Motivation

- Are Political Budget Cycles (PBCs) the only “tool” an incumbent strategically uses for electoral gain?

- Is the passage of redistributive policies an adequate signal to voters of an incumbent’s competency?
Opportunistic Political Business Cycles.
- $\pi$ vs. unemployment $\rightarrow$ Phillips curve
- Adaptive expectations (voters can be fooled)
- (Nordhaus 1975; Lindbeck 1976; Tufte 1978)

Partisan Political Business Cycles
- Hibbs’ (1977) response to opportunism
- Ideological priorities on where spending should go
- Still adaptive expectations

Rational Expectations (Rogoff and Siebert 1988; Rogoff 1990)
- Incumbent *signals* to voters of competency
- Asymmetric information replaces irrationality
Political Cycles: Recent Developments

- **Political Budget Cycles**
  - Move towards developing countries (Brender & Drazen 2005)
  - Taxes decrease, Spending on public services increase (Khemani 2004)
  - Transfers occur just before elections; decrease after elections (Akhmedov & Zhuravaskaya 2004)

- **“Conditional” Political Cycles**
  - Ideology: left-wing parties spend more (Veiga & Veiga 2007)
  - Competition: spend only if competition is intense (Chhibber & Nooruddin 2004)
  - Visibility: Spending on roads & infrastructure (Drazen & Elsava 2010)
  - Targeting: Spend only in regions you need to win/may lose (Aidt et al. 2011)
Non-budgetary areas that also exhibit some political manipulation/temporal component...distribution and timing

- Lending to farmers, loan forgiveness (Cole 2009)
- Timing of avoidable wars (Hess & Orphanides 1995)
- Bureaucratic approval of environmental licenses (Ferraz 2007)
- Prices and output of politically-connected sugar mills (Sukhtankar 2012)
Does the passage of distributive policies exhibit cyclical properties like spending (i.e. timed around elections)?

The passage of policies used to redistribute/target/reward voters is timed strategically; politicians will use these policies as a visible component to win voter support before an election.

- Efficiency: Affect large swaths of voters (esp. dev. countries)
- Bypass spending constraints
- Signal of competency
- More palpable to voters than campaign promises
- Advantageously time what would have happened anyway
Unifying theoretical and applied statistical concepts:

- **Theoretical Concept → Decision-making**: does the incumbent pass a redistributive policy strategically?

- **Statistical Concept → Nominal choice**: Incumbent can either pass a policy, or not.
Develop Behavioral and Applied Statistical Analogues:

- **Behavioral Concept → Utility maximization:**
  - Voter wants to maximize utility across time through vote choice
  - Incumbent tries to maximize utility through policy and spending
  - Some *Conditional expectations*...discount the future
  - Also some *Uncertainty* about economic conditions

- **Statistical Concept → Binomial choice:** Is a redistributive policy passed in region \( i \) in year \( t \)?
Unify and Evaluate the Analogues:

- **Linkage between the two:** In order to maximize their utility, incumbents will time redistributive policy to occur before the election.
  - Less likely when incumbent can shift spending towards areas visible to voters (PBC)
  - More likely when incumbent must “pull out all the stops”...e.g. when the economy is poorly performing
The Theoretical Model

- Two-period game $t \in \{1, 2\}$; Election after $t = 1$

- Two types of voters $V \in \{R, P\}$, always more poor than rich
  1. Poor, of proportion $n$ where $n > 0.50$
  2. Rich, of proportion $1 - n$

- Two citizen-politicians $A$
  1. Incumbent, $A = I$
  2. Challenger, $A = C$
Politicians

- Reputation
  - Or quality/legacy/skill...

\[ \epsilon^l \in \{\epsilon^l, \bar{\epsilon}^l\} \]  \hspace{1cm} (1)

- Common knowledge based off the previous performance of the incumbent in office.
Politicians

- Reputation/skill matters for supplying general public good:

\[ \sum_{j=1}^{N} g_t = \sum_{j=1}^{N} \tau + \epsilon^I \] (2)

