ONLINE APPENDIX for

Political Competitiveness and the Private-Public Structure of Public Expenditure:
A model and empirics for the Indian States

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1.   Solution for levels of public expenditure by type

Party and state subscripts are dropped for convenience.

Using λ as the Lagrangian multiplier, the usual first order conditions for an internal maximum of the problem of optimizing expected political support (7) subject to the ex ante budget restraint (4) are:

q: $\{X_t\}\, \alpha^{\frac{1}{\sigma}} q_t^{-\frac{1}{\sigma}} - \lambda_t p_{qt} = 0$ (A1)

g: $\{X_t\}\, (\beta\phi)^{\frac{1}{\sigma}} g_t^{-\frac{1}{\sigma}} - \lambda_t p_{gt} = 0$ (A2)

z: $\{X_t\}\, \gamma^{\frac{1}{\sigma}} z_t^{-\frac{1}{\sigma}} - \lambda_t p_{zt} = 0$ (A3)

τ_1: $\{X_t\}\, \delta^{\frac{1}{\sigma}}(y_t - \tau_{1t} - \tau_{2t})^{-\frac{1}{\sigma}} - \lambda_t = 0$ (A4)

λ: $(\tau_{1t} + \omega_t) = p_{qt} q_t + p_{gt} g_t + p_{zt} z_t$ (A5)

where

$$X_t = \left[\left\{\alpha^{\frac{1}{\sigma}} q_t^{\frac{\sigma-1}{\sigma}} + (\beta\phi_t)^{\frac{1}{\sigma}} g_t^{\frac{\sigma-1}{\sigma}} + \gamma^{\frac{1}{\sigma}} z_t^{\frac{\sigma-1}{\sigma}} + \delta^{\frac{1}{\sigma}} c_t^{\frac{\sigma-1}{\sigma}}\right\}^{\frac{\sigma}{\sigma-1}}; V_l\right]$$

To derive (9), we divide first order condition (A2) for g into condition (A1) for q, which yields this ratio of expenditures on targetable private versus public goods in the representative party's proposed budget at time t.

The ratio of spending on nontargetable private goods to spending on public goods depends on the ratio of relative prices, as for other budget ratios. To see this, divide (A3) by (A1) to determine the proportions of $p_q q$ and $p_z z$ for each party, where for convenience we also drop the time subscript:

$$\frac{p_z z}{p_q q} = \left(\frac{\gamma}{\alpha}\right)\left(\frac{p_q}{p_g}\right)^{\sigma-1} .$$ (A6)

From (A1) and (A4)

$$\frac{(y - \tau_1 - \tau_2)}{p_q q} = -\left(\frac{\delta}{\alpha}\right) p_q^{\sigma-1}$$ (A7)

Note here that 1 is the implicit price of a unit of consumption. From the government budget constraint (4),

$$\frac{(\tau_1 + \omega)}{p_q q} = 1 + \frac{p_g g}{p_q q} + \frac{p_z z}{p_q q} ,$$ (A8)

so that

$$\frac{(\tau_1 + \omega)}{p_q q} = 1 + \left(\frac{\beta\phi}{\alpha}\right)\left(\frac{p_q}{p_g}\right)^{\sigma-1} + \left(\frac{\gamma}{\alpha}\right)\left(\frac{p_q}{p_g}\right)^{\sigma-1} = 1 + \left(\frac{\beta\phi+\gamma}{\alpha}\right)\left(\frac{p_q}{p_g}\right)^{\sigma-1},$$

or, $\qquad \dfrac{\tau_1}{p_q q} = \left(\dfrac{\beta\phi+\gamma}{\alpha}\right)\left(\dfrac{p_q}{p_g}\right)^{\sigma-1} + 1 - \dfrac{\omega}{p_q q}.$ $\qquad\qquad\qquad$ (A9)

Then from (A8) earlier,

$$\frac{(\tau_1)}{p_q q} = \left(\frac{\delta}{\alpha}\right)p_q^{\sigma-1} + \frac{(y-\tau_2)}{p_q q}.\qquad\qquad\qquad\qquad\qquad (A10)$$

Using (A9) and (A10),

$$\left(\frac{\beta\phi+\gamma-\delta}{\alpha}\right)\left(\frac{p_q}{p_g}\right)^{\sigma-1} + 1 = \frac{(y-\tau_2+\omega)}{p_q q}\ ,$$

which shows that planned expenditure on private government supplied goods $p_q q$ is

$$p_q q = \frac{(y-\tau_2+\omega)}{\left\{\left(\frac{\beta\phi+\gamma-\delta}{\alpha}\right)\left(\frac{p_q}{p_g}\right)^{\sigma-1}+1\right\}}.\qquad\qquad\qquad\qquad (A11)$$

Because y_t, τ_{2t} and ω_t are all predetermined or exogenous, expenditure on publicly provided private goods can be seen to depend inversely on its relative price (compared to publicly provided public goods) and will increase with y_t and decrease with ϕ.

Rewriting (A10) as

$$\tau_1 = \left(\frac{\delta}{\alpha}\right) p_q^{\sigma-1} p_q q + (y - \tau_2)$$

and substituting in (A11) shows that

$$\tau_1 = \left(\frac{\delta}{\alpha}\right)p_q^{\sigma-1}\left\{\frac{(y-\tau_2+\omega)}{\left\{\left(\frac{\beta\phi+\gamma-\delta}{\alpha}\right)\left(\frac{p_q}{p_g}\right)^{\sigma-1}+1\right\}}\right\} + (y - \tau_2)\ .\qquad\qquad (A12)$$

Finally, we solve for promised expenditure on publicly supplied public goods by substituting (A12) into (A1):

$$p_g g = \frac{\beta\phi(y-\tau_2+\omega)}{(\beta\phi+\gamma-\delta)+\alpha\left(\frac{p_g}{p_q}\right)^{\sigma-1}}\ .\qquad\qquad\qquad\qquad\qquad (A13)$$

