

Unstable Politics

Fiscal Space and Electoral Volatility in the Indian States

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What explains variations in electoral volatility? The authors argue that fiscal space—availability of financial resources to enact policy initiatives and provide public programs—possessed by governments can explain the level of electoral volatility. Where governments have fiscal space, citizens reward incumbent parties with their continued support. But when fiscal space is constrained, the incumbent government's ability to provide state resources is drastically reduced. Citizens are therefore less likely to reward the party at the polls and are available to opposition politicians and alternative appeals. Vote-switching ensues, and the incumbent government is voted out of the office. The authors test this argument and others in the existing literature on electoral returns from state assembly elections across 15 major Indian states from 1967 to 2004. The results support the argument that fiscal space influences electoral volatility.

Keywords: *fiscal space; electoral volatility; party politics; India*

Electoral governments are expected to provide services to voters in exchange for voters' support.¹ For this trade of government programs for citizen's votes to take place, governments must possess the revenues to enact policy initiatives and to finance public programs that voters desire.

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What happens if elected governments do not have the resources to meet voter demands?

In this article, we argue that the availability of these revenues, which we term *fiscal space*, is crucial to explaining levels of electoral volatility. Where a government's budget has fiscal space, it is able to enact policy for the voters, and citizens may reward the incumbent parties with their votes at the next elections. However, when fiscal space is constrained, either for exogenous reasons such as economic crises or endogenous reasons such as excessive expenditures or low tax revenues, the ability of the incumbent government to provide such resources is drastically reduced. Citizens therefore have little reason to reward the incumbent government at the polls, and are available to opposition politicians and to alternative appeals. Vote-switching ensues and the incumbent government is voted out of the office.

This explanation for electoral volatility is significantly different from existing explanations developed to explain cross-national and intertemporal variation in electoral volatility. Scholars studying electoral volatility in Western and Eastern Europe, Latin America, and Africa, have argued in favor of explanations emphasizing changes in patterns of mobilization (Huntington, 1968; Przeworski, 1975), variation in electoral laws and party systems (Bartolini & Mair, 1990; Pedersen, 1983; Roberts & Wibbels, 1999), nature of social cleavages (Ferree, 2004; Heath, 2005; Tavits, 2005), economic voting (Remmer, 1991; Roberts & Wibbels, 1999), the timing of democratization (Mainwaring & Zoco, 2007) and the passage of time (Przeworski, 1975; Tavits, 2005). To assess the validity of our argument, we use an original data set of state assembly election returns from 15 major Indian states from 1967 to 2004. The Indian states are particularly useful for this purpose, as they exhibit both spatial and temporal variation in electoral volatility while sharing institutional arrangements. Our empirical analysis demonstrates strong effects of fiscal space on electoral volatility, even when controlling for alternative explanations. These results, we argue, have important implications for our understanding patterns of electoral politics in fiscally constrained societies.

We begin by developing our theoretical framework for understanding electoral volatility. Next, we describe the variation in electoral volatility in Indian state elections, which we argue is ideal for testing our argument. We then briefly review the principal explanations and findings from previous studies of electoral volatility before turning to statistical analyses of our data. We conclude with a discussion of the possible extensions of our argument and its implications for other puzzles of Indian politics specifically and comparative politics generally.

Fiscal Space: A Political Economy Explanation

All governments must provide the citizens they represent access to the resources of the state. This access is delivered via public policy enactments. The relationship between governments and voters, therefore, can be conceptualized as an exchange of government-financed programs for electoral support. An important feature of this relationship is that it is continuous; that is, leaders, once elected, cannot rest on their laurels but rather must persist in bringing state resources to their home districts (Evans, 2004; Fenno, 1978; Ferejohn, 1974). Accordingly, even politicians with proven records for being able to “deliver the bacon” must continually work with their colleagues in the legislature to ensure a steady flow of state resources to the district from which they are elected. Doing so successfully is thought to make politicians invulnerable to challenge, because voters recognize their ability to provide access to state resources. The key feature of this dynamic relationship, therefore, is that elected governments need to provide this support in every election cycle. As Fenno (1978) saw it, voters have a “what have you done for us lately” attitude, and leaders feel the pressure of their constant expectations.

As a result of this dynamic, every U.S. budget carries new elements of pork (Weingast, Shepsle, & Johnsen, 1981; see Evans, 2004, for a recent review of this literature). Even in a democratic system that is not fully competitive such as that of Jordan, an expansion of the legislature can lead to an expansion of state resources allocated for discretionary expenditures by politicians (Lust-Okar, 2005). In other words, any government reliant on popular support must continually be able to generate sufficient revenues to allocate as discretionary expenditures that would help its electoral prospects in the next election. This line of reasoning is consistent with the empirical observation that democratically elected governments tend to have ever-increasing public sectors (Meltzer & Richard, 1981; Tanzi & Schuknecht, 2000).²

This continuous trade of government programs for citizen’s votes is only possible if governments possess the necessary resources to enact policy initiatives and to finance programs that legislators seek. Not all state governments have equal resources. Poorer states and states whose economies are not performing well are likely to face greater resource constraints than richer and better performing states. Likewise, even if states have relatively equal levels of revenues, states can differ in terms of the discretionary funds that they have available (i.e., the amount of money they have after accounting for their principal and recurring commitments). Once such costs have

been paid, governments use any remaining resources to create new programs for citizens. We combine these two aspects of government revenues into a single concept of fiscal space.

