Judicial Preferences and Judicial Independence in New Democracies: The Case of the Brazilian Supreme Court (Early Draft)*

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Abstract

In this article we apply Bayesian ideal point estimation methods to a novel data set we collected from the Brazilian Supreme Court (Supremo Tribunal Federal, or STF) decisions. Our objectives are twofold: a) to what extent do ideal point models account for the votes cast in the STF? b) How are the preferences of outside actors, in particular the Executive, related to those of the Supreme Court Justices?

The main findings are as follows: a) single dimension explains about 86% of the decisions in the court; b) the Executive and the main opposition party in the period we study are estimated to be in opposite ends of this ideological continuum; c) We also connect the ideal point estimation methods to the concerns of the literature on "judicial independence".

Introduction

A number of recent articles in comparative and American politics explore the issue of Judicial preferences and the relationship between the Judiciary and external actors. However, while the literature concerning the Supreme Court of the United States has moved to more complex and descriptive ideal point estimation methods (Bafumi et al., 2005; Martin and Quinn, 2002), the comparative politics literature is still populated by studies using qualitative methods (Larkins, 1998) and more recently by quantitative methods based on *logit* and *probit* models (Helmke, 2004; Iaryczower, Spiller and Tommasi, 2002).

The divergent approaches emerge in part from the basic assumptions underlying each literature. The maintained assumption in the American Politics literature is that Justices are independent. That is, they act according to their preferences autonomously, without taking into account the preferences of the Executive, Legislature, or any other actor(Segal (1997); Segal and Spaeth (1993)). Statistical models that attempt to estimate Justices ideal points as independent decision makers with preferences that are either fixed (Bafumi et al., 2005) or changing (Martin and Quinn, 2002) across time is perhaps rightly seen as quite appropriate for this circumstances.

In comparative politics, on the other hand, the foremost objective is exactly the measurement and explanation of variations in judicial independence. Estimating the ideal points by the same methods of American Politics is not only somewhat challenging, but also appears to assume complete independence between the court and external actors. More importantly, the ideal points themselves do not seem to be as interesting for comparativists. They assume that a prevalent conservative/liberal ideology like the one existent in the United States does not exist elsewhere, preferring to discuss decisions in terms of *pro* or *anti* government (Executive) behavior.

In this paper we show that some of the parameters of interest for those interested in "judicial independence" can indeed be recovered from the usual ideal point estimation procedure, and discuss the main advantages of doing so. We apply our ideas to a novel data set we constructed from the abstract review decisions of the Brazilian

Supreme Court justices. Finally, we use the fact that political parties can bring to the court such decisions to estimate the ideal point of the main left party in Brazil (PT or Workers Party) as well as the position of the President (since he signs the laws and, therefore, prefer them to the *status quo*), thus being able to verify the assumption that the basic underlying dimension is between government and opposition.

We find that a single underlying dimension can explain about 88% of the decisions. When we estimate the positions of the President and of the main opposition party in the period, we discover that in fact the two are located at opposite ends of the policy space, consistent with the claim of "pro" and "anti" government behavior. Following authors that examined the Argentine Supreme Court case (Helmke (2002); Iaryczower, Spiller and Tommasi (2002)) , we explore how the support of the Supreme Court to the Executive varies across time and try to explain the patterns by focusing on the attempts of the Executive to increase its latitude of action and the Courts response to these challenges. The basic gist of our paper is that the Brazilian Supreme Court is quite independent, but has been increasingly supportive of the Executive's policies.

The first section discusses judicial independence in the context of a spatial model. We then introduce the institutional features of the Brazilian Supreme Court, our dataset, and some basic descriptive statistics of the court. We finally apply our ideas to the our new data set. The conclusion discusses how we plan to further integrate the two literatures.

A simplified spatial model of judicial decisions and judicial independence

The canonical model

We follow the setup and notation of Clinton, Jackman and Rivers (2003). There are n justices with preferences that can be represented as points in a one dimensional policy space. We label each justice i's ideal point as x_i. Similarly, each case j that comes up to the court can also be represented in the space as two points. : ζ_j (the law is constitutional, or the lower court decision is upheld) and ψ_j (the law is not

constitutional, or the lower court decision is reversed).

Formally, the justice will vote for the constitutionality of the law if $U_i(\zeta_j) - U_i(\psi_j) > 0$, where ζ_j denotes the "for" position and ψ_j the "against" position for case j in a one dimensional policy space. With quadratic utilities, and adding a stochastic term to each outcome, the choice specific utilities are $U_i(\zeta_j) = -(x_i - \zeta_j)^2 + \eta_{ij}$, $U_i(\psi_j) = -(x_i - \psi_j)^2 + \nu_{ij}$. Therefore, justice i votes for the case if $U_i(\zeta_j) - U_i(\psi_j) \equiv \psi_j^2 - \zeta_j^2 + 2x_i(\zeta_j - \psi_j) + \eta_{ij} - \nu_{ij} > 0$.

