Constituency Development Funds in India
Do They Invite a Political Business Cycle?

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India's Member of Parliament Local Area Development Scheme, in which each MP is allotted an annual discretionary fund to spend in his or her district, offers an incentive to MPs to engage in individual political business cycles, or increased spending just before the elections, to improve their chances of re-election. Have they taken advantage of this opportunity? If they have, has doing so enhanced the likelihood of their re-election? This paper addresses these questions in the context of the 2014 Lok Sabha election.

In the decades since William Nordhaus's (1975) pioneering exploration of "political business cycles"—increased spending by governments just before elections in the hope of staying in power—there has been much academic fascination with this theme.[1] Thus far, that interest has focused almost exclusively on the macro level, asking whether ruling parties spend more in pre-election periods, but India offers a remarkable opportunity to look at such cycles at the individual level: its constituency development fund system, called the Member of Parliament Local Area Development Scheme (MPLADS). Allotted annually to every Member of Parliament (MP), this discretionary fund for public works can be spent or saved each year, allowing an individual MP to splurge on visible investments just before the next election. Have India's MPs taken advantage of this opportunity, and if so, has it enhanced the likelihood of their re-election? The present paper addresses these questions in analysing the Indian general elections of 2014.

The paper begins with a brief account of the MPLADS system, and then moves to an overview of the 2014 election. The third section sets up the study, and the fourth one presents an analysis of how MPs spent their MPLADS entitlement and how those who contested the 2014 election fared at the polls. A final section concludes the paper.

The Constituency Development Scheme

India's constituency development funds trace their origins to the 1970s, when each elected member of the Bombay Municipal Corporation was allotted ₹50,000 annually as a discretionary fund to spend on municipal works within his or her ward, the corporation then constructing the works thus designated. During the 1980s, Maharashtra state picked up the programme from its capital in Bombay, allotting ₹1 million to each member of the legislative assembly (MLA). Other states began to follow suit, and in the early 1990s, the Lok Sabha, the lower house of Parliament, created its own programme, with a ₹5 million fund for each MP.[2] Subsequent increases had raised the annual entitlement to ₹20 million or ₹2 crore by the time MPs took their seats in 2009 in the 15th Lok Sabha, a sum that was enlarged to ₹5 crore in 2011.[3]

A *Guidelines* publication provides a detailed set of regulations for MPLADS in its 77 pages,[4] but the programme's critical features can be described quite briefly:
(i) Funds must be used to create "durable assets," that is, physical infrastructure for education, health, transportation, sanitation, electrification, and the like. Private, religious or commercial structures are prohibited, as are programme activities such as literacy drives or inoculation initiatives.

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(ii) A specified portion of each MP's fund must benefit Scheduled Caste (Dalit) and Scheduled Tribe (Adivasi or indigenous) populations.

(iii) After an MP recommends a project, a government officer (called a "district authority") vets it for feasibility and appoints an implementer, which can be a local government body or a "reputed" non-government organisation (NGO); commercial contractors are prohibited.

(iv) The district authority must inspect at least 10% of all works under implementation every year.

(v) MPLADS funds are "non-lapsable," meaning that unused amounts can carry forward to the following year(s), so that the MP can spend them later on.

(vi) Under the national Right to Information (RTI) Act of 2005, any citizen has the right to obtain information on any aspect of MPLADS and the work under it.

(vii) A stone or metal plaque identifying the sponsoring MP is to be "permanently erected" for each completed project.

For the purposes of this analysis, the non-lapsability provision is the most important feature of MPLADS. Over the five years of the 2009–14 term, an MP could have amassed as much as ₹19 crore (₹2 crore during each of the first two years and then ₹5 crore in each of the final three years) to spend on visible infrastructure shortly before the 2014 election.[5]

Arguments have been made that in their efforts to get re-elected, incumbent governments in India tend to pivot from investment to consumption strategies (providing public goods and services) to demonstrate their "competence" to voters while holding state budgets steady (Sen and Vaidya 1996; Saez 2016), presumably thinking that they would not notice that investment had decreased until after the election. However, from the individual MP's perspective, it may well make more sense to demonstrate "competence" by providing visible investments directly attributable to him or her, rather than trying to increase public service delivery that voters would likely attribute to government in general, not to their own representative in the legislature. This prospect should be especially tempting for an MP, given that MPLADS monies are available, non-lapsable, and must be spent on infrastructure in any case.