The concept of fiscal space refers to governments' ability to spend money in the short term. To be fiscally sound, states must curtail their spending and reduce debt-financed deficits; even fiscally responsible states might nevertheless have programs that they would like to support because of perceived long-term benefits. For instance, states might wish to finance infrastructure projects to attract investment or to support education and health care services to develop their workforces and to increase their competitiveness over the longer term. Such productive spending requires immediate outlays of capital in the hopes that the initial investment will multiply in the future. But from where does this capital arise? This is *fiscal space*, which we, following Heller's (2005) formulation, define as "room in a government's budget that allows it to provide resources for a desired purpose without jeopardizing the sustainability of its financial position or the stability of the economy" (p. 32). Thus, when most of the state's revenues are locked into nondiscretionary expenditures, any additional productive spending can only be financed by running further deficits and higher debts. This inhibits governments' abilities to spend productively and, as we argue below, affects electoral politics in the states.

When governments possess fiscal space, they are able to provide state resources to their citizens or the party's supporters, and their campaign promises to continue to do so if reelected are deemed more credible by voters.³ If adequate fiscal space exists, voters return the incumbent party to power, because they recognize that the degree to which a particular constituency (partisan or geographic) is targeted with these services is a function of the support it provided the incumbent party or coalition of parties. However, when economic crises, excessive expenditures, or low tax revenues reduce the fiscal space available to politicians, the government cannot provide such resources and citizens do not believe their election-year promises to do so. In this situation, citizens do not reward the incumbent government; rather, vote-switching ensues, and the incumbent government is voted out of office.⁴

The irony of this situation is that, the incumbent ruling party dethroned, the erstwhile opposition that is now in power might be just as constrained as its predecessor by the lack of fiscal space unless it is able to redraw the contours of its financial position. If not, it too will prove unable to provide consistent constituency service, and voters will punish it at the polls at the next opportunity. In this manner, a chronic lack of fiscal space can induce

not just anti-incumbency behavior but longer term party system (or aggregate electoral) volatility as well.

Of course, not all states face equally dire financial straits, with some facing far more intractable problems than others. Our argument, therefore, is that variation in the government's fiscal space can explain variation in the degree to which voters form party loyalties and therefore aggregate electoral volatility. Specifically, our discussion thus far yields the following testable hypothesis: States with less fiscal space should experience greater aggregate electoral volatility.

Electoral Volatility Across Indian States

The Indian party system, after decades of relatively stable one-party system dominance by the Congress party, has fragmented considerably in recent years. Most analysis of Indian electoral politics has focused on what has transpired at the national level in India where over 30 parties are currently represented in Parliament and recent governing coalitions (such as the Bharatiya Janata Party–led National Democratic Alliance or the Congress-led United Progressive Alliance) have been composed of at least 10 parties. The national-level fragmentation, electoral volatility, and the anti-incumbency sentiments of the electorate have been well documented and commented on by researchers (Chhibber & Kollman, 2004; Chhibber & Nooruddin, 2000; Linden, 2004; Sridharan, 2004; Yadav, 2000, 2004).

What about at the state level? Have electoral politics in the Indian states also become more volatile over time, and what explains volatility in the Indian states? What we find is that at the state level, electoral volatility has not increased since the 1990s. In fact, electoral volatility in the states is lesser today than it was in the 1970s. In other words, although electoral volatility has indeed increased since the 1990s at the national level, this is not the case at the state level where electoral volatility has been a relatively consistent or declining characteristic of the states.⁵

Electoral volatility is defined as the “net electoral change between two consecutive elections” (Bartolini & Mair, 1990, p. 19). Aggregate levels of electoral volatility, measured as the net change in vote shares for parties competing in the elections, are used as a convenient proxy for the cumulation of individual vote shifts.⁶ Accordingly, for a given election, aggregate electoral volatility (EV in the equation) is calculated as the sum of each party's absolute change in vote share (Pedersen, 1983; Przeworski, 1975). Thus, in a party system with n parties,

$$EV = (\sum_{i=1}^n |vote_{i,t} - vote_{i,t-1}|) / 2 \quad (1)$$

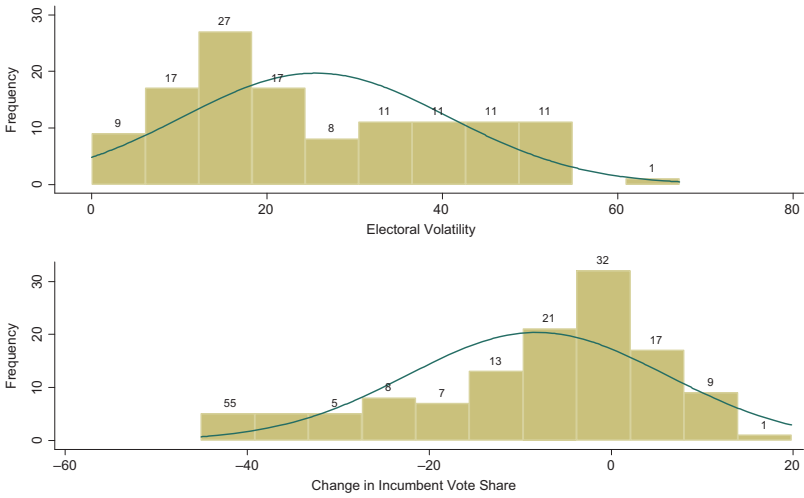
where *vote* is the share of the total vote gained by party *i* in election *t*. The sum of the absolute changes is divided by 2 to avoid double-counting to provide a convenient metric for the resulting index and because each party's gains are some other party's losses. The electoral volatility thus has a theoretical range of 0 or perfect stability to 100 or perfect instability.