In each judicial decision j, let $y_{ij} = 0$ if justice i votes *against* the case and $y_{ij} = 1$ if justice i decides *for* the case. Assuming $E(\nu_{ij}) = 0$, $E(\eta_{ij}) = 0$ and $Var(\nu_{ij} - \eta_{ij}) = \sigma_j^2 \equiv 1$, with η_{ij} and ν_{ij} independent across justices and cases, we have:

$$\begin{aligned} P(y_{ij} = 1) &= P(U_i(\zeta_j) - U_i(\psi_j) > 0) && (1) \\ &= P(\nu_{ij} - \eta_{ij} < 2x_i(\zeta_j - \psi_j) + \psi_j^2 - \zeta_j^2) && (2) \\ &= \Phi(\beta_j x_i + \alpha_j) && (3) \end{aligned}$$

where $\beta_j = 2(\zeta_j - \psi_j)/\sigma_j$ (the direction of the "for" outcome) and $\alpha_j = (\psi_j^2 - \zeta_j^2)/\sigma_j$. The probability of voting "against" can be similarly derived:

$$\begin{aligned} P(y_{ij} = 0) &= P(U_i(\zeta_j) - U_i(\psi_j) < 0) = P(\nu_{ij} - \eta_{ij} > 2x_i(\zeta_j - \psi_j) + \psi_j^2 - \zeta_j^2 && (4) \\ &= 1 - \Phi(\beta_j x_i + \alpha_j) && (5) \end{aligned}$$

with β_j and α_j as defined above.

The assumption of Judicial independence

What if justices are *not* independent from external actors? A particularly simple way to model this is to assume that justices incur a common cost when they vote against the likings of the Executive. More formally, we assume justices receive an extra pay off δ_j for deciding a case in accordance to the government's wishes.

To simplify the discussion we do a relabeling of the notation above. We now take ζ_j to be the outcome favoring the government and ψ_j to be the one the outcome against the government. The choice specific utilities are now $U_i(\zeta_j) = -(x_i - \zeta_j)^2 + \delta_j + \eta_{ij}$ and $U_i(\psi_j) = -(x_i - \psi_j)^2 + \nu_{ij}$.

$$
\begin{aligned}
P(y_{ij} = 1) &= P(U_i(\zeta_j) - U_i(\psi_j) > 0) && (6)\\
&= P(\nu_{ij} - \eta_{ij} < 2x_i(\zeta_j - \psi_j) + \psi_j^2 - \zeta_j^2 + \delta_j) && (7)\\
&= \Phi(\beta_j x_i + \alpha_j) && (8)
\end{aligned}
$$

where as before $\beta_j = 2(\zeta_j - \psi_j)/\sigma_j$ and $\alpha_j = (\psi_j^2 - \zeta_j^2 + \delta_j)/\sigma_j$. Similarly, the probability of voting "against" is now $= 1 - \Phi(\beta_j x_i + \alpha_j)$.[1]

Identification Issues

The model so far is not yet identified. Rivers (2004) and Bafumi et al. (2005) discuss how the rotational and scaling invariance identification problems might be solved. Given the relative of cases in our dataset, we adopt the simple solution of fixing the positions of the most extreme justice to the "left" (who almost invariantly decides against the government) and to the most extreme justice to the right as -3 and 3 respectively.

However, the δ_j parameter we introduced causes an additional identification issue. As we have demonstrated in the previous section, we are not able to have separate estimates for the "difficulty" parameters α and δ_j. That is, whatever pressure the

[1] In other words, δ_j is a *valence* parameter.(Londregan (2000))

government exerts can not be distinguished from mere agreement among justices that the case should be decided a certain way.

In order to identify the model we have to make further assumptions. Imagine for the moment that the Court decides the exact same case twice. The first decision is made while the President was just elected and the latter one is made in his final months in office. Our hypothesis might be that the he exerts more pressure in the beginning of his term than at the end(Helmke, 2004). We could estimate the government's pressure by fixing δ_j equal zero in the first decision. In other words, although we certainly cannot estimate the pressure of the government in both cases, we are still able to estimate the how much more (or, in this case, less) pressure there is in the second case when compared to the first.