2. Mnemonics, summary statistics, time series properties of the data and correlations

Table A1: Mnemonics used in tables of results, Definitions, and Sources

Mnemonics used in tables of results	Definitions	Sources
private targetable/nonprivate	Ratio of private targetable public spending to nonprivate targetable public spending	Finance Accounts and calculations of authors
private targetable/total	Ratio of private targetable public spending to total noninterest public spending	Finance Accounts and calculations of authors
private targetable/capital outlay	Ratio of private targetable public spending to capital outlay	Finance Accounts and calculations of authors
wages and salaries/ total	Ratio of proxy for wage bill of state government (nonplan spending net of pensions and debt servicing) to total noninterest public spending	Finance Accounts
wages and salaries/capital outlay	Ratio of proxy for wage bill of state government (nonplan spending net of pensions and debt servicing) to capital outlay	Finance Accounts
real income per capita *real income per cap_low*	Per capita state gross domestic product (SGDP) at 2004/05 constant prices	Central Statistical Organization (CSO), India
political competition *political competition_low*	Multiparty index of volatility-adjusted differences in vote shares to go (to overcome the leading candidate). State average of constituency level values. The index value varies between 1 (Perfect competition) and 0. See (25). Historical measure = lagged value (for previous election)	Election Commission of India and calculations of authors
seat majority	Ratio of seats occupied by the governing party or coalition to total seats in the state assembly (Vidhan Sabha)	Lalvani (2005) and calculations of authors
parties in govt *parties in govt_low*	Number of parties in the state governing coalition (= 1 if single party government)	Lalvani (2005) and calculations of authors
reserved seats	Ratio of seats reserved for Scheduled Castes and Schedule Tribes to total seats in the state assembly	Election commission of India
popsize	Ratio of state population to total population of the country	Central Statistical Organization
old	Ratio of persons 60 or more years old to total state population	Census of India
agrilabour	Ratio of agriculture labourers to total workers in a state	Census of India
grantsize	Total grants to the states from the central government relative to state total noninterest public spending	Finance Accounts
flood	dummy variable: =1 when annual average rainfall is two standard deviations above the state specific rainfall mean; = 0 otherwise	Statistical Abstract of India and calculations of authors
famine	dummy variable: = 1 when annual average rainfall is two standard deviations below the state specific rainfall mean; = 0 otherwise	Statistical Abstract of India and calculations of authors
FRBM	A dummy variable differentiating between pre- and post-fiscal rule implementation. (The Fiscal Responsibility and Budget Management Act). = 1 when the Act applies in a state; = 0 otherwise	Reserve Bank of India

Table A2: Summary statistics

Variables	Seven richer states				Seven poorer states			
	Obs.	Mean	Min.	Max.	Obs.	Mean	Min.	Max.
Private Targetable / Non-private	175	0.149	0.032	0.35	174	0.182	0.073	0.343
Private Targetable / Total	175	0.127	0.031	0.26	174	0.152	0.068	0.255
Private Targetable / Capital Outlay	175	1.29	0.302	6.55	174	1.43	0.275	20.25
Non-plan (wages and salaries) / Total	175	0.466	0.295	0.672	174	0.441	0.277	0.649
Non-plan (wages and salaries) / Capital Outlay	175	4.83	1.47	19.5	174	4.31	1.15	62.67
Real Income Per Capita	175	29677	12395	62440	175	15343	4106	42589
Political Competition	174	0.356	0.23	0.5	165	0.431	0.15	0.92
Seat Majority	175	0.622	0.5	0.844	175	0.64	0.51	0.848
Parties in Govt	175	2.14	1	8	175	2.06	1	6
Reserved Seats	175	0.179	0.1	0.248	175	0.27	0.16	0.388
Popsize	175	0.047	0.019	0.093	175	0.077	0.035	0.164
Old	175	0.082	0.061	0.013	175	0.07	0.059	0.095
Agri labour	175	0.227	0.11	0.326	175	0.295	0.075	0.533
FRBM	175	0.337	0	1	175	0.257	0	1
Grantsize	175	0.088	0.034	0.159	174	0.165	0.052	0.276
Flood	175	0	0	1	174	0.005	0	1
Famine	175	0.066	0	1	174	0.011	0	1

Notes*:* (a) For the state of Punjab, capital outlay is negative for fiscal years 1987-88 and 1996-97 due to an accounting anomaly. These two years are for this state are replaced with interpolated values. The averages are calculated after any necessary interpolation of census data and political factors; (b) (Nonplan) wages and salaries = nonplan expenditures less pensions and debt servicing = wages and salaries plus maintenance.

Table A3: Panel Unit root tests

Variables	Level		1st Difference	
	Fisher	Pesaran	Fisher	Pesaran
Private Targetable / Non-private	109.77***	-7.37***	657.42***	-15.72***
Private Targetable / Total	109.02***	-7.38***	659.59***	-15.7***
Private Targetable / Capital Outlay	67.89***	-4.9***	472.97***	-14.53***
Real Income Per Capita	1.82	-3.3***	432.67***	-14.3***
Political Competition	14.2	3.28	44.55**	-2.94***
Seat Majority	28.58	-0.37	259.46***	-11.29***
Parties in Govt	26.78	3.07	194.81***	-5.06***
Reserved Seats	5.72	8.06	156.47***	-1.23*
Old	11.71	3	51.67***	-2.74***
Popsize	35.68	5.52	136.32***	-1.84**
Agri Labour	9.22	-3.23***	47.38**	-1.66**
Grantsize	95.64***	-7.3***	570.67***	-16.35***

Note: (*), (**), and (***) indicate significance at 10%, 5%, and 1%. The null hypothesis for both tests assumes that all series are non-stationary. Among first generation unit root tests, the Fisher test is the only one compatible with an unbalanced dataset. A second-generation unit root test proposed by Pesaran (2007) allows for cross-sectional dependence among the residuals within the panels. The Stata commands for the two tests are *xtfisher* and *pescadf*.