Just how volatile are state elections in India? Figure 1 plots the simple frequency distributions of electoral volatility and vote shifts for the largest party in the prior election across 123 state assembly elections held in the 15 major Indian states over the period 1967 to 2004.⁷ The top histogram indicates that Indian state assembly elections have been quite volatile over the past four decades. The average electoral volatility score is 25.52%, and the standard deviation is 15.18; Figure 1 makes clear that this is not the result of a few outlying elections. Rather, the modal outcome is around 20% volatility. By comparison, across the 303 Western European elections surveyed by Bartolini and Mair (1990), only 5 had electoral volatility scores higher than 25 and none was higher than 32.1. The lower histogram in Figure 1 plots the frequency distributions of changes in vote share received by the incumbent party.⁸ Clearly, there is no incumbency advantage here, with an average swing of 8% away from the party that had the largest vote share in the previous election.⁹ Two conclusions are suggested by these data: State-level elections in India have been characterized by high levels of volatility, and being the incumbent ruling party carries little electoral advantage.

Are all states equally volatile? Are incumbents at a disadvantage everywhere? Figure 2 answers these questions. The 15 states for which we have data are arrayed in the order of increasing volatility, and it is obvious that there is significant variation in levels of volatility.¹⁰ At one extreme, there is a cluster of states with very high levels of volatility: Tamil Nadu, Haryana, Bihar, Orissa, and Assam.¹¹ These states have an average volatility score of over 30 percentage points. Comparatively, these states have volatility scores twice that of the states at the other end of the continuum: Kerala, Andhra Pradesh, and West Bengal are the most stable states.¹² Figure 2 also provides data on the average change in the incumbent party's vote share. By and large, more volatile states also experience larger anti-incumbent swings, but the correlation is not perfect, which indicates that electoral volatility cannot be reduced to simply anti-incumbency.

The data described in this section paint a vivid picture of high levels of aggregate volatility across India, but with substantial variation across

Figure 1
Electoral Volatility and Anti-Incumbency: Frequency Distribution



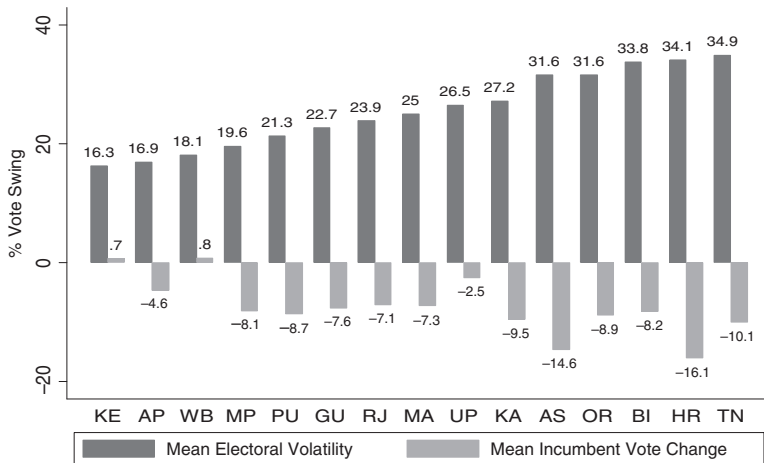
individual elections and states. There is not, however, the expected difference in volatility over the years with average volatility at 18.1 from 1967 to 1970, 31.3 in the 1970s, 26.1 in the 1980s, 23.6 in the 1990s, and 19.2 in the first 4 years of the 21st century. This evidence suggests that, if anything, volatility is decreasing rather than increasing in the Indian states over time and that claims that the 1990s were a period of greater party instability are not correct (see Linden, 2004, for a similar finding with regards to incumbency rates for individual politicians). However, it is patently true that Indian state elections have been remarkably more volatile than elections in other parts of the world, and furthermore, that some states experience higher levels of electoral volatility than others.

In the next section, we describe our measure of fiscal space and then consider alternative explanations for the observed variation in electoral volatility across the Indian states.

Explaining Electoral Volatility

Our principal focus is explaining the level of aggregate electoral volatility across states. We have argued that fiscal space affects the value of party

Figure 2
Mean Total Electoral Volatility and Largest Party Vote Change by State, 1967 to 2004



Note: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Gujarat (GJ), Haryana (HA), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), Orissa (OR), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), and West Bengal (WB).

labels for voters. If this argument is true, we should expect to see that more fiscal space reduces the level of overall electoral volatility in a state. As discussed in the previous section, we use the conventional Pedersen (1983) index of electoral volatility to measure electoral volatility.

Measuring Fiscal Space

Our main explanatory variable is *fiscal space*. More constrained governments are unable to satisfy the demands of their constituents and suffer reverses more frequently at the polls. Our measure of fiscal space was devised subsequent to interviews with state bureaucrats who were responsible for the financial affairs in two Indian states.¹³ The measure of fiscal space we develop for this article is specific to India. What constitutes discretionary expenditures may be different for other nation states. In other words, although the concept of fiscal space travels across nation-states, its empirical manifestation could be different in different states.¹⁴

For Indian states, we measured fiscal space as the difference between its total receipts on the revenue account and the sum of its expenditures on civil administration including pensions and other retirement benefits, the police, and debt servicing from the revenue account.¹⁵ To the resulting difference, we add the size of the deficit the central government allows the state government to run. Khemani (2003) has argued that the fiscal situation of Indian states is determined by the extent to which a state government is aligned with the central government.¹⁶ States that have some leverage at the center have higher deficits, because they can obtain more resources from the central government. Because state government deficits do have a direct political cause and these are therefore exogenous to the revenue generating capabilities of a state government, it is important to control either for the loans received by a state or its deficits. A state's fiscal space is therefore measured as the sum of the difference between its total revenues (TR in the equation) and primary commitments (civil administration, including pensions and other retirement benefits; police; and debt) and the deficit the central government allows it to run.¹⁷ We normalize this sum by the total size of government revenues so that our measure of fiscal space is the following:

$$\text{Fiscal Space} = [\text{TR} - (\text{CivAdm} + \text{Police} + \text{DebtService}) + \text{Deficit}] / \text{TR}. \quad (2)$$