Several studies of MPLADS have appeared, comprising both official and non-governmental research. On the official side, the analyses have focused mainly on underperformance in implementation (for example, GOI 2001a, 2001b, 2011), as have a number of non-governmental studies (Mohanty 2004; Sezhiyan 2005; Prabhakar et al 2012; Surya Prakash 2013). A couple of more scholarly explorations have instead examined how MPs have allocated their funds (Keefer and Khemani 2009; Pal and Das 2010). In addition, there has been some questioning of the constitutional validity of MPLADS (Aiyar 2010; Sivaramakrishnan 2010). None thus far have looked into possible linkages between MPLADS spending and election outcomes.

The 2014 Election

In the Lok Sabha election of 2004, the Indian National Congress (INC), the party of Mahatma Gandhi and Jawaharlal Nehru, displaced the then-ruling Bharatiya Janata Party (BJP), the Hindu-oriented nationalist party that has been the main rival of the Congress for the last couple of decades. Apart from these two national-level parties, a large number of regional (usually state-level) parties have elected MPs, often forcing the national parties to assemble coalitions in order to form a government, but the INC and BJP have clearly been the major actors. The analysis here will focus largely on them.

As a parliamentary system with a five-year maximum space between elections, India went to the polls again in 2009, giving the Congress a new mandate for the 15th Lok Sabha, which sat between 2009 and 2014. While both parties fielded candidates in the great majority of constituencies (440 out of the 543 for the INC and 433 for the BJP), the Congress won almost half its contests with 206 victories, but the BJP won only about one-fourth of its races, earning 116 seats, as shown in Table 1.[6]

In 2014, the tables turned dramatically. The Congress managed to secure less than a 10th of the seats it contested (44 out of 464, as shown in the rightmost column of Table 1), while the BJP won almost two-thirds of the constituencies it had entered. For the present analysis, however, only the seats contested by incumbents are germane to political business cycles. For the Congress, 152 MPs among the 206 elected in 2009 ran for re-election in 2014, while for the BJP, 85 of the 116 winners from the earlier election ran again in 2014—about three-quarters of the sitting MPs in each case.[7] Their success rates were markedly different, however. More than 80% of BJP incumbents won their seats again, while more than 80% of INC incumbents lost their races. Incumbents from other parties[8] also fared badly, though as a group they did better than the Congress, with 57 of 148 (or 38.5%) winning their seats. As in 2009, only a small fraction of

Table 1: Incumbency and Electoral Success for Bharatiya Janata Party and Indian National Congress Contestants, 2009 and 2014 (percentages total down)

		2009 Total Contestants	2014 Incumbent Contestants	2014 Non-incumbent Contestants	2014 Total Contestants
INC	Won	206 (46.8)	30 (19.7)	14 (4.5)	44 (9.5)
	Lost	234 (53.2)	121 (80.3)	296 (95.5)	417 (90.5)
	Party total	440 (100.0)	151 (100.0)	310 (100.0)	461 (100.0)
BJP	Won	116 (26.8)	72 (86.7)	209 (60.9)	281 (66.0)
	Lost	317 (73.2)	11 (13.3)	133 (39.1)	144 (34.0)
	Party total	433 (100.0)	83 (100.0)	342 (100.0)	425 (100.0)
Other parties and independents	Won	221 (3.1)	57 (38.5)	160 (2.2)	217 (2.9)
	Lost	6,976 (96.9)	91 (61.5)	7,054 (97.8)	7,145 (97.1)
	Other total	7,197 (100.0)	148 (100.0)	7,214 (100.0)	7,362 (100.0)
Grand total	Won	543 (6.7)	159 (41.6)	383 (4.9)	542 (6.7)
	Lost	7,527 (93.3)	223 (58.4)	7,453 (95.1)	7,676 (93.4)
	Total	8,070 (100.0)	382 (100.0)	7,836 (100.0)	8,218 (100.0)