Table A4: Sample Correlations, 1987/88 - 2011/12

	real y	polcomp	pc_adapt	v_1-v_2	vol	vol_adj_m	enp	seat_maj	parties	reserv_seats	old
real income	1.0000										
political comp	-0.1700	1.0000									
pc_adaptive	-0.2378	0.8698	1.0000								
v_1-v_2	-0.1639	-0.2085	-0.2738	1.0000							
volatility	-0.1065	-0.2839	-0.0215	0.4392	1.0000						
vol_adj(v_1-v_2)	-0.0152	0.0571	-0.2628	0.3239	-0.6189	1.0000					
enp	-0.2231	0.0667	0.4213	-0.2741	0.2770	-0.4683	1.0000				
seat majority	-0.0742	-0.1341	-0.2979	0.4816	-0.0956	0.4734	-0.3744	1.0000			
parties in govt	0.0190	-0.3062	-0.4452	-0.2309	-0.2848	0.1470	-0.2871	0.0516	1.0000		
reserved seats	-0.3433	-0.0306	-0.0374	0.1947	-0.1359	0.2632	0.0132	0.2650	-0.3050	1.0000	
old	0.6899	-0.2109	-0.2951	-0.2324	-0.0654	-0.1884	-0.3785	-0.1061	0.3551	-0.3835	1.0000
agrilabour	-0.2722	0.2723	0.2541	0.0939	0.0494	0.0335	0.1186	-0.0985	-0.1501	0.0122	-0.1514
popsize	-0.3467	0.1917	0.3352	-0.1696	-0.0423	-0.0751	0.4020	-0.2455	-0.0429	-0.0911	-0.3634
drought	0.0914	-0.0594	-0.0652	-0.0052	0.0254	-0.0464	-0.0364	0.0208	-0.0138	-0.1003	0.0417
flood	0.0057	-0.0158	-0.0080	0.0125	-0.0160	0.0110	0.0155	0.0002	-0.0038	0.1154	0.0638
FRBM	0.5723	-0.0464	-0.0501	-0.3852	-0.2651	-0.0671	0.1169	-0.1055	-0.0213	-0.0965	0.4539
grantsize	-0.4743	0.0222	0.0162	0.0268	-0.1308	0.0958	0.0799	0.1321	0.0043	0.5189	-0.2930
govtsize	-0.4663	0.1309	0.2495	-0.0761	0.0779	-0.2019	0.4485	-0.1627	-0.1679	0.2468	-0.2812

	agrilabour	popsize	drought	flood	FRBM	grantsize	govtsize
agrilabour	1.0000						
popsize	0.2798	1.0000					
drought	-0.0396	-0.0218	1.0000				
flood	0.0704	-0.0432	-0.0111	1.0000			
FRBM	0.0638	-0.0158	-0.0140	0.0923	1.0000		
grantsize	0.2379	0.1942	-0.1288	0.1087	0.0284	1.0000	
govtsize	0.3957	0.0950	-0.0686	0.0308	0.0896	0.3442	1.0000

Abbreviations and additional definitions used in table of correlations:

real y = real income per capita

polcomp = political competition: the historical multiparty index of volatility-adjusted differences in vote shares to go (to overcome the leading candidate).

pc_adapt = pc_adaptive. The adaptive version of polcomp = the average of the lagged and current values of the multi-party political competition index.

v_1-v_2 = difference in the first and second place candidates' vote shares, averaged across constituencies for each state

vol = volatility. See the text for definition

vol_adj(v_1-v_2) = average across constituencies of the volatility adjusted first versus second place vote share margin, (v_1-v_2) / volatility

enp = effective number of parties using vote shares. Constituency-level values, averaged across constituencies for each state.

seat_maj = seat majority

parties = parties in government

reserv_seats = reserved seats

govtsize = state total noninterest public spending relative to state G

Table A5: Sample correlations, state level, multi-party competitiveness index (text, equation 19)
1987/88 - 2011/12

	guj~t	har~a	kar~a	ker~a	mah~a	pun~b	tam~u	AP	bihar	MP	ori~a	raj~n	UP	wes~l
gujarat	1.0000													
haryana	-0.3658	1.0000												
karnataka	-0.3111	0.4402	1.0000											
kerala	-0.2205	0.1858	-0.3377	1.0000										
maharashta	0.6086	0.0719	-0.2313	0.3224	1.0000									
punjab	0.0269	0.4368	0.5442	-0.7212	-0.1337	1.0000								
tamil nadu	0.2645	-0.1369	0.7200	-0.5006	-0.0153	0.3691	1.0000							
AP	0.2509	0.1592	0.7293	-0.4772	0.3219	0.5406	0.7748	1.0000						
bihar	-0.7627	0.6250	0.6784	0.0698	-0.1752	0.2875	0.0810	0.3648	1.0000					
MP	-0.8553	0.4446	-0.0663	0.5936	-0.3015	-0.2794	-0.6463	-0.5245	0.5762	1.0000				
orissa	-0.3827	0.3796	0.7772	-0.3481	-0.0179	0.5239	0.4723	0.7518	0.8199	0.0686	1.0000			
rajasthan	-0.1380	0.3902	0.6055	-0.0095	-0.1019	0.3814	0.3786	0.3745	0.3586	0.0062	0.2636	1.0000		
UP	-0.6252	0.3340	-0.0801	-0.1224	-0.5029	0.2379	-0.5007	-0.4041	0.3487	0.5975	0.1601	-0.3945	1.0000	
west bengal	0.3002	0.1497	0.1166	-0.1858	-0.2671	0.2922	0.2199	-0.1263	-0.4130	-0.3276	-0.4372	0.4305	-0.1973	1.0000

Notes: AP = Andhra Pradesh; MP = Madhya Pradesh; UP = Uttar Pradesh. Richer states are listed above the middle horizontal line, poorer states below the line, in order of real per capita income in 2008/09. The ratio of real per capita income in Gujarat to that in West Bengal in 2008/09 is about 5 to 1.

3.   A primer on Indian public finance data for state governments, and the measurement of state spending on private targetable goods

In this part of the Appendix we discuss the measurement of spending on private targetable goods and other categories of state spending introduced and discussed in the main text. The data in the paper covers 14 major Indian States from fiscal years 1987/88 to 2011/12. To form our new measure of state spending on private targetable goods, we take advantage of the fact that the nature of accounting in the public sector underwent a major change in 1987/88 when details about individual line items were added to publicly released data.

Detailed information on Public Spending and Revenues are available in the budget documents. The information given in the budget documents is audited by the Comptroller and Auditor General (CAG) of India and is then presented through the *Finance Accounts* for both the Union and State Governments. Because it is audited by the CAG, *Finance Accounts* data are more reliable than the budget documents. *Finance accounts* data also contains the most detailed public finance, time-series data available in India. It is published in print form by the CAG of India beginning in fiscal year 1987/88. The National Institute of Public Finance and Policy (NIPFP), New Delhi, maintains a Data Bank which digitizes this data every year. *Finance Accounts* of all states are made available online at the CAG of India website (http://www.cag.gov.in/state-accounts), but only from fiscal year 2006/07 onwards. We have procured the detailed *Finance Accounts* dataset from the NIPFP Data Bank and have used it to construct measures of private, targetable public spending as well as total non-interest spending, capital outlays net of loans and advances, and wages and salaries.[1]

The 14 major states for which public expenditure data are compiled are: Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal.[2] These states constitute more than 85 % of the total Indian gross domestic product (GDP) and population.