- \( \tau \) is flat tax, given exogenously
- \( \uparrow \epsilon^I \) will \( \uparrow g_t \), ceteris paribus
- Can also pass redistributive policy \( \zeta_t \)
  - \( U_t^{j,R} = -\zeta_t \)
  - \( U_t^{j,P} = \gamma \zeta_t \)
- Entire cost paid by rich
- Redistributive policy benefits the poor
- Discount \( \gamma \in [0, 1] \)
  - Accounts for credibility (\( \uparrow \gamma \), \( \uparrow \) credibility)
  - Deadweight loss
Relative economic advantage, $\alpha_t$

Drawn each time period

Function of average incumbent advantage and a i.i.d. stochastic shock, $\eta_t$ with mean zero

$$\alpha_t = \bar{\alpha} - \eta_t$$

where $\eta_t = (\eta_t^{\text{Expectation}} - \eta_t^{\text{Actual}})$

Incumbent knows $\bar{\alpha}$, not $\alpha_t$

- More risk-adverse incumbent may assume lower $\bar{\alpha}$
Order of Play

- **Time \( t = 1 \)**
  1. Everyone observes \( \epsilon' \), the incumbent’s skill/legacy/reputation. Incumbent forms \( \bar{\alpha} \) based off prior economic information.
  2. Incumbent decides on government spending and if he will pass policy.
  3. Voters observe government spending and the signal of the policy that is passed.
  4. Everyone observes \( \alpha_t \)
  5. Incumbent runs against citizen-voter challenger. If \( > 1/2 \) of voters support him, incumbent remains in office.

- **Time \( t = 2 \)**
  1. The incumbent (if re-elected), spends on government goods.
  2. If land reform has not been passed, the incumbent has the option to pass it.
Voter Utility

\[ W^j,v = U_1^{j,v}(I) + \rho(U_2^{j,v}(A)) \] (4)

where

\[ U_1^{j,R}(I) = y_1 - \tau + \ln(\tau + \epsilon^I) + \alpha_1 - \zeta \] (5)

\[ U_1^{j,P}(I) = y_1 - \tau + \ln(\tau + \epsilon^I) + \alpha_1 + \gamma \zeta \] (6)

- \( W^j,v \): Present expected util.
- \( U_1^{j,v}(I) \): Util. in \( t = 1 \) under incumbent for type \( V \)
- \( \ln(\tau + \epsilon^I) = \ln(g_t) \) Note decreasing returns
- \( \rho(U_2^{j,v}(A)) \): Discounted util. in \( t = 2 \) for type \( V \) under politician \( A \)
- \( y_t = \) non-storable income
Voter Utility

Vote for incumbent if:

\[ U_1^{j,v}(I) + \rho(U_2^{j,v}(I)) - \rho(U_2^{j,v}(C)) > 0 \]   (7)
Incumbent’s Utility

In each period:

$$\Omega_t^l = nW^j,P + (1 - n)W^j,R + D\chi$$  \hspace{1cm} (8)

- $\Omega_t^l$: Incumbent utility
- “rents”/“desks” given by $\chi$
- $D = \text{dummy variable} = 1$ if incumbent is in government
Proposition I:

An incumbent gains more from passing a policy before an election than not passing, or passing it after

\[ E[\Omega^I_t, \text{Passage}] > E[\Omega^I_t, \text{No Passage}] \]  \hspace{2cm} (9)

simplified to:

\[ n > \frac{1 + \rho(1 - \gamma)}{\gamma + 1 + \rho} \]  \hspace{2cm} (10)
Proportion of Poor Voters (n)

\[ \rho = 0.05 \]
\[ \gamma = 0.25 \]
\[ \gamma = 0.50 \]
\[ \gamma = 0.75 \]
\[ \gamma = 0.95 \]
Proposition II: Fiscal Manipulation

Passing a policy serves as a substitute to government spending

\[
\max_{g_t} E[\Omega^I_{\text{Passage}}] > \max_{g_t} E[\Omega^I_{\text{NoPassage}}]
\]  

(11)

But..... end up with \( \frac{1}{g_t} > \frac{1}{g_t} \)

- How to take into account policy passage?
- Some tradeoff \( (\zeta \frac{\zeta}{g_t}) \)? Use \( \zeta \) and \( g_t \) to make a constraint function?
Proposition III: The Economy

When the economy is especially bad, an incumbent may use both strategic policy passage and government spending to win the election.