Three constituencies dropped from this table because their very small size caused statistical problems. See endnote 9.
Figures in brackets are percentages.

candidates overall, whether contesting from other parties or as independents, won their races (2.9% against 3.1% five years earlier, as shown in Table 1). Altogether, 382[9] incumbents contested again in 2014, of whom 159 or 41.6% won re-election.

Clearly, the "Modi wave" (generated by the charismatic head of the BJP, Narendra Modi) that swept the country in 2014, along with a widespread disaffection with the Congress after its two terms in office combined with a lacklustre campaign on its part, dwarfed other factors in determining the overall election outcome.[10] The central question for this analysis, then, is whether MPLADS spending had any additional effect in helping or hindering incumbents from retaking their seats. Table 1 shows that incumbents in both parties polled better than non-incumbents: for the BJP, 86% of the incumbents won as against 61% of the non-incumbents, and even for the unfortunate Congress the corresponding figures were almost 20% versus less than 5%. Could MPLADS spending have contributed to this difference? In the analysis that follows, the main focus will be on these two major parties, but some attention will be given to incumbents from the minor parties and independents as well, collectively grouped as "Other."

Study Design

The Election Commission of India (ECI) publishes detailed results for all Lok Sabha elections, which provide data on each candidate's party, gender, age and votes. For each constituency, the commission's publication notes the number of registered voters and the type of seat, whether reserved (for Scheduled Castes or Scheduled Tribes), or a "general seat" (in which anyone can run) (ECI 2009, 2014).

MPLADS, administered by the Ministry of Statistics and Programme Implementation (MOSPI) in New Delhi, issues an annual report on the programme's operation, providing the MPLADS funds spent and number of works completed for each Lok Sabha member, making it possible to gauge how each MP deployed his or her allotments over the five-year term of each Parliament.

The election of 2014 offers an ideal opportunity to test the political business cycle and its impact on electoral success. Earlier scholarly work explored other aspects of the linkage between MPLADS and the MPs' use of the programme. Keefer and Khemani (2009) explored the earlier elections of 1991, 1996, 1998 and 1999 with an MPLADS lens, focusing on the relationship between past party polling strength and MPLADS spending, while Pal and Das (2010) looked for evidence of a political business cycle by examining MPLADS spending in the first half of the 14th (2004–09) Lok Sabha tenure. Thus far, however, no published work has appeared on the relationship between MPLADS spending and re-election outcome, which would presumably constitute the central incentive for individual MPs to engage in political business cycles in the first place.

The 2009 election itself could not have been credibly analysed for any links between MPLADS spending and election outcomes, because constituency delimitations, which had remained in place since 1971, were changed throughout the country in 2008, so that while incumbents could run for re-election in 2009, they would be contesting from geographically reordered constituencies.[11] The new delimitation meant that whatever MPLADS funds they had spent before the election had at least in part (and for many MPs in large part) benefited areas outside their new seat, while at the same time much of the area included in the new constituency would have been in some other MP's seat until shortly before the election, and any MPLADS-financed infrastructure would quite likely be attributed by voters to that other MP rather than the present incumbent.

Accordingly, an examination of MPLADS spending and incumbent re-election would have made little sense for the 2009 poll. For the 2014 election, however, constituency boundaries had been intact for the previous five years, and thus all MPLADS activity would have occurred among the electorate voting in 2014. Furthermore, the increase in MPLADS allocations from ₹2 crore to ₹5 crore in 2011 meant that the temptation for MPs to indulge in a political business cycle could be expected to have increased, making prospects for the present analysis even more attractive.