To check the robustness of our results, we also use a nonnormalized version of the fiscal space measure, taking a logarithmic transformation of the raw fiscal space a state enjoys (see Model 2 in Table 1). In the empirical analysis reported below, we use the average fiscal space between elections $t-1$ and t to predict electoral volatility in election t on the assumption that voters are more likely to reward a party at the polls if it had been able to deliver resources consistently during its term in office.¹⁸

We believe that this measure captures quite accurately the discretionary resources that are available to an elected government to direct to voters in response to their particular demands. We do not include government spending on infrastructure as part of this calculation, because most of those expenditures take place on the capital and not revenue accounts of the state government and are often made in conjunction with directives and/or cost-sharing schemes with the central government. In other words, expenses on the capital account are not discretionary as far as the elected state government is concerned. We also treat expenses on civil administration as nondiscretionary. The officials whom we interviewed suggested that a state government's expenses on salaries and benefits are committed and have to be paid. Workers can neither be laid off nor have their salaries not paid. This

Table 1
The Impact of Fiscal Space on Electoral Volatility

Independent Variables	Electoral Volatility _t			
	Model 1	SE	Model 2	SE
Electoral volatility _{t-1}	0.085	0.072	0.063	0.062
Δ in turnout	0.002	0.129	0.020	0.148
Party system fragmentation	1.117	2.117	1.052	1.956
Δ in party system fragmentation	3.475**	1.587	3.929***	1.515
Effective number of social groups	-12.145**	5.731	-17.292***	4.323
Scheduled castes and scheduled tribes (%)	-20.704	22.717	-40.392**	19.375
Cleavage polarization	0.037	0.123	0.088	0.091
Per capita income (1994 rupees, Log)	-2.771	5.733	-3.291	4.394
Growth rate (%)	0.158	0.429	0.438	0.388
Fiscal space (%)	-0.368**	.188		
Fiscal space (Log)			-5.758***	1.272
Post-1991 dummy	-6.946*	3.603	2.481	4.041
Constant	94.787**	44.449	145.323***	44.012
Number of observations		108		108
Adjusted R ²		0.222		0.285
Random effects		Yes		Yes
First order serial correlation ^a		2.442		3.137

Note: Independent variables are measured as averages for interelection period; ΔX = one-period change in X; Robust standard errors have been corrected for clustering by state; Models were estimated in STATA 9.2 using the xtreg command and random effects option (, re).

a. For first order serial correlation, the value of $T \cdot R^2$ from Breusch-Godfrey Lagrange-Multiplier test is reported. This test-statistic is distributed χ^2 with T degrees of freedom and the 0.05 critical level with $T = 7$ is 20.28. Therefore, it is safe to say that neither model's test-statistic approaches conventional levels of statistical significance.

* $p < .1$. ** $p < .05$. *** $p < .01$.

does not mean that an elected state government may not use jobs for its supporters to ensure electoral success. A government certainly may do so, but once a worker is hired in the state sector for all intents and purposes, that employment is permanent and the election of a new government does not mean that any layoffs will take place. What this suggests is that for any given government in power, it has to treat its expenses on civil administration as a commitment. A government may increase its expenses on civil administration either by hiring more people or paying higher salaries and benefits, but whether it is able to do so is a function of the fiscal space left over from paying government employees already on the books. To examine if this is indeed the case, we examined the proportion of a state's budget devoted to civil administration. This proportion has, for the period under

study, remained by and large constant for all the Indian states.¹⁹ Because state governments in India have not increased the share of expenses devoted to civil administration, we can assume that expenses on civil administration by themselves have little relationship to electoral volatility, which is not constant over time.

Although we believe that the fiscal space explanation is plausible given the patterns we describe in the previous section, other possible explanations are suggested by the existing literature. Specifically, there are five main sets of alternative hypotheses that we control in the regression models, which can be usefully divided as follows: (a) mobilization, (b) institutional rules and party systems, (c) social cleavages, (d) economic voting, and (e) the passage of time. We summarize the main arguments and findings from each below.

Changes in Mobilization

The first serious comparative analysis of electoral volatility was conducted by Przeworski (1975), who sought to respond to Huntington's (1968) provocative claim that developing societies might be destabilized by the rapid increase in social mobilization resulting from concurrent economic and political reform (see Weiner, 1962, for an application of this argument to India).²⁰ The main effect of mobilization on electoral volatility occurs via the introduction of new or previously abstaining voters with different preferences than the regular voters (see Bartolini & Mair, 1990, p. 174).²¹ Vanderbok (1990) argues that the apparent "waves" in support for the Congress party in India are actually the result of differential levels of mobilization by the opposition party. Yadav (2000) argues that a second democratic upsurge occurred in the 1990s with the mobilization of hitherto unmobilized voters, especially among the poor and the disadvantaged.²²

The mobilization hypothesis thus suggests that changes in the size of the electorate might affect electoral volatility, especially if the newly mobilized have different preferences. Because all Indian elections have operated under universal franchise, the only changes to the electorate's size occur through changes in the level of turnout.