- How to take into account $\alpha$ while simultaneously addressing issue in Proposition II?
Increasing complexity of the propositions:

- **$H_1$ Simple**: Policies are timed to occur before an election $\rightarrow$ Public Policy Cycle

- **$H_2$ Substitutes**: More traditional political business cycle spending ($g_t$) means lower likelihood of public policy cycle

- **$H_3$ Conditional Substitution**: Pre-election conditions ($\alpha$) may interact to affect the relationship between both
  - Substitute effect *only* occurs when conditions are good
  - In bad conditions, incumbent pursues *any* and *all* channels of manipulation
  - Conditions $\rightarrow$ economic, expected competition, public support...
Figure 1: Darker color $\rightarrow$ greater $Pr(\text{policy cycle})$
...giving land is like parting with your soul or body. People are more attached to land than anything

—Governor of Karnataka, 1976

How is Indian land reform an ideal candidate for political policy cycles?

- Reforms delegated to states
- Indian state elections *most* important type
  - Staggered state elections
  - Must be held every 5 years
  - Highest voter turnout during state elections
  - Local government largely inactive during this period (1957–1992)
- Large variation within a single developing country
- Visible policy, appeals directly to certain constituencies
  - Past history of land inequality
  - Popular movements for reform after Independence
Figure 2: Number of Land Reforms, 1957-1992
\[ \Pr(\text{LandReform}_{i,t} \neq 0 | \pi_{i,t}) = f(\text{Elections} + \text{PBC Spending} + \text{Economic Conditions} + (\text{Elections} \ast \text{PBC Spending} \ast \text{Economic Conditions})) \] (12)