A couple of caveats must be mentioned with respect to the use of data from these reports. First, the Indian government's fiscal year runs from 1 April to 31 March, whereas the 2014 election occurred in 10 phases between 7 April and 12 May of that year. This means that somewhere between seven and 52 days may have passed between the end of the MPLADS reporting period and the election itself, during which projects may have been completed, plaques been installed, and publicity generated through local media coverage. The opportunity thus existed for some MPs to press for a last-minute rush of activity that did not get recorded in the MPLADS annual report.

A second and more serious problem stems from reporting delays: the required monthly reports for many constituencies were not all filed in time by their respective district authorities to ensure inclusion in the MPLADS annual report.[12] The annual report for the 2013–14 fiscal year (MOSPI 2016a) included a full year's worth of data for 58% of the MPs running for re-election, with another 5% a month behind and 16% two months behind. However, the remaining 21% were further in arrears, and more than 6% were six or more months behind. For the other four years of the cycle, the proportion of seats with complete reports varied from 68% to 74%. It is interesting to note that for the last year of the cycle, reporting from the district authorities was distinctly lower than in any of the previous four years, perhaps reflecting an increase in MPLADS spending that made it difficult for the bureaucracy to keep track of things.

Data for the vast majority of constituencies were not updated by the end of the fiscal year in one or more years during the cycle. In fact, for only 99 or just over 25% of our 382 seats did district authorities turn in a report covering the entire year for all five years. At the other extreme, 19 seats were never covered to the fiscal year's end in any of the five years (of which 13 were in Uttar Pradesh).

For those MPs for whom district authorities did file MPLADS reports through the complete fiscal year, two basic items of information relevant to this study appeared for every year:
(i) How much he or she actually spent from the fund;
(ii) How many works were completed.[13]

(n for each year in parentheses)
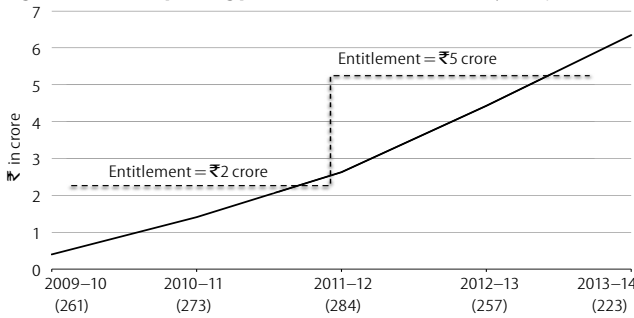
Fortunately, another MOSPI data set offers a partial work-around to the deficiencies of the set just described. A different report (MOSPI 2016b) included a final total for each MP's expenditures over the term of the 15th Lok Sabha. This figure comprised all data eventually submitted by the district authorities, in particular the expenditures not reported in time to be included in MOSPI's annual reports. Thus, while the average obtained by adding the yearly figures was ₹14.0 crore per MP, the final figure for the 15th Lok Sabha was ₹17.9 crore per MP, a substantial difference. As if to compensate for this deficiency, a complete expenditure sum for all 382 incumbent MPs seeking re-election now becomes available. Unfortunately, this final report did not include a year-by-year breakdown, meaning that to gauge any political business cycle, we must refer to the yearly reports and the reduced data set of MPs. The final report does not include any information on works completed by each MP either.

It will therefore be necessary to employ two data sets here: one giving total MPLADS expenditure for all 382 sitting MPs contesting the 2014 election; and the other providing year-by-year spending for the smaller sets of MPs for whom reports were submitted in timely fashion each year, and then works completed for the final year of the 15th Lok Sabha. Using two data sets—one of them with fluctuating numbers in each year—makes the analysis somewhat cumbersome, but the benefit comes in assessing a possible political business cycle and works completed from the smaller data set and a figure for total spending over the whole cycle from the larger set.