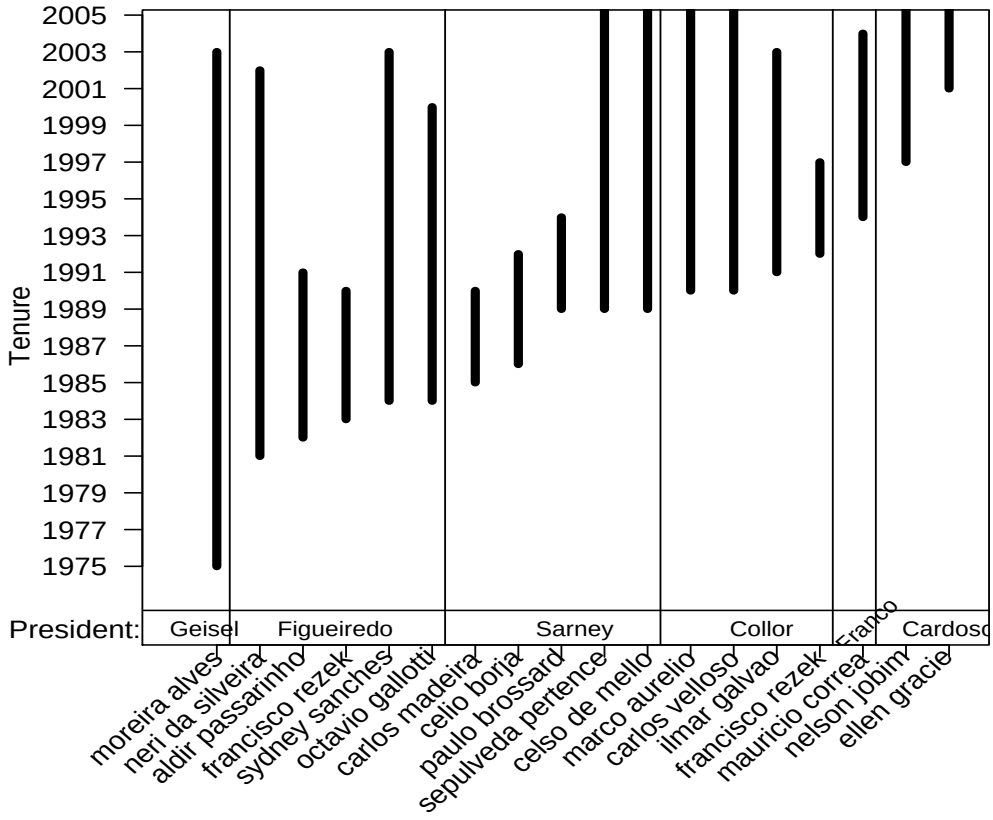
Of course, we don't get to run experiments with the Supreme Court so two cases are never exactly the same. An option is to estimate a structural model of the α parameters in a hierarchical model. That is, we estimate $\alpha_j \equiv X_j\gamma + \delta_j \cdot g_j + \epsilon_j$ where g_j is some variable measuring when we should observe more rather than less pressure. Alternatively, we can estimate α_j for each case j and then perform a second step, regressing α_j on X and g (Lewis and Linzer, 2005), as long as we know in each case what direction is the Executive supporting.

The Brazilian Supreme Court

We have first to outline some features of the Brazilian Supreme Court and our dataset. There are eleven Justices ("Ministros") in Brazilian Supreme Court (called "STF" - Federal Supreme Court), all of them appointed by the Brazilian Republic's President, pending confirmation by the Senate ("Senado Federal"). Justices have tenure, meaning that there is a constitutional guarantee that they cannot be removed from their office unless there is judicial condemnation or if they reach the compulsory retirement age (70).

Figure 1 shows the tenure of Justices in our sample. The only Justice that exited the court before the compulsory retirement age (70) was Francisco Rezek, twice. In

Figure 1: Tenure of Supreme Federal Court Justices in our sample



the first time he was appointed Minister of Foreign Relations by President Collor de Mello. He was later reappointed to the Court, exiting again in 1997 to become a judge at the International Court of Justice in the Hague. Also note that the compulsory retirement, together with appointments of Justices close to this age, lead to a few very short tenures as seen in the graph.

Decisions in the STF are made at three distinct levels. Cases can be decided by: one Justice only (monocratic decision); one of the two court sections, which are composed by five Justices each (the President of the court does not participate in each section;) and by the full court ("plenário"). The cases decided in the first two levels are either not very relevant or similar enough to important decisions already made.

The important decisions are made by the full court, where all Court's members, including the President, vote. The vote cast by the Court's President is not more rel-

evant or important then the others. Moreover, the Court's president does not have any special power upon Court's vote section. Hence, for the purposes of analysis, the president's vote is regarded as a just one more vote.