3.1   A short primer on public finance data for India.

It is useful to begin with a short primer on public finance data in India. Public expenditures in India are recorded in three different ways: (1) Revenue and Capital expenditure accounts; (2) Development and Non-development expenditure accounts; and (3) Plan and Non-plan expenditure accounts. The latter system of classifying public expenditures has recently been discontinued.

In what follows we briefly describe each of these accounting systems in order to set the stage for our extensive discussion of the measurement of public expenditure on private targetable goods. Also

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[1] The NIPFP regularly updates this database. It is maintained mainly for internal use. Interested researchers can write to the NIPFP Data Bank in-charge and inquire about accessing the database. Terms and conditions for accessing this database by non-NIPFP researchers change from time to time. All of the data used in this paper will be available online after publication.

[2] From the point of view of accounting of the public finances at the state level in India, all Indian states can be divided into 'general' and 'special' category states. The 14 major Indian states included in this study constitute the group of non-special category states. Special category states are historically disadvantaged due to difficult and hilly terrain, have low population density or the presence of a large tribal population, have a strategic location along an international border, or for other reasons have non-viable finances. Small and/or Special category states are ignored in this study as they are highly reliant on the central government's assistance. Overdependence on central transfers severely constrains the fiscal autonomy of these states and affects their public finances.

explained here is how we measure state capital outlays, or capital expenditure net of loans and advances, and state expenditure on wages and salaries.

I) *Revenue (Consumption) Expenditure and Capital Expenditure*

Using the *Finance Accounts*, all public expenditures of Indian states can be divided into Revenue (current or consumption) Expenditure and Capital Expenditure. Current expenditures are incurred to meet the ongoing operational costs of running the government during a fiscal year. The single largest component of operational costs is wages and salaries for public sector employees. (However, a separate accounting of wages and salaries is not available in the budget, an issue discussed further below). A component such as Civil Administration is not a measure of wages and salaries. Other major components of current expenditure are subsidies of various kinds, departmental expenditures on goods and services of many kinds or for various purposes (detailed more explicitly below), for pensions and for debt servicing.

Capital expenditures are incurred to create assets whose benefits are realized over a period of time. Capital expenditure further can be divided into capital outlays and loans and advances by the state government. Capital outlays constitute the money that a government spends directly through various ministries to purchase or create physical assets such as roads, bridges, irrigation projects, schools, and hospitals. Loans and advances by the state government are capital payments made by the state government to quasi-government agencies such as housing and electricity boards, public sector undertakings, and other parties including individuals.

Capital outlays, that is, capital expenditure less loans and advances, is used in the paper as a measure of spending on goods that are public or nonrival in consumption relative to the measure of private targetable goods that we have assembled (in the manner detailed below) by combining selected detailed line items from the revenue expenditure accounts.

ii) *Development and Non-development Expenditure*

The Development/Non-development Expenditure classification is in intended to help governments analyze how much public money is spent on social and community services and economic services in contrast to spending on general services. Spending on social and community services and economic services are regarded as Development Expenditure, and spending on general services is defined as Non-development Expenditure. Public health, education, agriculture and allied activities, rural development, energy, industry and minerals, and transport and communication are the major spending items listed under the development expenditure heading. Major non-development expenditure spending items are debt servicing, pensions, and fiscal and administrative services such as the cost of collecting taxes and duties, district administration, police, and public works.

Often development expenditures are misinterpreted as spending on infrastructure and other capital projects. However, development expenditure has both consumption and capital components. A considerable part of development expenditure includes social and economic services, largely consisting of wages and salaries. Most state subsidies are also reported as development expenditure. Wages and salaries are also included on the non-development side, in general administrative services or civil administration. The major components of administrative services are the secretariat, district administration, police, and public works. Though a significant part of administrative service expenditure is for wages and salaries (in a proportion that is not known with precision), it is not the entire state expenditure on wages and salaries. Wages and salaries from other sectors, including public health, education, public welfare and other sectors, are not accounted for here.

iii)   Plan and Non-plan Expenditure.[3]

Plan(ned) expenditure refers to the money spent on programs or projects recommended and approved by the Planning Commission of India, which has been recently disbanded. Non-plan expenditure covers expenditures which are (or were) not part of Indian five-year plans. As long as the planned programs and projects are part of a specific five-year plan, spending on such programs and projects is included as a planned expenditure. Once the five-year plan comes to an end, all expenditures incurred on previous plan's projects are covered under the non-plan expenditure category, from next fiscal year onwards. Non-plan expenditure (net of debt servicing and pensions) is therefore increasing over time because of the wages and salaries that arise due to the growing number of post-plan programs and projects and associated periodical pay revision of public sector employees.

The major items covered under non-plan expenditure are debt servicing, pensions, maintenance of capital assets, and wages and salaries. Debt servicing and pensions are listed separately. Non-plan expenditure net of debt servicing and pensions is thus the sum of spending on maintenance of capital assets plus most public sector wages and salaries. Estimates of maintenance at the state level are not available by state. Therefore, they cannot be taken out of the state figures.

Maintenance and wages and salaries together constitute about 90 percent of non-plan spending net of pensions and debt servicing. On the reasonable assumption that maintenance is a relatively stable amount over time in relation to this total, we may use non-plan spending net of pensions and debt servicing as a proxy for state wages and salaries. It may be noted that providing government employment, which is not the same thing as wages, is a potent electoral strategy, and it would be useful to study employment in the context of this paper. However, there is no time series panel on state employment.

3.2   Using Revenue Expenditure in the Finance Accounts to measure spending on private targetable goods.

None of the three systems of public finance accounting explicitly includes the category of private, targetable goods. Therefore, we have constructed our own measure of public expenditure on private goods that are targetable over electoral periods. Since the Revenue Expenditure/Capital Expenditure classification is economically more meaningful than the other, we have used this classification system to construct our measure of private targetable goods and services using detailed line spending items reported in the Finance Accounts from 1987/88 onwards.