Aside from the MPLADS programme, the Election Commission provides three other indicators that could have an effect on which candidates win or lose elections:

(i) Seat types: As noted above, India's 543 elected Lok Sabha seats are divided into three groups: general seats, in which any citizen may run, and two kinds of "scheduled" seats, in which only members of an officially recognised Scheduled Caste or Scheduled Tribe may run. Incumbents contested the 2014 election from 287 general, 66 Scheduled Caste and 32 Scheduled Tribe seats. The type of seat may have had an impact on election outcome in addition to party identity and MPLADS spending.

(ii) Gender: Women constituted 13% of the 385 incumbents contesting in 2014. A higher proportion (42.4%) of male candidates won than females (36.0%), so gender is worth considering as a factor contributing to electoral success.

(iii) Age: Incumbent contestants ranged between 31 and 93 years of age, with almost 10% over 70 and more than 4% over 75. There is evidence from an earlier study (Pal and Das 2010)

that older MPs tended to exhibit political business cycles in MPLADS spending more than younger ones, so it would be good to see if a similar pattern can be found in the present analysis.

The statistical software package employed for the analysis was SPSS, version 21.

A Political Business Cycle?

Figure 1 shows yearly MPLADS spending throughout the 15th Lok Sabha for those MPs for whom spending data were complete through the end of each fiscal year in the cycle. On average, they increased their use of MPLADS funds over the course of their term from about ₹0.4 crore in 2009–10 to more than ₹6 crore in 2013–14. Part of the increase of course stems from the enlargement of the MPLADS programme from ₹2 crore to ₹5 crore in 2011, but the growth in usage clearly occurred independent of the rise in funds available. From very little drawdown in their first year, usage grew in the second, and then after the boost to ₹5 crore it expanded from about ₹2.6 crore in 2011–12 to an average of ₹6.4 crore in the year running up to the 2014 election. This last figure—over a crore greater than the allotment for the year and possible because of the non-lapsability provision of MPLADS—certainly hints at a possible political business cycle.

Was this spending pattern more prevalent among some MPs than others? The one-way analysis of variance (ANOVA) test (which tests the probability that different groups can be considered as belonging to different populations) should determine whether there is any difference when MPs are divided into groups by party, election alliance or ideology. When the MPs with timely reports to MOSPI are divided by party group (the Congress, BJP and Other taxonomy used for Table 1) and the ANOVA test is run for 2013–14, the F-statistic is not statistically significant, meaning that all three groups should be viewed as parts of the same population; that is, there are no real differences among them with regard to MPLADS spending, as can be seen in Table 2.[14] The same

Table 2: Analysis of Variance for MPLADS Spending by Party for MPs with Complete Annual Files for 2013–14 and for All MPs for the Five-year Cycle 2009–14

Party	n	Mean	Std dev	F
MPs with Complete Annual Files for 2013–14 (n = 223)				
INC	93	6.13	2.31	1.051
BJP	39	6.76	2.57	
Other	91	6.40	2.28	
All MPs for the 2009–14 Cycle (n = 382)				
INC	151	17.84	2.41	2.011
BJP	83	17.50	2.09	
Other	148	18.12	2.19	

* p < .05 ** p < .01 *** p < 001
BJP = Bharatiya Janata Party; INC = Indian National Congress.

is true for all contesting MPs together over the five-year period, where the ANOVA-derived F-statistic remains insignificant.

In their study of MPLADS funding during the first half of the 14th Lok Sabha (2004–09), Pal and Das (2010) developed an ordinal index of "political affiliation," dividing parties into left (mainly the communist parties), centre (mainly the INC) and right (mainly the BJP) groups, and finding that during the first half of the five-year cycle, the rate of spending decreased, moving left–centre–right, leading the authors to conclude that the right, having saved in the early years, would spend the most towards the end of the cycle. For the 2009–14 cycle, the earlier Pal and Das prediction came true, for incumbent candidates on the right did spend more during the cycle's last year, as shown in Table 3 (p 103), but the differences between groups were not significant

on the F-statistic. For the whole five years, when fully 360 of the 382 contesting MPs fit into one or another of the ideological groupings, those on the left spent about 5.3% more than those at the centre, who in turn spent about 2.3% more than those on the right, but again, there was no statistical significance.