We restrict ourselves to the study of set of full court decisions named ADCs and ADIs. These are abstract constitutional review cases. ADIs are motions to request a law to be deemed unconstitutional, while ADCs are motions to request the constitutionality of such a law. Both can only only be proposed by subjects specified in the Constitution (President, Governors, political parties and interest groups, the leadership of Senate, the leadership of the Câmara dos Deputados, the Attorney General and Brazilian Federal Bar Council).

The Brazilian Supreme Court Database

The database covers the period between 1989 and 2003. The total number of decisions included (there can be more than a decision per case) is 408.[2] We coded not only the positions of each justice in each decision, but also if the President (i.e. the Executive) is cited as party in the case and if the Partido dos Trabalhadores (the main opposition party until the election of its longtime leader "Lula" da Silva was elected president in November 2002) was a part in requesting the ADI.

Justices deciding in less than 20 instances are dropped from the dataset, since it would be quite hard to estimate their positions. The government is mentioned as part against the case in 96 of the decisions. Thus we coded it as an extra "justice" in these instances. Finally, in the 15 decisions in which the Parido dos Trabalhadores requested the ADI. Accordingly, we coded it as "for" in these cases.

These rules leave 17 justices in our sample plus two extra actors: the PT and the "Government". We will estimate a single ideal point for the government throughout the period.

[2] All but one of the decisions concern an ADI.

Estimation and Results

At this preliminary stage of our project, we decided to estimate the model using the *R* package *MCMCirt1d* by Martin and Quinn. It estimates the canonical model we described at the beginning of the paper via Bayesian Markov Chain Monte Carlo. The specific model we estimate has the following priors:

$$x_i \sim N(0,1) \tag{9}$$

$$(\alpha_j, \beta_j) \sim N(\mathbf{0}, \Sigma) \tag{10}$$

$$\Sigma = \begin{pmatrix} .25 & 0 \\ 0 & .25 \end{pmatrix} \tag{11}$$

As already mentioned, identification is attained by fixing the positions of two justices: Marco Aurélio de Mello (fixed at -3) and Célio Borja (fixed at 3). Preliminary analysis had revealed that these two justices hold very extreme positions when compared to the other justices.

The estimated ideal points

We fit a one dimensional ideal point estimation model, and the fit was surprisingly good. We are able to correctly predict 86% of the decisions, a substantial increase in accurracy when compared to the naïve estimate[3] of 79%. Thus, it seems to be safe to conclude that the preferences of the Brazilian Supreme Court justices, much like their American counterparts(Martin and Quinn, 2001), can be adequately summarized using a single predictive dimension.

Figure 2 presents the posterior summaries for the justices in our sample. They are ordered by the time they were appointed to office.[4] The results indicate that we were justified in fixing justices Celso Borja and Marco Aurelio positions, since no other

[3]The naïve estimate simply predicts that all justices votes the same way (in the direction of the majority). For this and other measures of fit of spatial voting models see Poole (2005)

[4]Francisco Rezek was appointed twice to the Court. He left the court in order to be Minister of Foreign Relations during the Fernando Collor de Mello (short) presidency, and was sent back by President Itamar France, Collor's vice-president, who took office after Collor was impeached under corruption charges.

justice is remotely close to any of the two.

In fact, justices Marco Aurélio and Célio Borja are so far away from each other that they blur the existing differences among the other justices. To highlight these we plot the posterior ranks of the justices, as seen in Figure 3. The dashed lines separate justices by the appointing President. Two patterns are immediately obvious. First of all, the model is able to differentiate justices' positions. Ilmar Galvão and Nelson Jobim are definitely on the right, Néri da Silveira is definitely on the left, etc.