Institutions, Parties, and Party Systems

Previous work has argued that institutional factors such as presidentialism and district magnitude should affect volatility by making politics more personalistic and making the party system more restrictive (e.g., Mainwaring, 1998). Indian state assemblies, however, share the same structure, and all

elections are conducted under first-past-the-post rules. As such, formal electoral-institutional arguments provide no leverage in this context. Pedersen (1983) linked party system format to electoral volatility, arguing that there exists a positive relationship between the number of parties competing in the system and the level of electoral volatility. This hypothesis finds empirical support in studies of Western Europe (Bartolini & Mair, 1990; Pedersen, 1983), Latin America (Mainwaring, 1998; Remmer, 1991; Roberts & Wibbels, 1999), and the postcommunist states (Bakke & Sitter, 2005; Tavits, 2005).²³ To capture the effect of party system format, we control for the level of party fragmentation in the electoral arena, which we measure using the commonly used index of the effective number of parties (Laakso & Taagepera, 1979).²⁴ We also control for changes in the level of party fragmentation. If the party system in a given states changes, such that a two-party system splinters into a multiparty system or vice versa, then we would expect electoral volatility to be affected. Increases in party system fragmentation should increase electoral volatility.²⁵

Others have built on Pedersen's (1983) insight to emphasize the ideological polarization of the party system. Arguments for this dimension are principally that more ideologically polarized systems are evidence of greater institutionalization of existing social cleavages and should therefore be more stable (Bartolini & Mair, 1990; Tavits, 2005).²⁶ For the polarization of the party system, we use Heath's (2005) index of cleavage polarization.²⁷ Heath provides convincing survey evidence that electoral volatility in India can be explained by the extent to which social cleavages are politicized and polarized by the party system. His cleavage polarization index attempts to measure the extent to which a different political party represents each social cleavage. States in which parties can generate cross-cleavage support are therefore less polarized. To construct this index, Heath examines "the relationship between caste-community and the cluster voted for, and use[s] an index of dissimilarity to measure the degree to which political competition is polarized along caste-community lines" (p. 189). One limitation of Heath's data is that they are constructed from a single national survey. We use the reported value for each state as a constant over time, thereby making the strong assumption that the level of cleavage polarization has remained unchanged.²⁸

Social Cleavages

Tied intimately to the mobilization and polarization arguments is an emphasis on the role social cleavages play in the political arena and therefore

in determining electoral volatility. This set of arguments draws its inspiration from a well-established literature that finds the roots of modern party systems in historical social cleavages (see Lipset & Rokkan, 1967, for the seminal statement of this claim). Bartolini and Mair (1990) call this “cleavage closure” and argue that strong party cleavage linkages stabilize party politics by making cross-party alliances less likely and providing fewer viable alternatives to voters. Extensions of this cleavage argument to non-Western societies therefore explain higher levels of electoral volatility by the low identification of parties with salient social divisions (Mainwaring, 1998) or the multiplicity of possible social divisions that might be politicized for electoral support (Ferree, 2004; Tavits, 2005). It is interesting that Tavits, in her analysis of the post-communist European states, finds no evidence of any effect of ethnic cleavages but does find that social cleavages increase electoral volatility during economic downturns.

To explore the role of social cleavages, we use two demographic variables. First, we include census data on the proportion of the total population each major religious group comprises. We transform these data into a measure of the effective number of social groups. Second, we include separately the size of the scheduled castes and tribes as a share of total population, because the mobilization of this group has been documented by Yadav (1996).²⁹

Economic Voting

How does economic performance prior to elections affect electoral volatility? From the perspective of electoral volatility, the important question is how economic performance might affect whether voters change the party for which they vote. Note that economic voting can be taking place in the sense that economic conditions shape vote choices, and yet economic conditions might have no effect on electoral volatility if voters do not switch their votes from one election to the next. If the voter supported the current incumbent in the previous election (i.e., backed the eventual winner), does poor economic performance cause that voter to switch his or her support? Alternatively, if the voter had supported the current incumbent’s opponent in the previous election, does good economic performance cause that voter to alter his or her choice and reward the incumbent?

Bohrer and Tan (2000) argue that “austerity” plans enacted by European states to bring their economies into compliance with the European Monetary Union requirements caused voters to support parties of the Left in greater numbers than before. In the Latin American context, Remmer (1991) found that “elections held under conditions of economic crisis . . . consistently

produced losses for governing parties” and “in the overwhelming majority of cases, [these] elections resulted in the defeat of the governing party or coalition” (p. 781). Roberts and Wibbels (1999) confirm the finding of economic growth’s stabilizing effects but find mixed statistical support for the claim about inflation.³⁰

The economic voting thesis is partially accounted for by virtue of our decision to normalize fiscal space as a share of total state revenues. Better performing states have higher tax bases and therefore should enjoy higher levels of revenues. In addition, we add two explicit measures of economic performance. The state’s per capita income, measured in 1994 rupees, provides an indicator of the overall level of development in the state. The average annual growth rate of per capita income since the previous election serves as an indicator of the incumbent government’s performance.³¹ Both are expected to reduce electoral volatility.³²

Time

It is widely accepted that time, whether operationalized as the age of the regime or of the main parties, is a good proxy for the institutionalization of the political system.³³ The longer voters have been going to the polls, the more likely socialization of these voters will be deeply rooted and the less likely voters will suddenly switch their votes. Applied to India, three factors suggest that the post-1990 period should differ systematically than the earlier period. First, Yadav (1996) argues that mobilization of lower caste voters has increased substantially in the 1990s, which should lead to higher electoral volatility according to the mobilization hypothesis. Second, as noted earlier, the voting age was lowered from 21 to 18 in 1989. If this change had an effect on volatility independent of the effect it had via changes in turnout, then it should show up in this time trend. Third, India’s economy was liberalized in 1991, and the economy has been growing more rapidly since. To account for these potential differences, we include a dummy variable for the post-1991 period.