When the MPs are divided according to their party's membership in one of the two electoral alliances in place for the 2014 election (the Congress-centred United Progressive Alliance or UPA and the BJP-centred National Democratic Alliance or NDA), NDA contestants spent somewhat more MPLADS money than their UPA counterparts in 2013–14, as shown in Table 4, though over the whole five-year period UPA candidates spent a bit more than those in the NDA. In no individual year or the overall five-year run, however, were the differences statistically significant in the t-test for difference of means.

In summary, while incumbent candidates showed a monotonic increase in their MPLADS spending over the five-year term of the 15th Lok Sabha—clearly a political business cycle by any definition—there were no real differences in spending patterns whether one sorts incumbent candidates by party, ideology or by party alliance.

Winners and Losers

We can now turn to assessing the electoral impact of MPLADS spending. Did the rate of spending or number of works completed actually help or hinder incumbents in their efforts to be returned to office in 2014? Table 5 will provide more detail for both the spending and the works variables for those incumbent contestants for whom district authorities submitted reports to MOSPI updated to the end of the 2013–14 fiscal year (n = 223). The t-test is employed to assess the likelihood that two sets of data (here winners and losers) can be considered part of the same population (that is, that there is really no difference between them).

Here it will be seen that in 2013–14, losers spent more and completed more works than winners, though in neither case were the differences significant in the t-test. However, while losers saw more works completed in their constituencies (about 199) than winners (about 179), they spent less for each one on average (about ₹3,23,000) than the winners (about ₹3,51,000) did, suggesting that their works were perhaps more

Table 3: Analysis of Variance for MPLADS Spending by Ideology for MPs with Complete Annual Files for 2013–14 and for All MPs for the Five-year Cycle 2009–14[a]

Party	n	Mean	Std dev	F
MPs with Complete Annual Files for 2013–14 (n = 206)				
Left	14	6.10	2.35	0.648
Centre	153	6.33	2.29	
Right	39	6.76	2.57	
All MPs for the 2009–14 Cycle (n = 360)				
Left	17	18.84	1.68	2.591
Centre	260	17.90	2.39	
Right	83	17.50	2.31	

[a] Of the 382 MPs in the full data set used for this paper, 22 did not fit readily into the left, centre, right taxonomy, leaving the total n = 360.
* p < .05 ** p < .01 *** p < 001

Table 4: T-test MPLADS Spending by Party Alliance for MPs with Complete Annual Files for 2013–14 and for All MPs for the Five-year Cycle 2009–14[a]

Alliance	n	Mean	Std dev	t
MPs with Complete Annual Files for 2013–14 (n = 206)				
UPA	105	6.15	2.22	–.808
NDA	54	6.46	2.48	
All MPs for the 2009–14 Cycle (n = 360)				
UPA	165	17.98	2.38	1.307
NDA	103	17.61	1.98	

[a] Of the 382 MPs in the full data set used for this paper, 114 did not fit readily into either alliance leaving the total n = 268.
* p < .05 ** p < .01 *** p < 001

spread out geographically in order to be visible to more voters. If so, the tactic did not help them get elected.

A similar t-test exercise (not shown here) comparing winners and losers for INC incumbent contestants showed no statistical significance for either of Table 5's variables even at p < .10. For the BJP incumbent candidates, a t-test for the total spent in 2013–14 showed significance at p < .001, with losers spending almost 78% more than winners in that year, but there were only five BJP losers against 34 winners, and three of the five losers showed spending levels in that year more than 5 standard deviations above the mean for all 382 incumbent contestants, so the high t-test score reveals little of interest about overall patterns. Finally, for the Other incumbent candidates, neither money spent in 2013–14 nor works completed in that year showed a t-score not significant even at the .10 level.