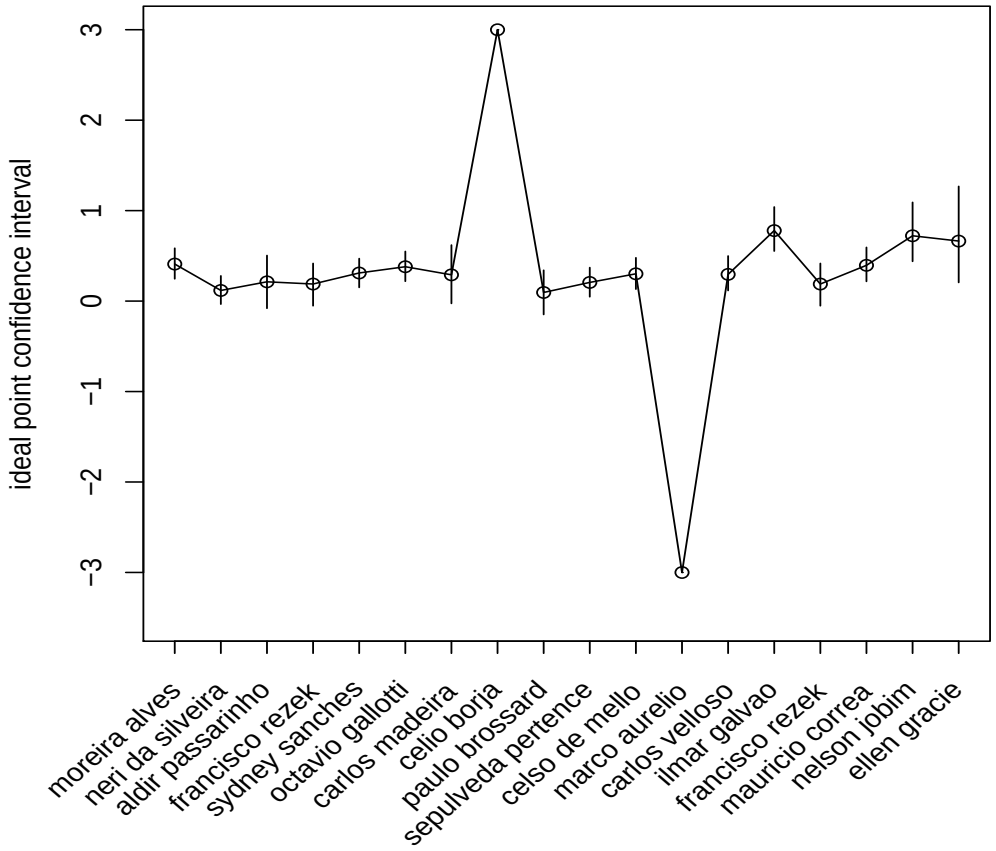
What is more surprising and interesting is the fact that Presidents appoint justices, literally, all over the map. Thus, at least for the case of Brazil, the assumption that justices are perfect representatives of the appointing president is unwarranted. Iaryczower, Spiller and Tommasi (2002) use this assumption in order to have preferences of Justices in Argentina and it will be interesting to analyze their data with ideal point estimation methods to verify if it makes more sense in that case.

Another important (although only implied) assumption in the literature about Argentina's Supreme Court is that we can locate government and opposition at opposite ends of the underlying policy space. As we report in Figure 4, we find that these two external actors do lie at the extremes of the recovered dimension. The PT is not pinned down precisely, given the very small number of decisions that inform its position. Nevertheless we can be quite sure that its ideal point is the second furthest to the left (i.e. just after justice Marco Aurélio). We are similarly confident that the "Executive"[5] is the second furthest ideal point to the right (just before Justice Célio Borja).

These findings dovetail quite nicely with the recovered ideal points of the Câmara dos Deputados Federais (the Brazilian lower chamber) Leoni (2002). A single underlying dimension explains a large proportion of the votes, but its policy content is hard to determine. All we are able to say is that a large part of policy makers decisions in the court and in Congress can be mapped into a left-right continuun with the Government in one side and the main opposition parties in the other. However, the fact that the same basic dimension seem to underlie decisions in such different environments

[5] As we explained previously we pool all Presidents positions and estimate a single ideal point.

Figure 2: Ideal points of the Brazilian Supreme Federal Court Justices



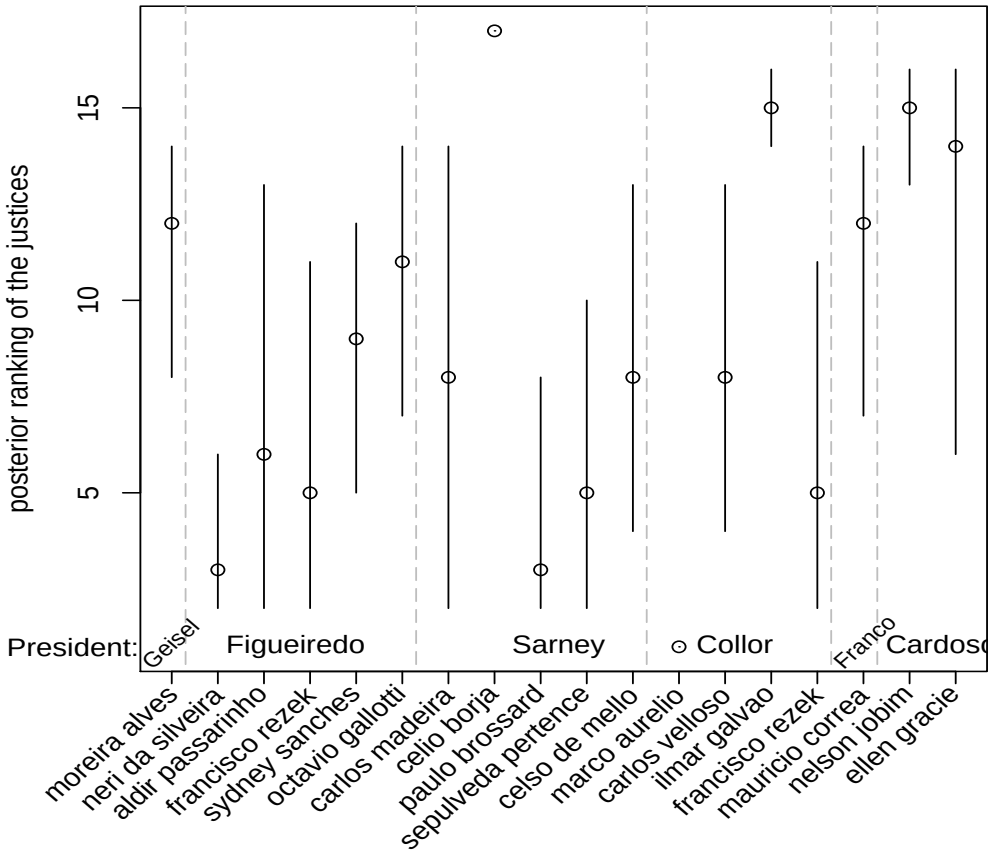
is indicative that the dimension might mean something more concrete to the political actors.