A Statistical Analysis of Electoral Volatility in India

We test the fiscal space hypothesis against these alternative explanations on data for the 138 state assembly elections held between 1967 and 2004 in the 15 major Indian states.³⁴ The analysis of time-series cross-sectional data involves a host of statistical issues, the most important of which are serial correlation, heteroskedasticity, and omitted variable bias. To address these concerns, we estimate our models with a lagged dependent variable and correct the standard errors for clustering by state.³⁵ To capture any unobserved

heterogeneity across states, we do include a random intercept term.³⁶ Therefore, the regression models are random effects models of the following form:

$$EV_{i,t} = \alpha (EV_{i,t-1}) + \beta_1(\Delta Turnout_{i,t}) + \beta_2(ENoP_{i,t-1}) + \beta_3(\Delta ENoP_{i,t}) + \beta_4(ENoGroups_{i,t}) + \beta_5(SC\&ST_{i,t}) + \beta_6(Polarization_{i,t}) + \beta_7(RealIncome_{i,t-1}) + \beta_8(Growth_{i,t}) + \beta_9(FiscalSpace_{i,t}) + \beta_{10}(Post1991_{i,t}) + v_i + \epsilon_{i,t} \tag{3}$$

where, *EV* is a measure of electoral volatility in state *i* in election *t*, α and β_k are *k* + 1 coefficients to be estimated, v_i are random effects, and $\epsilon_{i,t}$ is a white-noise error term. Table 1 reports the results from the estimation of this equation.

Overall, the results are supportive of our argument. The fiscal space variable is robust to specification and is correctly signed and statistically significant in both models reported in Table 1. And the size of the effect is sizable. In Model 1, for instance, the estimated coefficient on fiscal space is -0.37. Put another way, for each additional percentage point of fiscal space, electoral volatility declines by 0.37%. Given the range of this variable in the estimation sample, the effect of going from the minimum to the maximum level of fiscal space is to reduce electoral volatility by approximately 13 percentage points, or about 20% of the total range of the dependent variable, which ranges from 3.15% to 67% in the estimation sample.

Of the other variables included in the analysis, three are worthy of some discussion. First, the change in party system fragmentation is an important factor in understanding electoral volatility. As fragmentation increases, so does the electoral volatility, which suggests that one source of electoral volatility in India is the creation of new parties. Could party fragmentation be linked to fiscal space? We tested for this possibility and found no evidence that could link fragmentation to fiscal space. Second, a surprising result is that the effective number of social groups is negatively related to electoral volatility, which runs counter to conventional wisdom. More diverse states in India have more stable voting patterns. We think this is because in these states, the parties that contest elections have to locate themselves closer to the different groups, thereby strengthening the links between members of an ethnic group and a party. Finally, the post-1991 indicator variable is negatively signed and statistically significant. The robustness of this finding is surprising for two reasons. First, popular statements have observed that in the recent period, Indian elections have been particularly unstable.³⁷ Second, the era since 1991 is supposed to be one where the budget constraints became harder and hence, *prima facie*, we

would expect to see higher levels of electoral instability. But the compulsions of coalition politics at the national level have kept state budget constraints soft, thereby keeping electoral volatility in the states low.

Relative to the other explanatory factors linked to electoral volatility, how large an effect does fiscal space have? We use our regression estimates to calculate the predicted effect of each variable found to be statistically significant in Model 1 above. The post-1990 period has experienced a 6.95% reduction in electoral volatility compared to earlier elections. The largest predicted effects are those associated with changes in the party system (8.84%), though those of fiscal space are very similarly sized (6.29%).³⁸ Both of these factors have a far greater impact on both dependent variables than does the social cleavage measure (-0.63%). Furthermore, of these three factors, only fiscal space is mutable in the short run, because party system fragmentation and social cleavages tend to be relatively stable features of the Indian states.

To summarize, our statistical analysis of the determinants of electoral volatility across state assembly elections during the period 1967-2004 in the 15 major Indian states yields robust support for our hypothesis that the fiscal space enjoyed by some state governments in India has made control of the reins of policy more important in those states. Accordingly, parties and party labels are more powerful in those states, as voters realize that access to state largesse runs through political parties. In states with less room for political maneuver, large public policy initiatives are simply not feasible. In such states, reelection has less to do with being able to direct public goods toward one's constituency, because these are scarcely being produced. Instead, the currency for politicians is providing smaller, more private goods to members of their constituencies and developing personal reputations. Here, the party label loses its value both for politicians and for voters, resulting in higher levels of electoral volatility.

Conclusion

In recent years, students of Indian politics have focused much attention on the fragmentation of the party system and its consequences for various aspects of political and economic performance. The research presented suggests that although it is indisputably true that Indian elections experience greater levels of electoral volatility than in other parts of the world, an analysis of state assembly election returns from 1967 to 2004 reveals that average electoral volatility has decreased steadily over time. However,

considerable variation exists across the Indian states in their levels of electoral volatility. To explain these differences, this article presents a new explanation rooted in the political economy of the relationships between governments and voters. Our argument is that voters support parties in expectation of continually benefiting from state expenditures on public services. When states lack the fiscal space necessary to provide public services, voters have little reason to reward parties with their continued support and become available to alternative appeals. Our empirical analysis provides robust support of these claims, demonstrating that higher levels of fiscal space reduce aggregate electoral volatility.

These results have important implications for our understanding of democratic politics in India and more generally in the developing world. In particular, the explanation developed here makes clear that economic conditions can shape the ability of governments to retain power in democratic elections, even after controlling for the rate of economic growth. Governments that are unable to provide services to the public because of financial constraints suffer at the polls and are more likely to lose power. In India, this has resulted in low incumbency success rates, but the implication of this finding is that introducing democracy in countries where the government has few discretionary resources runs the risk of unsuccessful consolidation as governments struggle to satisfy the demands of society.

Notes

1. This trade, so to speak, has been linked to the growth in the size of the public sector. This growth has been linked to the extension of the franchise, electoral incentives, and party competition, all of which pressure the state to cater to the demands of the masses and of organized interests (Aidt, Dutta, & Loukoianova, 2006; Boix, 2001; Meltzer & Richard, 1981; Tanzi & Schuknecht, 2000).