Expenditure on private, targetable goods and services is the public spending on goods that are substantially more rival in consumption than are public goods, $p_g g$. This spending is also substantially more targetable than the remaining, private good component of public expenditure $p_z z$. By targetable, we mean that goods or services can be retargeted to some extent from election to election, relative to the more limited targeting possible with the categories of nonprivate goods *z* or public goods *g*. In what follows, the adjectives private, targetable, public, and non-targetable should be understood in the relative sense in which the categories of public expenditure in the model are defined. Even public goods such as building a bridge or a road can be targeted (built here and not there) over some horizon. This does happen of course. But what matters is that the publicness in consumption of capital outlays substantially exceeds that of our measure of private, targetable goods. Similarly, the residual category of private non-targetable spending (including such items as pensions) is relatively less targetable than the measure of private,

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[3] The central government will discontinue the Plan/Non-plan accounting for expenditures from fiscal year 2018/19 onwards.

targetable spending that we have constructed in the manner explained below. To construct a measure of public spending on private, targetable goods – private relative to public goods like capital outlays and targetable relative to public goods and private non-targetable spending – we proceed as follows:

The following line items are selected from *Finance Accounts* and added to form the measure of private targetable public spending. These items include at most a small amount of wages and salaries, though it is not possible to know with certainty what that amount is. Some items may include a small amount of wages. These items are from the revenue expenditure account. These items can be adjusted from election to election and targeted to specific types of individuals or interest groups, relative to capital outlays, and relative to the residual category of private goods. In terms of budget line items, we construct a measure of private, targetable goods by adding the following components from the revenue expenditure account:

> ***State public spending on private targetable goods*** *= (1) Government loans written off + (2) Spending on textbooks, scholarship, and examination for primary, secondary and tertiary education + (3) Public health schemes for benefit to individuals + (4) Rural family welfare services, urban family welfare services, maternity and child health, and family welfare compensation + (5) Urban water supply programs, and rural water supply programs + (6) Housing + (7) Welfare of SC/ST/OBC groups + (8) Social security and welfare + (9) Food and nutrition + (10) Relief on account of natural calamities + (11) Food grain crops, seeds, commercial crops, and fertilizer; animal husbandry; fisheries; and schemes for debt relief to farmers + (12) Integrated rural development programs, self-employment programs, employment services, drought prone area programs, and rural employment + (13) Power subsidies + (14) Civil supplies*

Below, we explain how these 14 spending items can be targeted to specific groups of voters via changes in effective administration at the state and local levels and timed electorally. Where it is useful, examples of recently introduced state-specific government sponsored schemes are used to make the discussion specific. Also provided are specific budget codes that can be used to identify the items included in the Finance Accounts from 1987/88 onwards:

Each of the 14 expenditure categories is constructed from both major and minor line items in the *Finance Accounts*. Budget codes of line items are presented below under each of the categories of expenditures. All expenditure items are reported under three budget heads of revenue expenditure account: General services, Social services, and Economic services. Each of these three budget heads are further divided into 4-digit Major heads, e.g., 2202 for *General education*, 2210 for *Medical and public health*, and so on. The Major heads further are divided into 2-digit Major sub-heads and the Major sub-heads are further divided into 3-digit Minor heads. For some of the 4-digit Major heads, there are no 2-digit Major sub-heads. For these, the expenditure classification goes from 4-digit Major heads to 3-digit Minor heads. Some of the Major heads appear under two categories of expenditures. For example, spending on Minor head *Irrecoverable loan written off* appears under Major head (2235 – Social security & welfare) of expenditure category *Government loans written off,* and the entire spending on Major head (2235 – Social security & welfare) is again accounted under expenditure *Social security and welfare*. In such cases, the spending is accounted for where the Minor head is mentioned and the same amount is deduced from the Major head accounted for under the other expenditure category. This is done to avoid the double counting of expenditure items. Under some of the 4-digit Major heads, grants transferred to local governments by the state government are reported as 3-digit Minor heads. Since these transfers are spent by the local governments, they are not part of any of our 14 expenditure categories.

(1) *Government loans written off*: State governments provide loans to individuals for various purposes. However, the recovery of such loans is uncertain and often subject to political manipulation. A significant share of individual loans is given to the farmers and such loans are written off from time to time. Writing off farm loans is often used as a part of electoral strategy by most of the parties and such loans are usually written off around the election years. For instance, the pre-electoral announcement of Writing off farm loans by the Bharatiya Janta Party (BJP) if it comes back power was one of the major reasons behind BJP's unprecedented electoral victory in the state of Uttar Pradesh, the largest state of India, in 2017. As it had promised, farm loans worth 360000 million rupees was written off within few months of coming back to power. Subsequently, it had a snowball effect on other states. Punjab and Maharashtra, two other predominately agricultural states, have announced large-scale farm loan waivers following Uttar Pradesh's example. More states are expected to follow the suit as they go to elections.

> Budget Codes of *Government loans written off*: [Budget head (A – General services) —> Major head (2029 – Land revenue) —> Minor head (792 – Irrecoverable loan written off); Budget head (A – General services) —> Major head (2075 – Miscellaneous general services) —> Minor head (795 – Irrecoverable loan written off); Budget head (B – Social services) —> Major head (2202 – General education) —> Major sub-head (80 – General) —> Minor head (792 – Irrecoverable loan written off); Budget head (B – Social services) —> Major head (2217 – Urban development) —> Major sub-head (80 – General) —> Minor head (795 – Irrecoverable loan written off); Budget head (B – Social services) —> Major head (2230 – Labour and employment) —> Major sub-head (01 – Labour) —> Minor head (792 – Irrecoverable loan written off); Budget head (B – Social services) —> Major head (2235 – Social security & welfare) —> Major sub-head (01 – Rehabilitation) —> Minor head (792 – Irrecoverable loan written off); Budget head (C – Economic services) —> Major head (2401 – Crop husbandry) —> Minor heads (792 – Irrecoverable loan written off, 795 – Irrecoverable loan written off); Budget head (C – Economic services) —> Major head (2404 – Dairy development) —> Minor head (792 – Irrecoverable loan written off)]

(2) *Spending on textbooks, scholarship, and examination for primary, secondary and tertiary education*: Though education spending is by and large non-targetable, beneficiaries of spending on textbooks, scholarship, and examinations can be identified. Distribution of textbooks and offering scholarships to students may be considered private targetable spending because the effective rules vary with elections. Distributing textbooks on a large scale and increasing the numbers and amounts of fellowships in the years leading to elections are the commonly seen practices in most of the states. Other than distributing textbooks and awarding scholarships, in recent years, states have introduced various one-time beneficiary schemes targeting students. In 2006, the Bihar state government provided rupees 2000 (later raised to rupees 2500) to every secondary school female student to purchase a bicycle. The objective behind introducing this scheme was to encourage female students to attend secondary schooling. Before 2015 state election, boys attending secondary school were also made eligible to get money for purchasing a bicycle and, in addition to a bicycle, all eligible students were given 1000 rupees to buy school uniforms. Subsequently, many other states also have introduced the bicycle scheme in their respective states. Similarly, the Uttar Pradesh state government distributed free laptops and computer tablets to the students who passed the high school and intermediate examinations to encourage them for higher studies. A total of 1.5 million laptops were distributed by the state government between 2012 and 2015.