Results: Judicial Independence

We let *MCMCirt1d* estimate freely the α_j parameters. In a post-estimation step, we set the α parameters to be increasing in the direction of the support for the Executive. This is particularly simple in our case, since the Executive lies basically at one end of the continuum.

In Argentina, Helmke (2002, p.291) finds that justices "strategically defect against the government once it begins losing power.". The main independent variable predicting support for the government is, therefore, time until the next election. With this hypothesis in mind, we start by plotting variation on support for the Executive's position against time in Figure 5. The dots represent the mean of the posterior dis-

Figure 3: Rankings of the Brazilian Supreme Federal Court Justices



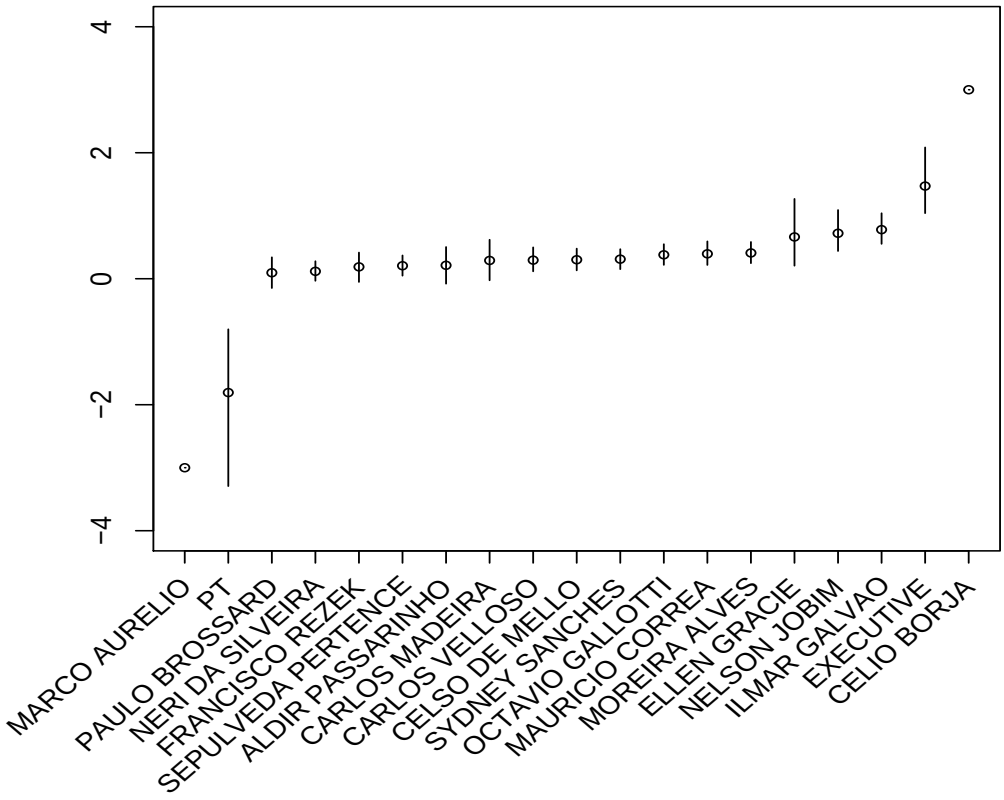
tribution of the α parameters. Note that there exists a region between one and two wherein almost none of the decisions' difficulty parameters are located. This is likely due to the fact that not many cases are decided with a sizeable number of Justices siding against the Executive. In fact, in recent years Justice Marco Aurélio is frequently the only one voting against the Executive's preferences.