- Panel logit with RE (15 states, 1957–1992)
- \( \zeta = \text{Land Reform}_{i,t} \)
- Election: If state \( i \) is holding an election in year \( t - s \) where \( s \in [-2, -1, 0, 1] \)
- \( \alpha = \text{Inflation}_{t-1}, \Delta \text{GSP}_{t-1} \) per capita
- \( n \approx \text{Land GINI} \)
- \( g_t = \text{Development Expenditures} \)
- \( \gamma = \text{Past land reforms (}& \text{squared) \)
- \( \epsilon^l = \text{GSP}_{t-1} \)
- Controls: (Ideology, Eff. # Parties, Early elections)
- Data Sources: Besley & Burgess 2000, 2002, 2004; Chhibber & Nooruddin 2004
<table>
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<tr>
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<th>(2)</th>
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<th>(4)</th>
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<tbody>
<tr>
<td>Elec(_{t}+2)</td>
<td>0.275 (0.552)</td>
<td>0.394 (0.563)</td>
<td>0.260 (0.554)</td>
<td>1.980** (0.909)</td>
<td>2.934*** (1.099)</td>
</tr>
<tr>
<td>Elec(_{t}+1)</td>
<td>0.918* (0.520)</td>
<td>0.836 (0.535)</td>
<td>0.741 (0.551)</td>
<td>1.545* (0.822)</td>
<td>2.396** (1.017)</td>
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<tr>
<td>Elec(_{t})</td>
<td>-1.424 (1.109)</td>
<td>-1.470 (1.110)</td>
<td>-1.435 (1.109)</td>
<td>-1.133 (1.556)</td>
<td>-1.029 (1.683)</td>
</tr>
<tr>
<td>Elec(_{t-1})</td>
<td>-0.320 (0.549)</td>
<td>-0.331 (0.556)</td>
<td>-0.281 (0.554)</td>
<td>-0.004 (1.129)</td>
<td>1.598 (1.006)</td>
</tr>
<tr>
<td>ΔDevExp</td>
<td>0.124 (0.153)</td>
<td>0.101 (0.151)</td>
<td>0.416* (0.219)</td>
<td>1.204*** (0.454)</td>
<td></td>
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<tr>
<td>Infl(_{t-1})</td>
<td>-0.018 (0.018)</td>
<td>0.054 (0.039)</td>
<td></td>
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<tr>
<td>ΔGSP(_{t-1})</td>
<td>0.210*** (0.065)</td>
<td></td>
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<tr>
<td>Elec(_{t}+2)ΔDevExp</td>
<td>-0.764 (0.539)</td>
<td>-1.192 (0.764)</td>
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<tr>
<td>Elec(_{t}+1)ΔDevExp</td>
<td>-0.240 (0.376)</td>
<td>-0.860 (0.626)</td>
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<tr>
<td>Elec(_{t})ΔDevExp</td>
<td>0.188 (0.523)</td>
<td>-0.223 (0.756)</td>
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<td>Elec(_{t-1})ΔDevExp</td>
<td>-0.350 (0.626)</td>
<td>-0.795 (1.107)</td>
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<td>ΔDevExp*Infl(_{t-1})</td>
<td>-0.025 (0.020)</td>
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<tr>
<td>Elec(<em>{t}+2)Infl(</em>{t-1})</td>
<td>-0.131** (0.062)</td>
<td></td>
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<tr>
<td>Elec(<em>{t}+1)Infl(</em>{t-1})</td>
<td>-0.119** (0.060)</td>
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<tr>
<td>Elec(<em>{t})Infl(</em>{t-1})</td>
<td>-0.023 (0.080)</td>
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<tr>
<td>Elec(<em>{t-1})Infl(</em>{t-1})</td>
<td>0.050 (0.101)</td>
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<tr>
<td>Elec(<em>{t}+2)ΔDevExp*Infl(</em>{t-1})</td>
<td>0.056 (0.045)</td>
<td></td>
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<tr>
<td>Elec(<em>{t}+1)ΔDevExp*Infl(</em>{t-1})</td>
<td>0.064 (0.039)</td>
<td></td>
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<tr>
<td>Elec(<em>{t})ΔDevExp*Infl(</em>{t-1})</td>
<td>-0.030 (0.055)</td>
<td></td>
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<tr>
<td>Elec(<em>{t-1})ΔDevExp*Infl(</em>{t-1})</td>
<td>-0.039 (0.075)</td>
<td></td>
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<tr>
<td>ΔDevExp*ΔGSP(_{t-1})</td>
<td>-0.091*** (0.033)</td>
<td></td>
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<tr>
<td>Elec(<em>{t}+2)ΔGSP(</em>{t-1})</td>
<td>-0.394*** (0.139)</td>
<td></td>
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<tr>
<td>Elec(<em>{t-1})ΔGSP(</em>{t-1})</td>
<td>-0.205*** (0.0787)</td>
<td></td>
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<tr>
<td>Elec(<em>{t})ΔGSP(</em>{t-1})</td>
<td>0.0223 (0.171)</td>
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<tr>
<td>Elec(<em>{t-1})ΔGSP(</em>{t-1})</td>
<td>-0.222*** (0.0842)</td>
<td></td>
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<tr>
<td>Elec(<em>{t}+2)ΔDevExp*ΔGSP(</em>{t-1})</td>
<td>0.105* (0.061)</td>
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<tr>
<td>Elec(<em>{t}+1)ΔDevExp*ΔGSP(</em>{t-1})</td>
<td>0.095*** (0.036)</td>
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<tr>
<td>Elec(<em>{t})ΔDevExp*ΔGSP(</em>{t-1})</td>
<td>-0.007 (0.079)</td>
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<tr>
<td>Elec(<em>{t-1})ΔDevExp*ΔGSP(</em>{t-1})</td>
<td>0.003 (0.138)</td>
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<tr>
<td>Gini</td>
<td>0.412 (0.305)</td>
<td>0.410 (0.311)</td>
<td>0.288 (0.310)</td>
<td>0.439 (0.329)</td>
<td>0.170 (0.370)</td>
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<tr>
<td>Eff. No. of Parties</td>
<td>-0.067 (0.135)</td>
<td>-0.078 (0.137)</td>
<td>-0.046 (0.135)</td>
<td>-0.081 (0.154)</td>
<td>0.072 (0.179)</td>
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<tr>
<td>Leftist</td>
<td>0.674 (0.908)</td>
<td>0.834 (0.926)</td>
<td>0.604 (0.908)</td>
<td>0.935 (1.008)</td>
<td>0.199 (1.180)</td>
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<td>INC</td>
<td>1.027 (0.653)</td>
<td>1.115 (0.671)</td>
<td>0.845 (0.649)</td>
<td>1.188 (0.726)</td>
<td>0.653 (0.740)</td>
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<tr>
<td>GSP(_{t-1})</td>
<td>0.019*** (0.005)</td>
<td>-0.022*** (0.006)</td>
<td>-0.019*** (0.007)</td>
<td>-0.027*** (0.008)</td>
<td>-0.031*** (0.0103)</td>
</tr>
<tr>
<td>Early Election</td>
<td>1.405 (1.200)</td>
<td>1.296 (1.201)</td>
<td>1.384 (1.206)</td>
<td>1.390 (1.327)</td>
<td>1.192 (1.324)</td>
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<tr>
<td>Cum. Land Reform</td>
<td>0.450* (0.237)</td>
<td>0.478** (0.241)</td>
<td>0.423* (0.249)</td>
<td>0.671** (0.273)</td>
<td>0.756** (0.366)</td>
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<tr>
<td>(Cum. Land Reform)(^2)</td>
<td>0.011 (0.022)</td>
<td>0.009 (0.022)</td>
<td>0.011 (0.023)</td>
<td>-0.001 (0.023)</td>
<td>-0.001 (0.030)</td>
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<td>Constant</td>
<td>-3.443*** (1.057)</td>
<td>-3.343*** (1.078)</td>
<td>-3.293*** (1.078)</td>
<td>4.373*** (1.286)</td>
<td>-5.721*** (1.590)</td>
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<tr>
<th>N</th>
<th>437</th>
<th>434</th>
<th>421</th>
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<td>States</td>
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<tr>
<td>Log Lik.</td>
<td>-96.01</td>
<td>-95.10</td>
<td>-88.42</td>
<td>-89.25</td>
<td>-75.16</td>
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<tr>
<td>(\chi^2)</td>
<td>31.22***</td>
<td>31.80***</td>
<td>28.88***</td>
<td>34.32***</td>
<td>30.77</td>
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Dependent variable is land reform. Random-effects logit with standard errors in parentheses. Log-odds coefficients reported with two-tailed tests on 15 Indian States. * \(p < 0.10\), ** \(p < 0.05\), *** \(p < 0.01\).
Visualizing Results: Proposition 1

