estimates.[18] Notably, the coefficients on *Split Party Appointment* in the dissent and concurrence equations are substantially larger than in the OLS regressions. Also, *Senate Herfindahl*, while still not significantly different from zero in the concurrences and one-vote majority regressions, is positive and significant at the 5 percent level in the dissent equation. The positive coefficient implies that greater concentration for a given Senate increased the percentage of dissenting opinions. While this result is unexpected, the size of the impact is small – only about a 1 percent increase in dissents for a one-standard deviation in the index.

Regime Shifting Models

Even by casual examination of Figure 1, each of the consensus measures exhibits at least one major structural shift or regime change around 1940. Such structural shifts have been the subject of recent interest in time series analysis, and new methods to take to account for such shifts have been developed.[19] However, the problem with employing some of these methods here is that their purpose is to eliminate the variation of the dependent series during the structural shift through the use of intercept shifts or trend shifts. While such methods are suitable for some forecasting applications or when the main interest in an explanatory model lies in variation outside of period of the structural shift, the structural shift in Supreme Court consensus is a critical part of the variation to be explained in this analysis.

In order to keep the structural shift in consensus as a part of the variation to be explained

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[18]The ARCH(1) and GARCH(1) coefficients with z-statistics in parentheses are 0.21 (2.74) and 0.78 (10.93) in the dissents equation, 0.38 (3.57) and 0.72 (11.7) in the concurrences equations, and 0.25 (2.48) and 0.74 (7.85) in the percent by one-vote equation.

[19]See Hendry and Clements (1996), Bai and Jushan (1998), and Engle (1999).

but employing a method that permits parameter variation, a basic state-space model is estimated where the coefficients are generated by recursive estimation.[20] This permits an updating of the coefficient values over the time frame. The final coefficient values of these recursive estimates appear in Table 5. The procedures do not directly compute R^2 values, but results from regressing the one-step forecast values against the actual dependent series are reported in the table. For dissents and concurrences, the explanatory power is slightly over 90 percent. For one-vote majorities, the explanatory power is 63 percent. Augmented Dickey Fuller test statistics are also provided based on the residuals. In each case, the null of non-stationarity can be rejected below the 1 percent level. Like the GARCH estimates, the final recursive coefficient values closely resemble the OLS estimates. Democratic share after 1877, split party appointment, and federal judges per million are all positive and significant.

IV. Why Did Consensus Decline?

In this concluding section, the question as to why the on-the-record Supreme Court consensus fell so sharply during the 1940s and has remained much lower in subsequent years is addressed. From the prior estimates, the key variables are the share of the Court appointed by Democratic Senates, Split Party, and the values of the dependent series in prior years.

The first question is why did the consensus experience the secular decline from 1940 to the early 1950s? This period of transition to a higher mean level of disagreement can be attributed in large part to two primary influences. The Democratic Senate share jumped from 22

[20]See Hamilton (1994, Chapter 13) for more details on this approach to modeling structural shifts.

percent to 67 percent by 1940 and all the way to 100 percent by 1944. Using the OLS estimates above, this change can account for a 24 percent increase in dissents, an 11 percent increase in concurrences, and over a 7 percent increase in one-vote majority opinions. These increases were then reinforced by the tendency of the Court to follow behavioral norms from the recent past. The federal judiciary expanded in size over the period, growing by over 20 percent between just 1937 and 1941, but its influence is small relative to the other two factors.

The second question is why has consensus remained so much lower than before 1940? Again from the preceding estimates, the share of justices confirmed by Democratic Senates is a factor. This percentage has fluctuated between 78 and 100 percent since the early 1950s. Also, the norms established by behavior in the recent past reinforced this effect. However, during this period, the percentage of justices appointed and confirmed by a president and Senate of different parties has played an important role. This percentage, which was zero for many years leading up to 1953, ranged 56 to 78 percent of the over most of the years since 1960. Based on the estimates above, this could increase the dependent variables anywhere from 5 to 8 percent. Also, over this period, the expansion of the federal judiciary plays a larger role. From the enactment of the Judges Act of 1925 to the 1990s, the number of federal judges per million in population doubled from 1.4 per million to 2.9 per million. This increases the dependent series from 4 to 6 percent.

The results generated here indicate that characteristics of the confirming Senate are important in explaining the dramatic shifts in Supreme Court consensus even when other common explanations such as norms, judicial jurisdiction, and caseload are taken into account.

Appendix

Descriptive Statistics

Variable	Mean	Standard Deviation
Dissent Pct	0.23	0.24
Concur Pct	0.11	0.15
Pct By One-Vote	0.05	0.07
Senate Herfindahl	0.21	0.07
Senate Democratic Share	45.79	38.1
Split Party Appointment	16.1	24.5
Fed Judges Per Million	1.8	0.6
SC Cases Per Million	2.3	1.5

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Table 1
Correlation of Dissents and Measures of Court Consistency-Stability, 1800-1994

	Percent of Cases with 1 or More Dissents
Number of Supreme Court Cases Reversed	0.62
Number of State and Local Laws Ruled Unconstitutional	0.55
Number of Congressional Acts Ruled Unconstitutional	0.29
Durability of Supreme Court Rulings	-0.53

Table 2
Unit Root Tests for Measures of Supreme Court Consensus

	Dissent Pct	Concur Pct	Pct By One-Vote
1800-1939			
ADF Test Statistic	-3.46	-3.79	-5.30
5 percent Critical Value	-2.88	-2.88	-2.88
PP Test Statistic	-7.80	-9.82	-9.80
5 percent Critical Value	-2.88	-2.88	-2.88
1952-1994			
ADF Test Statistic	-6.11	-2.91	-3.48
5 percent Critical Value	-2.93	-3.51	-2.93
PP Test Statistic	-5.18	-3.70	-4.46
5 percent Critical Value	-2.93	-3.51	-2.93
1800-1994			
ADF Test Statistic	-0.66	0.53	-1.76
5 percent Critical Value	-2.87	-2.87	-2.87
PP Test Statistic	-1.23	-0.77	-4.46
5 percent Critical Value	-2.87	-2.87	-2.87

Notes: ADF tests are Augmented Dickey-Fuller Tests. PP Tests are Phillips-Perron Tests. Test statistics and critical value for Concur Pct over 1952-1994 include a trend term. The 1800-1994 and the 1800-1939 ADF tests include 4 difference terms. The results for concurrences over 1952-1994 include a trend term. For 1952-1994, one difference term is included.