Patterns in the dots are difficult to see, so we fit a locally weighted regression (Cleveland (1981)) to the data[6] The grey lines are fits corresponding to 15 random draws from the posterior, while the dark lines uses the mean posterior of α.

Overall the pattern is increasing. That is, the Court appears more and more to decide in favor of policies beneficial to the Executive. In more detail, however, the series can be divided into four distinct periods. The first, running from 1989 until 1993,

[6]We use the lowess procedure in *R*with span set to one half.

Figure 4: Ideal points of STF Justices, the Executive and the PT (Partido dos Trabalhadores)

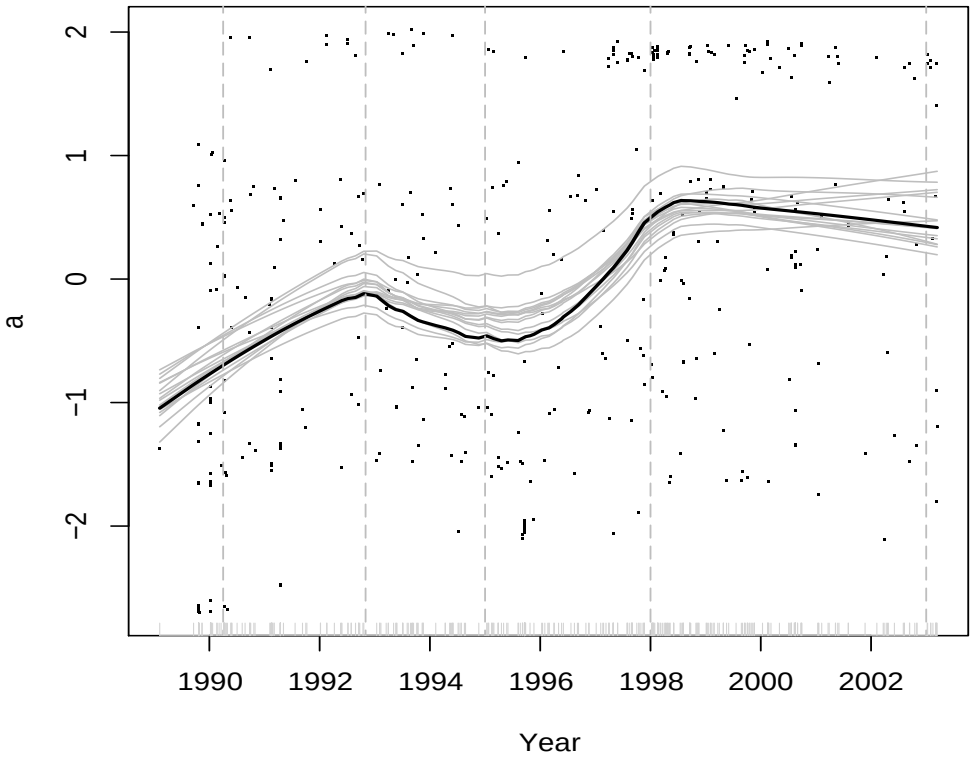


is marked by the increasing support by the Court for the policy direction favorable to the Executive. From 1993 until 1995 we see a decrease in support, followed by a sharp increase in support for the Executive from 1995 until 1998. Finnally, support for the government from 1998 until 2003 seems to be either stable, or slightly decreasing, but nevertheless very supportive of the Executive's policies.

What is the cause in these breaks in the behavior of the Court? Since the α_j are alike intercepts in regression equations, it cannot simply be a product of changes in the composition of the court.[7] Our prefered explanation centers on the relationship between the Court and the Executive. The dashed vertical lines in 1990, late 1992 and 1995 mark transitions from one president to the next, while the one in 1998 mark the

[7]In any event, the composition of the court is much more stable than the variation in the dependent variable, so it cannot be an explanation for the patterns found.

Figure 5: lowess



reelection of President Cardoso.

Although reminescent from the "strategic defection" argument of Helmke, the patterns here are quite different. For example, the election of Cardoso in 1994 was a done deal, given the support for the economic plan he helped implement as Minister of Finance. The behavior of the court, however occurs only *after* his election. Moreover, in the period of implementation of what looked like bound to be successful economic plan is *not* a period one would expect a dip in support for the Executive.

What really goes against the "strategic defection" story is the continuing increase in support for President Collor by the Court while impeachment proceeding and mass protests against him happened throughout the country. The dip in court support happened only *after* he was impeached.