2. This basis of this assumption is no different than the standard claim in other democratic contexts that elected politicians seek to provide pork to their constituencies (Weingast, Shepsle, & Johnsen, 1981). Constituency service therefore becomes essential to politicians' re-election fortunes (see also Fenno, 1978). Because any individual politician cannot generate and direct pork to his or her constituency without the collaboration of others in the legislature, a politician's ability to do so is a function of his or her ability to forge a winning coalition within the legislature. By being a member of a party that has a majority of seats in the legislature or that can enter a coalition with other parties, individual legislatures can enter logrolls and provide their constituencies the service needed to secure their votes. This is especially true in majoritarian systems, such as those in place in Indian states, where the majority party can implement its policy agenda without much opposition. Therefore, backing a candidate from the majority party is important if the voter is hoping to benefit from government policies.

3. Governments can choose to create public policy programs aimed at delivering collective goods or focus on the delivery of patronage to their clients. In either case, their promise to

erstwhile supporters to do so is only credible if the state possesses the necessary resources. As such, beyond the basic democratic requirement that a party must secure the support of a plurality of voters to win office, our argument does not require us to assume that governments prefer public good provision to patronage or vice versa. Both strategies—or any mixture of them—still requires fiscal space.

4. One option available to a cash-strapped government is to improve its fiscal situation by reducing expenditures or increasing tax revenues. The former strategy is politically difficult, and most governments are loathe to cut spending on law and order services or to lay off government services. Similarly, governments must continue to meet their debt servicing obligations or run the risk of losing future access to credit. Furthermore, research by the International Monetary Fund (2003) has shown that few governments are able to reduce their budget deficits by increasing tax collection. A natural extension of the research presented here would be to endogenize the fiscal space available to governments. For now, we focus on establishing the analytical utility of the concept for explaining variations in electoral volatility.

5. Linden (2004), in a study of incumbency rates for elections to state assemblies, finds that the incumbency rates for individual politicians have been relatively low and that they have not changed much since the 1970s.

6. It is in fact possible for there to be electoral volatility at the aggregate volatility without any individuals changing their votes—due to the entry of new voters—and for there to be complete individual volatility without any aggregate volatility, if all the individual vote shifts perfectly balance each other. However, Bartolini and Mair (1990) conclude that aggregate electoral volatility is an appropriate indicator of individual vote shifts.

7. We have data for 138 elections, but the first observation for each state is dropped, because we cannot calculate the change from the previous election. The states included in this analysis are Andhra Pradesh (AP), Assam (AS), Bihar (BI), Gujarat (GJ), Haryana (HA), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), Orissa (OR), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), and West Bengal (WB). These states together are home to over 90% of the Indian population. A complete listing of elections for which we collected data is available from the authors. All electoral data are drawn from the Electoral Commission of India (<http://www.eci.gov.in>).

8. Throughout the article, we use “ruling party,” “incumbent party” and “incumbent” synonymously to refer to the party that has formed the government at the state level. Because the largest party does not always form the government, we identified the ruling party by checking the party affiliation of the chief minister of the state.

9. Nor is this an artifact simply of anti-Congress swings after Indira Gandhi’s imposition of Emergency in the mid-1970s. The elections that took place during the Janata reign of 1977-1980 certainly had large anti-Congress swings, but even when elections held in this period are excluded from the analysis, the mean incumbency swing is 5.6 percentage points against, and the median swing is 1.2 points against.

10. Linden (2004) finds that, after 1991, incumbent members of the legislative assemblies were 14% less likely to win in legislative assembly elections in India.

11. Tamil Nadu also has a high variance around the mean, marking it as particularly unstable and volatile.

12. Note, however, that Andhra Pradesh has a high variance around the mean, which suggests that it has had a few destabilizing elections amid a record of overall stability.

13. We interviewed finance commissioners of the states of Assam and Bihar. For the analysis in this article, we used revenue expenses that were not part of the planning process (i.e., nonplan) and were also not categorized as developmental. The finances of state governments in India are

divided into two broad categories—social and economic services constitute developmental expenditures—whereas expenditure on general services is treated as nondevelopmental.

14. The components of fiscal space might also change over time. We would argue, for instance, that the question of how foreign direct investment (FDI) and other resource inflows affect the fiscal space of Indian states is likely to be an interesting question for future research. We do not include such resource inflows in our analysis because, at this point in time, actual revenues from FDI projects, although increasing, are still a very small portion of overall state budgets. To illustrate this point, consider Tamil Nadu, the third-largest destination for FDI in India. For the fiscal year 2004–2005, Tamil Nadu's total revenue receipts were approximately \$6.3 billion (at 45 rupees per dollar), which is the same as the total cumulative amount of approved FDI projects in the state since 1991 (author's calculations, and Tamil Nadu government's Tenth 5-Year Plan, respectively). Most of these approved projects are still in the process of being realized, and their benefits are even further in the future. Moreover, in the 6-month period from April to September 2006, Tamil Nadu generated \$437.3 million in FDI inflows, which is under 7% of the 2004–2005 revenue receipts ("FDI inflows double," 2006). Again, we provide these figures not to suggest that FDI inflows are not an increasingly important aspect of the Indian political economy, but rather that, for almost all of the period covered in our article, they comprise but a small part of the story. Furthermore, FDI is not money in the discretionary coffers of the state government.

15. This definition is derived from our knowledge of the fiscal situations of the Indian states and our interviews with the finance commissioners of Assam and Bihar. Although other categories of spending might be argued to be fixed and recurring, we would argue that the three categories identified here form the largest share of nondiscretionary spending. In 2004–2005, these categories accounted for 85% of the general services expenditure by the Tamil Nadu government (authors' calculations). Scholars wishing to apply the notion of fiscal space in other settings would need to tailor the set of categories deemed "fixed and recurring" according to the specifics of that situation.

16. See also Khemani (2007). The literature on fiscal federalism is growing. We refer interested readers to Rodden (2002, 2003) and Rodden and Wibbels (2002) for recent surveys of and contributions to this literature.