Budget Codes of *Spending on textbooks, scholarship, and examination for primary, secondary and tertiary education*: [Budget head (B – Social services) —> Major head (2202 – General education) —> Major sub-head (01 – Elementary education) —> Minor heads (108 – Text books, 109 – Scholarship, 110 – Examination); Budget head (B – Social services) —> Major head (2202 – General education) —> Major sub-head (02 – Secondary education) —> Minor heads (106 – Text books, 107 – Scholarship, 108 – Examination); Budget head (B – Social services) —> Major head (2202 – General education) —> Major sub-head (03 – University and higher education) —> Minor heads (106 – Text books, 107 – Scholarship); Budget head (B – Social services) —> Major head (2202 – General education) —> Major sub-head (80 – General) —> Minor heads (107 – Scholarship, 108 – Examination)]

(3) *Public health schemes benefit to individuals*: Various healthcare schemes are in operation at the state level. Since these schemes are state-specific in nature, the number of such schemes and their beneficiaries vary from state to state. Most of these schemes are usually introduced around election years. Beneficiaries of such schemes are often identified and monitored at the local level. Among the recently implemented schemes, Andhra Pradesh state government introduced Aarogya Raksha (Health for All) on the 1st January of 2017. Under this scheme, the lower income groups become eligible to get free healthcare service from the state government. Recently the Karnataka state cabinet approved a scheme called Aarogya Bhagya (free healthcare) for low income population. At present, the Karnataka state runs seven different health schemes, and all are expected to be merged under Aarogya Bhagya. This scheme was approved a few months before a scheduled assembly election.

Budget Codes of *Public health schemes benefit to individuals*: [Budget head (B – Social services) —> Major head (2210 – Medical and public health) —> Major sub-head (01 – Urban health services-allopathy) —> Minor heads (103 – Central Government Health Scheme, 109 – School health schemes); Budget head (B – Social services) —> Major head (2210 – Medical and public health) —> Major sub-head (02 – Urban health-Other system of medicine) —> Minor head (200 – Other health schemes); Budget head (B – Social services) —> Major head (2210 – Medical and public health) —> Major sub-head (06 – Public health) —> Minor head (010 – Minimum need programme)]

(4) *Rural family welfare services, urban family welfare services, maternity and child health, and family welfare compensation*: Like the public health schemes, Indian states implement various schemes related to family welfare. Like most other schemes, these schemes are also populist in nature. Beneficiaries under these are identifiable and can be monitored at the local level. In recent times, Tamil Nadu has been the leading state in introducing some of the popular family welfare schemes in India. A scheme named Thalikku thangam thittam 'Gold for marriage' was introduced in 2011 when the AIADMK party came to power. The scheme gives four grams of gold and cash up to rupees 50000 to economically backward women who have completed their degree or diploma. Under another scheme named 'Amma baby care kits', every mother who gave birth to her child at a government hospital gets 16 types of baby-products worth rupees 1000 for free.

Budget Codes of *Rural family welfare services, urban family welfare services, maternity and child health, and family welfare compensation*: [Budget head (B – Social services) —> Major head (2211 – Family welfare) —> Minor heads (101 – Rural Family Welfare Services, 102 – Urban Family Welfare Services, 103 – Maternity and Child Health, 105 – Compensation, 109 – Child health programmes)]

(5) *Urban water supply programs, and rural water supply programs*: State governments play a major role in supplying adequate water for drinking and other household purposes in both rural and urban areas in India. These services are provided through local administrations. Some localities have uninterrupted water supply and others suffer from water scarcity is a commonly seen situation in India. Political discretion is a reason for this. Hours of water supply can be adjusted from election to election. This is serving as a quasi-public good because it is provided here and not there. Specific states use various schemes to supply drinking water in urban areas. For instance, under Amma Kudineer Thittam scheme, the Tamil Nadu government supplies free drinking water through vending machines in the city of Chennai.

Budget Codes of *Urban water supply programs, and rural water supply programs*: [Budget head (B – Social services) —> Major head (2215 – Water supply and sanitation) —> Minor heads (101 – Urban water supply programs, 102 – Rural water supply programs)]

(6) *Housing*: Many of the popular housing schemes in India are implemented by the central government. Over the years, state governments too have played a major role in providing housing to families, usually to the poorer ones. Financing housing at the state level is usually accompanied by subsidies to households. Housing subsidies are carefully monitored, and the beneficiaries are easily identifiable.

Budget Codes of *Housing*: [Budget head (B – Social services) —> Major head (2216 – Housing)]

(7) *Welfare of SC/ST/OBC*: The Schedules Castes (SC), Scheduled Tribes (ST), and Other Backward Classes (OBC) are underprivileged groups in India. All states spend a considerable amount of money for the welfare of SC/ST/OBC under various affirmative action programs. Different states implement different programs and the primary objectives of these programs are to provide better education, health, housing and employment to SC/ST/OBC. Tribal areas are usually underdeveloped and isolated. In the states where a sizeable population live in tribal areas, governments spend money specifically for tribal area development. Expenditures incurred under this head are mostly area specific and individual specific, and subject to political discretion.

Budget Codes of *Welfare of SC/ST/OBC*: [Budget head (B – Social services) —> Major head (2215 – Water supply and sanitation) —> Minor head (789 – Special component plan for scheduled caste, 796 – Tribal areas sub plan); Budget head (B – Social services) —> Major head (2216 – Housing) —> Major sub-heads (02 – Urban housing, 03 – Rural housing, 80 – General) —> Minor heads (789 – Special component plan for scheduled caste, 796 – Tribal areas sub plan); Budget head (B – Social services) —> Major head (2217 – Urban development) —> Major sub-head (01 – State Capital Development, 03 – Integrated Development of Small and Medium Towns, 04 – Slum area Improvement, 05 – Other Urban Development Schemes, 80 – General) —> Minor head (789 – Special component plan for scheduled caste, 796 – Tribal areas sub plan); Budget head (B – Social services) —> Major head (2225 – Welfare of SC/ST/OBC); Budget head (C – Economic services) —> Major heads (2401 – Crop husbandry, 2402 – Soil & water conservation, 2403 – Animal husbandry, 2404 – Dairy development) —> Minor heads (789 – Special component plan for scheduled caste, 796 – Tribal areas sub plan); Budget head (C – Economic services) —> Major head (2406 – Forestry and wild life) —> Major sub-heads (01 – Forestry, 02 – Environmental Forestry and Wild Life)

—> Minor heads (789 – Special component plan for scheduled caste, 796 – Tribal areas sub plan)]

(8) *Social security and welfare*: This item comprises some of the most popular publicly funded schemes which provide security and welfare to the vulnerable and unprotected sections of the society. Some of the major welfare schemes such as child welfare, woman's welfare, old age pension, and insurance provided by the government for agriculture and labourers working in informal sectors of the economy are covered under it. Beneficiaries of these schemes receive mostly cash payment on a regular basis, and they are targetable. The criteria are altered from time to time, new schemes are announced, and old ones are eliminated. Governments can use these schemes as instruments to consolidate their support base.