It remains true that the change in the patterns are likely to be tied to elections and

changes in Executive. Our claim is that changes in power by themselves do not cause the observed patterns. What drives the changes instead is changes in the agenda before the court. If the President is trying to enact policy either against majorities in Congress (by using decrees) or against the constitution itself, the Court will seem less supportive of his policies. The key is that it is *not* that the Court is less supportive of the President, but actually of the policies themselves! The Court may not be independent from the other branches, but it not either totally dependent as the literature on Argentina implies.

We provide a rough test for this hypothesis. The dependent variable is the average of the α_j (parameterized so that higher α implies more support for the Executive) parameters calculated by semester.[8] As a proxy for the agenda setting by the President we use the number of decrees enacted by him during the current semester. As control variables we use the average of presidential popularity and a time trend.[9]

We expect that the number of decrees to have a negative effect on the propensity to vote for the government. The time trend and presidential popularity should have an effect in the same direction. The results are presented in Table 1.

We find that an increase in the number of decrees per month indeed decreases the likelihood the Court will support the President. These effects are simply shifts in the probit scale, so we might get a better sense of their magnitude transforming them back to the probability scale. Suppose a justice was equally likely to vote for as to vote against the government. An additional decree by the President is predicted to decrease the probability of deciding for the government by 4 percentage points.[10] Thus, the effect is also substatively meaningful.

Economic plans seem to increase this likelihood, but the effect is not statistically significant at conventional levels. Presidential approval has the expected (positive) effect when entered by itself (column 3). However, it does not attain statistical signifi-

[8] We actually use as dependent variable the means of the posterior distribution of α. A more integrated structural model is in our plans to the near future.

[9] The number of decrees and president popularity data was kindly (and publicly) provided by Pereira, Power and Rennó (2005).

[10] $\Phi(-0.1) - \Phi(0) \cong 0.04$

	all-variables	mpv-and-time	approval	approval-and-time
	(1)	(2)	(3)	(4)
number of decrees	-.12	-.09		
	(0.03)***	(0.04)**		
economic plan in effect	2.78			
	(1.94)			
presidential approval	-.008		0.006	-.008
	(0.009)		(0.008)	(0.01)
time	0.18	0.1		0.18
	(0.07)***	(0.04)**		(0.07)**
Const.	-.85	-.38	-.16	-1.21
	(0.5)*	(0.33)	(0.17)	(0.49)**
Obs.	20	20	20	20

Linear regression with Efron (hc3) robust standard errors in parentheses (Long and Ervin, 2000). The dependent variable comes from the posterior means of the intercept parameters (α_j) in the ideal point scaling model. Data is averaged by semester from 1989 until 2002, yielding the 20 observations noted above.

Table 1: Decrees and Court behavior

cance either. Furthermore, the direction is reversed when the time variable is included in the model.

Although we think these results are only suggestive, we think our inability to find any effect of presidential approval or economic plans on the behavior of the court, together with the significant effect of the number of decrees, lends more plausibility to the agenda effects than to the "strategic defection" story.

Conclusion

We now briefly summarize our results and outline the remaining challenges. Perhaps the most significant finding is the ability of the standard ideal point estimation model to accurately predict a large proportion of the decisions in the Brazilian supreme court. In fact, we are currently unaware of similar findings for Courts outside the United States.

We also think this is the first time abstract review cases are used to estimate positions of outside actors. We find that the "government" and the main opposition party lie at opposite ends of the ideological spectrum. This is intuitive and consistent with what is implied in the literature on the Argentine supreme court as well as the ideal point estimates recovered from roll call data in Brazil's lower chamber(Leoni (2002)).

On a more negative note, it is important to acknowledge our inability to distinguish very well among many of the justices, highliting the need to expand our dataset to include more years as well as a more diverse set of cases. Nevertheless, our results make clear that Presidents do not appoint mirror images of their own preferences to the Court. To simply assume this, as done previously in the literature (Iaryczower, Spiller and Tommasi (2002)), does not appear to be a reasonable course of action.

Our treatment of the "judicial independence" in the context of a ideal point estimation model is also novel. Although the findings wouldn't be much different if one simply used the proportion of justices voting in accordance to the government preferences[11], our approach is much more descriptive and integrated than the previous practice based on logits and probits.

Finally, we argue that the relationship we find between the number of executive decrees and the level of support of the court for government's policies should bring new light to the analysis of the Latin American supreme courts in general. That is, scholars should allow for the possibility that variation in the Court's behavior is a response to attempts by the Executive to overstep its boundaries, and not a sign of a complete lack of independence as seems to be the conventional wisdom. Courts in new democracies might be affected by the whims of the Executive, but this does *not* imply that they are driven by fear.

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[11]The correlation of the (reparameterized) difficulty estimates and this proportion is about .95.

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