17. All subnational fiscal data are drawn from annual issues of the Reserve Bank of India (1967–2004).

18. The data for the independent variables are annual in their original format. Here, we construct averages for each interelection period to include in the regression model. To take the most relevant example: To predict electoral volatility in election year t , we use the average fiscal space enjoyed by the state across the years since the last election. This is true for all the independent variables. Doing so provides some check against reverse causation, because the variables are temporally ordered and also because we are not capturing the effects of a single bad year.

19. Data are available from the authors.

20. A similar argument was later advanced by Sjöblum (1983), who theorized that increasing social and spatial mobility of voters resulting from economic development in industrial societies should lead to higher levels of electoral volatility. As voters became more mobile, their political preferences regarding government policy were likely to become more fluid. Moreover, the growth of the public sector and the increasing complexity of the economy made government economic policy less certain, leading voters to be available to alternative appeals.

21. Tests of the mobilization hypothesis have been limited by lack of accurate data over time cross-nationally (but see Bartolini & Mair, 1990, and Przeworski, 1975, for early efforts).

22. The voting age in India was lowered from 21 to 18 in 1989. Although this change did add to the electoral rolls, there is no evidence that it changed the rates of turnout or the composition of the electorate in any systematic manner. Indeed, to the extent that existing theories argue that younger voters are more fluid, a plausible expectation would be that the change in voting age should have led to increased volatility post-1989. However, our data suggest that the opposite is true.

23. Using survey data, Heath (2005) finds that people living in Indian states with multi-party systems are more likely to report having switched their votes from one election to the next (p. 183).

24. The effective number of parties in a given election is calculated as $N = 1/\sum v_i^2$, where N is the effective number of parties, and v_i is the vote share of party i . Our results are robust to using instead the effective number of parties represented in the legislature, which substitutes seat shares for vote shares in the above formula.

25. Bartolini and Mair (1990) argue that European party systems have been fairly stable if one examines block volatility rather than total volatility. Similar claims about the influence of coalitional politics in influencing electoral results in India are made by Sridharan (2004) and Heath (2005). In this analysis, we focus on party-level electoral volatility, because coalitional politics has been a relatively recent phenomenon in Indian politics and moreover has been mainly observed at the national level rather than the state level.

26. Remmer (1991) points to the vulnerability of minor extreme parties as one reason such more polarized systems may be more volatile over time (p. 791). An interesting empirical question for future research is therefore whether the volatility-dampening effect of increased polarization is counteracted by the volatility-inducing effect of increased party fragmentation.

27. See Heath (2005, pp. 186-188 and footnote 12) for more detail on the construction of this measure.

28. Our results are robust to the exclusion of this variable. Results are available on request.

29. We thank Steven Wilkinson for sharing these data with us. As an alternative indicator of the social cleavage structure in each state, we used Heath's (2005) measure of the number of effective clusters in each state, which captures "the number of politically mobilized cleavage groups" (pp. 186-188, footnote 12) in each state. Our results are not affected. We prefer the Wilkinson and Yadav data, because they vary over time.

30. The inflation variable, in either its level or change form, is statistically significant in only one of six specifications predicting electoral volatility and in just one of three models predicting incumbent vote change (Roberts & Wibbels, 1999, Tables 2, 3, and 4).

31. Data on income refer to per capita net state domestic product at current prices, which we convert to real figures using national-level inflation data. The source for these data is the Indian Budget, available online at <http://indiabudget.nic.in>.

32. A possible concern arises in controlling for these economic variables, because they are likely correlated with a state's fiscal space. In our sample, a state's growth rate is correlated with fiscal space as a percentage of total revenue at a level of 0.25; when we do not normalize the measure of fiscal space, the correlation increases to 0.38. Likewise, the correlation of per capita income with the two measures of fiscal space is 0.44 and 0.57, respectively. There is therefore little risk of multicollinearity being a problem, and this is borne out by the variance inflation factors.

33. Remmer (1991) considers the age of the regime in her analysis and finds little evidence for the claim that new democracies were particularly vulnerable to crisis. Rather, she argues that the "relative immunity of the older democracies" (p. 785) reflects the stabilizing influence of their two-party systems. Roberts and Wibbels (1999) measure the average age of parties receiving more

than 10% of the vote in the previous election, while Tavits (2005) controls for the average age of parties in Parliament. Tavits also includes a trend variable that counts the number of years since the first democratic election. Most recently, Mainwaring and Zoco (2007) conclude that the critical factor is when democracy was instituted, but not necessarily its age.

34. The regressions reported in Table 1 are estimated on a sample of 108 elections. Electoral volatility captures aggregate changes between two elections; therefore, we cannot calculate the volatility score for the first election in each state, which requires us to drop the 15 observations (1 election per state). Including a lagged dependent variable results in the loss of another 15 observations by a similar logic. Our results do not change if we drop the lagged dependent variable from the model, but we report the versions with it, because these are more conservative.

35. For technical articles justifying this choice of technique, see Banerjee, Galbraith, and Dolado (1990), Beck (1991, in press), and Beck and Katz (1995). Examples of recent articles using these techniques are Chhibber and Nooruddin (2004), Mainwaring and Zoco (2007), and Nooruddin and Simmons (2006).

36. The results do not change if we estimate the models without random effects. We do not include state fixed effects, because our purpose is to exploit cross-state variations in fiscal space to explain variation in electoral volatility, the cleavage polarization measure is constant over time, and the other social cleavage variables change very slightly over time.

37. Our data do not allow us to investigate whether this volatility-dampening effect of the 1990s is due to changes in the electorate, party system, or economic performance, and we leave this question for future research.

38. These predictions are generated by moving the variable in question from its minimum to maximum in-sample value and holding all other variables at their mean or modal values.

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