Table 3
OLS Regressions for Supreme Court Consensus Measures, 1800-1994

	Dissent Pct	Concur Pct	Pct By One-Vote
Constant	-0.09	-0.05	-0.04
	(2.22)	(2.89)	(1.97)
Senate	0.07	-0.05	0.06
Herfindahl	(0.88)	(0.88)	(1.18)
Senate	3.1e-3	1.4e-3	9.5e-4
Democratic Share	(6.69)	(6.17)	(5.25)
Democratic Share	-2.3e-3	-1.0e-3	-8.9e-4
(to 1877)	(6.47)	(5.61)	(5.56)
Split Party	5.0e-4	1.1e-3	6.9e-4
Appointment	(1.89)	(4.68)	(3.33)
Fed Judges	0.02	0.03	0.02
Per Capita	(2.35)	(4.11)	(2.79)
SC Cases	0.006	3.0e-3	1.2e-4
Per Capita	(1.25)	(1.09)	(0.04)
Lagged Dependent	0.49	0.48	0.15
Variable	(8.26)	(7.94)	(2.12)
R^2	0.94	0.93	0.72
Box-Pierce Q(12)	13.3	16.0	16.5
	(0.34)	(0.19)	(0.16)
ARCH F-Statistic	10.2	32.3	43.5
	(<0.01)	(<0.01)	(<0.01)

Notes: Absolute values of t-statistics are in parentheses under coefficients. Numbers in parentheses for Box-Pierce and ARCH statistics are p-values indicating the probability of observing the test statistic coefficient under the null hypothesis that the true value equals zero.

Table 4
GARCH Regressions for Supreme Court Consensus Measures, 1800-1994

	Dissent Pct	Concur Pct	Pct By One-Vote
Constant	-0.10	-0.04	-0.03
	(3.43)	(3.79)	(2.67)
Senate	0.14	0.04	0.0.05
Herfindahl	(2.06)	(1.42)	(1.02)
Senate	2.4e-3	7.5e-4	8.0e-4
Democratic Share	(4.81)	(4.47)	(4.81)
Democratic Share	-1.73e-3	-5.1e-4	-7.77e-4
(to 1877)	(4.30)	(3.53)	(5.58)
Split Party	1.1e-3	4.9e-4	5.8e-4
Appointment	(3.39)	(3.05)	(3.71)
Fed Judges	0.03	0.01	0.02
Per Capita	(5.60)	(3.38)	(5.41)
SC Cases	8.0e-3	3.0e-3	8.6e-4
Per Capita	(1.51)	(1.51)	(0.46)
Lagged Dependent	0.51	0.63	0.22
Variable	(6.56)	(11.39)	(2.98)
R^2	0.93	0.91	0.72
Box Pierce Q(12)	9.6	16.0	18.0
	(0.67)	(0.19)	(0.11)
ARCH F-Statistic	0.51	3.07	0.09
	(0.47)	(0.08)	(0.75)

Notes: All equations are estimated by GARCH (1,1) model. ARCH and GARCH coefficients for the variance equation are reported in note in the text. z-statistic estimates are in parentheses under coefficients. Numbers in parentheses are p-values indicating the probability of observing the estimated coefficient under the null hypothesis that the true coefficient equals zero.

Table 5
Recursive Estimates for Supreme Court Consensus Measures, 1800-1994

	Dissent Pct	Concur Pct	Pct By One-Vote
Constant	-0.06	-0.05	-0.03
	(2.24)	(2.01)	(1.41)
Senate Herfindahl	0.07	-0.05	0.06
	(0.87)	(0.62)	(0.85)
Senate	3.1e-3	1.4e-3	8.9e-4
Democratic Share	(6.67)	(4.30)	(4.00)
Democratic Share	2.3e-3	-1.1e-3	6.9e-4
(to 1877)	(6.48)	(3.91)	(2.39)
Split Party	5.9e-4	1.2e-3	6.9e-4
Appointment	(1.89)	(3.26)	(2.39)
Fed Judges	0.02	0.03	0.02
Per Capita	(2.35)	(2.87)	(2.00)
SC Cases	6.0e-3	3.5e-3	1.2e-4
Per Capita	(1.25)	(0.76)	(0.03)
Lagged Dependent	0.49	0.48	0.15
Variable	(8.25)	(5.53)	(1.52)
1-Step Ahead	0.92	0.91	0.63
Forecast Fit			
ADF Test of Residuals	-5.57	-5.67	-7.20

Notes: All equations are estimated using the State Space procedure of Eviews 4.0 with ecursive coefficients, maximum likelihood estimation with the Marquandt algorithm, and a 0.01 convergence criterion. z-statistic estimates are in parentheses under coefficients. ADF test statistic is the Augmented Dickey Fuller Test with a one percent critical value of -3.46. Forecast fit is the R^2 for regression of actual dependent variable on 1-step ahead forecasts from model.