- Use models 4 (inflation) and 5 ($\Delta$ in $GSP_{t-1}$)
- Simulate $Pr$(land reform) ($\pm$) 3 std. dev. of all possible pairwise combinations of economic conditions and budget spending across each year relative to the election
- Controls set to mean or modal category
- Simulations using CLARIFY (Tomz, Wittenberg, and King 2001)
  - Draws of parameters according to asymptotic sampling distribution
K-Density for Lagged Change in GSP

Density

Year

1 Yr. After

1 Yr. Before

Pr(Land Reform)
K-Density for Lagged Inflation

Density vs. Pr(Land Reform)

Year

- 1 Yr. After
- 1 Yr. Before

Philips EITM Presentation
Use results from simulation of predicted probability

Interpretation

- Vertical axis: Economic condition (inflation or GSP)
- Horizontal axis: $\Delta$ in Development expenditures ('00 Rs. per capita)
- Colors: ↑ purple ↑ Pr(land reform)
Robustness Checks

1. Modeling as “duration data” using cubic splines, time dummies.
   - Results even stronger

2. Spatial considerations (adjacent land reform in < 5 years).

3. Examining inflation and GSP as lagged deviations from state means

4. Alternative spending measure of Education (which is encompassed in development spending), and Non-Development Expenditures.
Conclusions