Budget Codes of *Social security and welfare*: [Budget head (B – Social services) —> Major head (2230 – Labour and employment) —> Major sub-head (01 – Labour) —> Minor head (112 – Rehabilitation of Bonded Labour); Budget head (B – Social services) —> Major head (2230 – Labour and employment) —> Major sub-head (02 – Employment Service) —> Minor heads (101 – Employment Services, 102 – Assistance to the Urban Poor); Budget head (B – Social services) —> Major head (2235 – Social security & welfare)]

(9) *Food and nutrition*: Included here are government programs for nutritional benefits to the targeted groups such as children, pregnant women, and lactating mothers. All state governments finance special nutrition programs to provide require amount of nutrition to pregnant women, and lactating mothers. The other popular scheme accounted under this item is mid-day meals scheme. The scheme provides free lunches to primary and upper primary school going children on all working days. This scheme intends to provide required nutrition to school going children and reduce school dropout rates. Recently the Tamil Nadu government implemented *Amma Unavagam*, a populist scheme where the city corporation-run canteens offer subsidised food at very low prices. It had an immediate snowball effect on other states. The beneficiaries of these popular schemes are individuals.

Budget Codes of *Food and nutrition*: [Budget head (B – Social services) —> Major head (2202 – General education) —> Major sub-head (01 – Elementary education) —> Minor heads (112 – National Programme of Nutritional to Primary Education); Budget head (B – Social services) —> Major head (2236 – Nutrition); Budget head (C – Economic services) —> Major head (2408 – Food, storage and warehousing) —> Major sub-head (01 – Food)]

(10) *Relief on account of natural calamities*: From time to time, all Indian states are affected by various natural calamities such as drought, flood, cyclone, famine etc. All states governments have different calamity relief funds and the funds are used to compensate for the losses incurred to people on account of the calamities. The beneficiaries of relief are easily identifiable. The decisions about the amount and timing of compensation and the number of beneficiaries are political issues.

Budget Codes of *Relief on account of natural calamities*: [Budget head (B – Social services) —> Major head (2245 – Relief on account of natural calamities)]

(11) *Food grain crops, seeds, commercial crops, and fertilizer; animal husbandry; fisheries; and schemes for debt relief to farmers*: These activities are part of primary sector. People employed in these activities are members of strong interest groups, and budget cuts in these items could prove politically very costly. Since most of these expenditures are paid to individuals either in form of

subsidies or direct payments from government, it is necessary for the governments to mark the beneficiaries. Majority of the beneficiaries live in rural areas and their support is often essential to win elections. During election years, incumbent parties introduce various populist schemes to reach out to these groups and thereby hope to enjoy their support. Among the recent practices, the Tamil Nadu government introduced *Amma Seeds* scheme before 2016 assembly election. Under this scheme, the Tamil Nadu State Seeds Development Agency distributes seeds to the farmers for free. The agency also provides subsidised kits in the urban areas to cultivate vegetable farming in smaller land and to provide rooftops.

> Budget Codes of *Food grain crops, seeds, commercial crops, and fertilizer; animal husbandry; fisheries; and schemes for debt relief to farmers*: [Budget head (C – Economic services) —> Major head (2401 – Crop husbandry) —> Minor heads (102 – Food Grain Crops, 103 – seeds, 105 – Manures and Fertilizers, 106 – High yielding verity programme), 107 – Plant Protection, 108 – Commercial Crops, 110 – Crop Insurance, 114 – Development of Oil Seeds, 119 – Horticulture and Vegetable Crops); Budget head (C – Economic services) —> Major heads (2403 – Animal husbandry, 2404 – Dairy development, 2405 – Fisheries); Budget head (C – Economic services) —> Major head (2435 – Other agricultural programs) —> Minor head (101 – Schemes for debt relief to farmers)]

(12) *Integrated rural development programs, self-employment programs, employment services, drought prone area programs, and rural employment*: These are some of the major publicly funded programs run by the states in the rural areas and these expenditures constitute a significant chunk of total spending under the major head of *rural development*. A majority of rural Indians are directly dependent on these programmes for their livelihood. Beneficiaries of these programs are targetable, with administration varying across states and elections to effectively alter who receives benefits. Parties implementing these schemes claim credit for running them. Recent studies have shown how political affiliation helps households in getting benefits from some of these programs when their favored party is in power. Panda (2015) has found evidence for this in Poverty Alleviation Program, and Das (2015) in Rural Employment Guarantee Program.

> Budget Codes of *Integrated rural development programs, self-employment programs, employment services, drought prone area programs, and rural employment*: [Budget head (C – Economic services) —> Major heads (2501 – Special programs for rural development, 2505 – Rural employment, 2506 – Land reforms); Budget head (C – Economic services) —> Major heads (2515 – Other rural development programs) —> Minor head (102 – Community development)]

(13) *Power subsidies*: In recent years, elections in India are contested by promises to provide *bijli-sadak-paani* (power-road-water), the basic needs for a decent quality of rural life. In India, power supplied for agricultural and household consumption is highly subsidised and power theft is rampant in most parts of India. Providing free electricity to farmers is one of the most commonly observed pre-electoral practices followed by political parties in India. This causes huge losses to the state governments. Since power supply is a politically sensitive issue in most of the states, governments have found it difficult to undertake reforms in this sector. A sizeable amount of public expenditure is devoted to paying these subsidies to agricultural and households. Hours of power supply can be adjusted from election to election. Manipulating power supply around election years in India is documented by Golden and Min (2014) and Baskaran et al. (2015).

Budget Codes of *Power subsidy*: [Budget head (C – Economic services) —> Major heads (2801 – Power)]

(14) *Civil supplies*: This spending item consists mostly the cost of supplying basic goods and services to lower income sections of a state. A major part of this item consists of food subsidies. Most of the states supply food items such as rice and wheat at heavily subsidized prices through public distribution system (PDS). The majority of the population in India depends on these subsidized food items and all governments handle this item carefully. Mismanaging it could prove politically fatal. Governments often increase the supply of subsidised food items, and sometimes even subsidise the price further as the election approaches.