When a set of t-tests is run for our larger sample of 382 MPs, using our single datum on MPLADS spending over the five-year period, results change somewhat, as shown in Table 6.[15] The t-test does show a difference for all incumbent candidates (p < .05), but a glance further down the table reveals that the difference is entirely attributable to the Other candidates, for whom more spending over the five-year period was significantly (p < .001) associated with electoral victory in 2014. For INC and BJP incumbents, however, although in both cases winners spent more than losers on average, there was no real difference between winners and losers in this respect (p > .05). For Other candidates, however, there does appear to be a definite link between overall MPLADS spending and electoral success. The next section will explore these MPLADS investments and their linkage to election outcomes in greater detail.

What Contributed to Electoral Success in 2014?

Although an apparent political business cycle did take place over the course of the 15th Lok Sabha among MPs seeking re-election, it did not have any appreciable link to electoral success in 2014, as shown in this paper's previous section. Overall MPLADS spending during 2009–14 did seem to have some connection with election outcome, however, at least in the case of the Other MPs, who were not in the Congress or BJP. Perhaps other factors were at work as well, which can now be tested. In this section, logistic regression will be employed, which is a

Table 5: Member of Parliament Contestants and MPLADS Fund Deployment in 2013–14

MPLADS Performance	Winners (n = 92)		Losers (n = 131)		
	Mean	Std dev	Mean	Std dev	t
Total spent (₹crore)	6.27	1.90	6.41	2.62	–.429
Works completed	178.50	153.19	198.76	215.68	–.774

* p < .05 ** p < .01 *** p < .001

Table 6: Member of Parliament Contestants and MPLADS Five-year Spending (n = 382)

	n	Winners		Losers		
		Mean	Std dev	Mean	Std dev	t
All incumbent candidates	W=159					
	L=223	18.18	2.18	17.67	2.31	2.200*
INC incumbents	W=30					
	L=121	18.14	2.51	17.77	2.40	.745
BJP incumbents	W=72					
	L=11	17.58	2.13	17.02	1.89	.829
Other incumbents	W=57					
	L=91	18.96	1.83	17.60	2.25	3.832***

* p < .05 ** p < .01 *** p < .001
W = won seat; L = lost seat

technique for assessing how predictors relate to a binary dependent variable, in this case winning or losing the 2014 election. The question asked is to what extent do these independent variables tip the odds of winning or losing for individual candidates.

Table 7 offers the results of a logistic regression for the 223 MPs in our smaller set of incumbent candidates for whom MOSPI data on the 2013–14 fiscal year were complete. Model 1 includes all the independent variables, listed here with their coefficients (B), standard errors, and exponentiated coefficients (the antilog of their coefficients in the regression, expressed here as natural logarithms), which allow an assessment of how much each variable would modify the odds for an MP winning his or her seat. As would be expected from the fact that 80% of incumbent INC candidates lost while 87% of BJP candidates won, membership in either of these parties affected the odds of winning hugely. Entering the race as a Congress contestant increased one's odds by a factor of .282 or in other words reduced those odds by .718 (that is, 1– .282 = .718).

In contrast, obtaining a BJP ticket greatly increased one's odds, by a factor of 13.767 (that is, 1 + 12.767). Both party predictors were correspondingly significant (p < .001). Overall MPLADS spending also produced a significant effect on odds,

increasing them by a factor of .308 for the average candidate spending an extra crore of rupees (p < .01), although spending an extra crore in the last year before election actually reduced odds by .13 (that is, 1– .87 = .13). Our other predictors had some impact as well: a female candidate found her odds of winning reduced by a factor of .16 (that is, 1– .84 = .16); a year's extra age increased odds minutely by .016; running in a reserved seat reduced odds by .564 (that is, 1– .436 = .564), but aside from total MPLADS spending over the five-year cycle, none of these predictors reached significance even at the 10% level (p > .10 in all cases). Works completed, with an exponentiated coefficient of 1.000, did not change odds at all.