- Formally showed why incumbents may strategically pass policy, especially if it can be used to win over large numbers of voters relatively inexpensively.
- Empirical evidence that political policy cycles exist.
- Some evidence that political policy cycles and PBCs are substitutes...
  - But that remains conditional on economic conditions.
  - “Extreme” conditions make policy passage more likely, no matter what the level of spending is.
Future Directions

- **Theoretical Model**
  - Lots of work needed
  - Finish modeling Propositions II, and III
  - Add ideology? Not a big deal in this example
  - Incorporate early elections (another “tool”)

- **Empirical Test**
  - Instrument with rainfall (correlated with economic conditions, arguably not land reform)
  - Instrument early elections (Khemani 2004)
  - Showing significance on figures (ringed/dashed areas showing significance)....Or:
    - Investigate parameter shifts (i.e. marginal effects) rather than predicted probabilities
  - Use Franzese’s transformation to account for the month of election
  - Other controls? Robustness checks?

- Add a smoother transition between TM and EI
Thank You
aphilips@pols.tamu.edu
<table>
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<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min.</th>
<th>Max.</th>
<th>N</th>
<th>Source</th>
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<td>Grants per capita (’00 Rs.)</td>
<td>4.53</td>
<td>7.91</td>
<td>0.10</td>
<td>80.16</td>
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<td>EOPP Indian States Data Base</td>
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<td>Δ Development Expenditures per capita (’00 Rs.)</td>
<td>2.11</td>
<td>3.09</td>
<td>-4.11</td>
<td>21.47</td>
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<td>EOPP Indian States Data Base</td>
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<td>Δ Education Expenditures per capita (’00 Rs.)</td>
<td>0.68</td>
<td>0.99</td>
<td>-1.51</td>
<td>7.03</td>
<td>430</td>
<td>EOPP Indian States Data Base</td>
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<td>Effective No. of Parties</td>
<td>2.70</td>
<td>1.46</td>
<td>1.15</td>
<td>9.14</td>
<td>437</td>
<td>C&amp;N (2004)</td>
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<tr>
<td>% Inflation</td>
<td>7.67</td>
<td>10.53</td>
<td>-24.65</td>
<td>66.68</td>
<td>434</td>
<td>EOPP Indian States Data Base</td>
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<tr>
<td>Gross State Product (Per capita ’00 Rs.)</td>
<td>139.38</td>
<td>120.42</td>
<td>21.78</td>
<td>773.42</td>
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<td>EOPP Indian States Data Base</td>
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<td>Gini</td>
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### Table 4: Robustness Checks