Budget Codes of *Civil supplies*: [Budget head (C – Economic services) —> Major heads (3456 – Civil supplies)]

Table 2 in the text presents a snapshot of the distribution of each of the 14 spending items within total public expenditures on targetable private goods for seven rich and seven poor states based on the income in 2008. The numbers are expressed in percentage and the figures are provided for fiscal year 2008-09.

4. Further robustness analysis

4.1 *Using wages and salaries as a measure of targetable private expenditure*

Using an alternative measure of spending on targetable private goods in the estimation is a good way to check the robustness of the estimates provided in Table 3a. Accordingly, the estimates reported in Table A6 are based on the same model as used for Table 3a except that here state government wages and salaries replace our new measure of expenditure on private targetable goods. (We note that results using the non-private category of spending is omitted in this table). Wages and salaries are a substantially different measure of targetable private goods. Government employment and wages, which are combined in the wage bill, are important sources of private benefits delivered by governments everywhere.[4] Wages and salaries are estimated using the old, and now discontinued, Plan versus Nonplan accounts as explained in detail the Online Appendix. It should be noted that there is no item in the Finance Accounts for the state government wage bill, and some items in the accounts, such as 'Civil Administration', which appear to record wages and salaries in fact include other items in hard to estimate amounts.

[Table A6 here]

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[4] We would like to distinguish between employment and wages that are electorally sensitive from those that must be provided by any government regardless of which party is in power. But such panel data does not exist.

Table A6: Public Spending on Wages and Salaries in the Public Budgets of 14 Major Indian States
1987/88 to 2011/12
Pooled Mean Group Estimation

Dependent variable	Wages and salaries/Total	Wages and salaries / Capital Outlay
Sample (High+Low)	**(7+7)**	**(7+7)**
real income per capita	-0.263 (3.83)***	-1.03 (3.16)***
real income per cap_low	-0.099 (1.27)	1.06 (2.8)***
political competition	-0.363 (4.85)***	-1.06 (2.59)***
political comp_low	0.476 (4.86)***	0.093 (0.18)
seat majority	0.413 (6.15)***	1.39 (3.38)***
seat majority_low	-0.704 (6.44)***	-0.191 (0.32)
parties in govt	-0.023 (0.69)	0.039 (0.22)
parties in govt_low	0.011 (0.2)	-0.072 (0.34)
reserved seats	0.021 (0.15)	2.62 (2.46)**
old	0.394 (1.31)	1.98 (1.41)
agri labour	-0.277 (2.82)***	-2.21 (3.82)***
popsize	2.33 (4.88)***	12.93 (4.91)***
FRBM	-0.048 (2.31)**	-0.123 (1.24)
grantsize	-0.061 (2.71)***	-0.263 (2.32)**
ec coefficient	-0.673 (6.87)***	-0.603 (5.63)***
95% C.I. for ec coeff.	-0.865 -0.481	-0.813 -0.393
Log likelihood	476.95	28.29
Observations (States)	320	320
Sample (High+Low)	**(5+5)**	**(5+5)**
real income per capita	-0.168 (2.21)**	-1.09 (3.03)***
real income per cap_low	-0.281 (2.6)***	0.925 (1.61)?
political competition	-0.342 (4.36)***	-0.855 (1.96)**
political comp_low	0.386 (3.33)***	-0.192 (0.35)
seat majority	0.292 (3.45)***	1.42 (3.05)***
seat majority_low	-0.647 (4.69)***	-0.245 (0.38)
parties in govt	-0.024 (0.73)	0.026 (0.14)
parties in govt_low	-0.001 (0.01)	-0.002 (0.01)
reserved seats	-0.139 (0.9)	2.73 (2.31)**
old	-0.044 (0.13)	2.16 (1.28)
agri labour	-0.097 (0.81)	-2.01 (3.21)***
popsize	1.9 (3.92)***	12.92 (4.8)***
FRBM	-0.063 (2.65)***	-0.113 (1.05)
grantsize	-0.032 (1.36)	-0.166 (1.37)
ec coefficient	-0.745 (6.26)***	-0.621 (5.41)***
95% C.I. for ec coeff.	-0.979 -0.512	-0.846 -0.396
Log likelihood	335.71	25.1
Observations (States)	227	227

Notes to Table A6: See notes to Table 3a. The short run specification is the same as in Table 3a.

Despite the difference in definition of the numerator in our budget ratios, the estimates in the table of the long run effect of income and competitiveness for the richer states are qualitatively the same as those in Table 3a. Income and competitiveness both reduce privateness in the richer states. The effect on lower income states in both cases is also generally more muted (less negative), except that in this table, when considering privateness relative to total non-interest spending, the effect of income on the lower income states is also negative (in accord with Proposition 1). We note also that as in Table 3a, results for privateness measured relative to capital outlay is different: competitiveness has a negative effect on privateness defined relative to capital outlay for both higher and lower income states.

4.2 With panel corrected standard errors.

Finally, in Table A7 we provide key results using OLS with panel corrected standard errors. Again, the pattern is of signs is the same as in Table 3a though, as in Table 5, negative coefficients on income for the first two budget ratios are not significant.

Table A7: Public Spending on Private, Targetable Goods in the Public Budgets of 14 Major Indian states
1987/88 to 2011/12
Linear regression with panel-corrected standard errors

Dependent variable	Private Targetable/Nonprivate	Private Targetable/Total	Private Targetable/Capital Outlay
Sample (High+Low)	(7+7)	(7+7)	(7+7)
real income per capita	-0.062 (0.83)	-0.042 (0.63)	-0.331 (3.32)***
real income per cap_low	0.109 (4.97)***	0.096 (4.92)***	0.115 (3.09)***
political competition	-0.812 (5.06)***	-0.72 (5.04)***	-0.919 (3.77)***
political comp_low	1.06 (6.56)***	0.914 (6.42)***	1.36 (5.53)***
R-square	0.54	0.54	0.40
Wald stat.	560.58***	547.53***	416.16***
Observations (States)	334	334	334

Notes: Only key coefficients are reported. The specification is the same as the long run in the model of Table 3a. Using xtpcse in Stata 15 with standard assumptions about the error, which is assumed to be both heteroscedastic and contemporaneously correlated across states.

5. Appendix references

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