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<tr>
<td>Elec(_{-2})</td>
<td>0.255 (0.545)</td>
<td>0.345 (0.551)</td>
<td>0.309 (0.569)</td>
<td>0.289 (0.550)</td>
<td>0.371 (0.554)</td>
<td>0.338 (0.572)</td>
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<tr>
<td>Elec(_{-1})</td>
<td>1.103** (0.502)</td>
<td>1.052** (0.516)</td>
<td>0.965* (0.553)</td>
<td>1.238** (0.523)</td>
<td>1.189** (0.538)</td>
<td>1.054* (0.567)</td>
</tr>
<tr>
<td>Elec(_{t})</td>
<td>-1.277 (1.090)</td>
<td>-1.373 (1.091)</td>
<td>-1.279 (1.115)</td>
<td>-1.206 (1.095)</td>
<td>-1.322 (1.096)</td>
<td>-1.226 (1.119)</td>
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<tr>
<td>Elec(_{t+1})</td>
<td>-0.271 (0.537)</td>
<td>-0.291 (0.544)</td>
<td>-0.262 (0.558)</td>
<td>-0.197 (0.543)</td>
<td>-0.228 (0.549)</td>
<td>-0.209 (0.563)</td>
</tr>
<tr>
<td>GSP(_{t-1})</td>
<td>-0.009 (0.008)</td>
<td>-0.011 (0.009)</td>
<td>-0.014 (0.011)</td>
<td>-0.006 (0.008)</td>
<td>-0.009 (0.009)</td>
<td>-0.013 (0.011)</td>
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<tr>
<td>Early Election</td>
<td>1.539 (1.189)</td>
<td>1.444 (1.196)</td>
<td>1.361 (1.213)</td>
<td>1.552 (1.193)</td>
<td>1.477 (1.198)</td>
<td>1.358 (1.216)</td>
</tr>
<tr>
<td>Spline 1</td>
<td>0.164 (0.163)</td>
<td>0.175 (0.162)</td>
<td>1.007*** (0.364)</td>
<td>0.200 (0.166)</td>
<td>0.213 (0.166)</td>
<td>0.977*** (0.351)</td>
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<tr>
<td>Spline 2</td>
<td>-0.239 (0.416)</td>
<td>-0.269 (0.411)</td>
<td>-1.989*** (0.769)</td>
<td>-0.366 (0.428)</td>
<td>-0.395 (0.426)</td>
<td>-1.965*** (0.746)</td>
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<tr>
<td>Spline 3</td>
<td>0.384 (1.238)</td>
<td>0.415 (1.230)</td>
<td>4.771** (2.020)</td>
<td>0.700 (1.261)</td>
<td>0.721 (1.261)</td>
<td>4.714** (1.969)</td>
</tr>
<tr>
<td>ΔDevExp</td>
<td>0.165 (0.145)</td>
<td>0.162 (0.147)</td>
<td>0.181 (0.147)</td>
<td>0.176 (0.151)</td>
<td>0.176 (0.151)</td>
<td>0.176 (0.151)</td>
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<tr>
<td>Infl(_{-1})</td>
<td>-0.016 (0.017)</td>
<td>-0.008 (0.027)</td>
<td>-0.014 (0.018)</td>
<td>0.0050 (0.028)</td>
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<td>ΔGSP(_{t-1})</td>
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<td>Adjacent Reform</td>
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<td>0.657 (0.516)</td>
<td>0.639 (0.525)</td>
<td>0.586 (0.598)</td>
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<tr>
<td>Gini</td>
<td>0.275 (0.290)</td>
<td>0.287 (0.298)</td>
<td>0.379 (0.333)</td>
<td>0.265 (0.303)</td>
<td>0.286 (0.310)</td>
<td>0.408 (0.345)</td>
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<tr>
<td>Eff. No of Parties</td>
<td>-0.085 (0.153)</td>
<td>-0.093 (0.155)</td>
<td>-0.132 (0.163)</td>
<td>-0.082 (0.158)</td>
<td>-0.088 (0.159)</td>
<td>-0.130 (0.167)</td>
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<tr>
<td>Leftist</td>
<td>2.241*** (0.831)</td>
<td>2.346*** (0.849)</td>
<td>2.286** (0.910)</td>
<td>1.952** (0.870)</td>
<td>2.056** (0.889)</td>
<td>1.991** (0.963)</td>
</tr>
<tr>
<td>INC</td>
<td>0.733 (0.621)</td>
<td>0.800 (0.631)</td>
<td>0.859 (0.674)</td>
<td>0.627 (0.626)</td>
<td>0.696 (0.635)</td>
<td>0.761 (0.683)</td>
</tr>
<tr>
<td>Constant</td>
<td>-4.254** (1.665)</td>
<td>-4.209** (1.670)</td>
<td>-12.63*** (3.818)</td>
<td>-5.067*** (1.800)</td>
<td>-5.041*** (1.820)</td>
<td>-12.66*** (3.687)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<td>Log Lik.</td>
<td>-106.6</td>
<td>-105.4</td>
<td>-92.32</td>
<td>-105.7</td>
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<tr>
<td>χ²</td>
<td>22.11**</td>
<td>22.98*</td>
<td>22.22*</td>
<td>22.31*</td>
<td>23.06</td>
<td>22.55</td>
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Random-effect logit with standard errors in parentheses. Two-tailed tests.
* p < 0.10, ** p < 0.05, *** p < 0.01