A different way to think about these results is to look at predictive power. If we know only that 131 of the 223 candidates lost, our best guess about any particular candidate would be that he or she lost, which would be a correct prediction 58.7% of the time. However, if we know the value of all the predictors in Model 1 for any individual candidate, we could make a correct prediction 76.2% of the time, an improvement of 17.5 percentage points and a pseudo R² of .385.

Model 2 repeats the exercise but without the party identifiers, showing that an incumbent contestant from any party would on average improve his odds by a factor of .2 by spending an extra crore of rupees. However, the finding comes with significance only at the 5% level (as opposed to the 1% level in Model 1), indicating some interaction between party group and MPLADS spending. The model raises predictive power by only 5 percentage points, from 58.7% to 63.7%, yielding a very modest pseudo R² of .057.

The five models in Table 8 show only the exponentiated coefficients from logistic regression results for the complete set of incumbent candidates. In Model 3, as with Model 1 for the smaller set, receiving the ticket for one of the two major parties proved to be by far the major factor associated with electoral success (for the BJP) or failure (for the Congress). Apart from that, spending an extra crore of rupees over the five-year term of the 15th Lok Sabha improved the odds of victory by a factor of .229 for the average candidate, and the six predictors taken together yield a pseudo R² of .366. When party identification is dropped in Model 4, the pseudo R² also drops from .366 to a mere .029, and the additional crore of MPLADS spending is not helping much: a .11 boost to the odds.

Even so, MPLADS spending is having some effect somewhere, which is explored in Models 5 through 7, which include all incumbent candidates by party group. Here it becomes evident that while the extra crore rupees did little for INC or BJP incumbent contestants (increasing their odds of winning by .060 and .048 respectively), it did improve the odds for Other candidates by .409 and with some significance (p < .01). In addition, seat type shows up having an effect, in that running in an SC or ST constituency reduced the odds of success by a factor of .703 (that is, 1 – .297 = .703) for Other candidates. These two predictors together (along with the constant) raise the pseudo R² from .029 in Model 4 to .203 in Model 7.

Table 7: Logistic Regression for Incumbent Candidates in 2014 with Complete Files for Fiscal Year 2013–14

	Model 1 Including Major Party Identity			Model 2 Excluding Major Party Identity		
	B	SE	Exp(B)	B	SE	Exp(B)
Gender	−.174	.494	.840	−.205	.402	.815
Age	.016	.017	1.016	.009	.014	1.009
Seat type	−.830	.428	.436	−.455	.344	.635
MPLADS spending in 2014	−.139	.075	.870	−.051	.063	.950
Works completed in 2014	.000	.001	1.000	−.001	.001	.999
MPLADS spending 2009–14	.269	.098	1.308**	.182	.078	1.200*
INC incumbent	−1.267	.362	.282***			
BJP incumbent	2.622	.577	13.767***			
Constant	−4.191	2.138	.015	−3.180	1.716	.042
Correctly predicted ex ante (%)	58.7			58.7		
Correctly predicted ex post (%)	76.2			63.7		
Nagelkerke pseudo R²	.385			.057		
Chi square	75.1			9.7		
Df	8			6		
N	223			223		

* p < .05   ** p < .01   *** p < .001

Table 8: Logistic Regression for All Incumbent Candidates in 2014— Exponentiated Coefficients

	Model 3 Including Major Party Identity Exp (B)	Model 4 Excluding Major Party Identity Exp (B)	Model 5 INC Incumbents Exp (B)	Model 6 BJP Incumbents Exp (B)	Model 7 Other Incumbents Exp (B)
Gender	.789	.805	.368	.649	1.310
Age	1.012	1.007	1.016	1.002	1.011
Seat type	.689	.687	1.315	3.199	.297**
MPLADS spending (2009–14)	1.229**	1.110*	1.060	1.148	1.409**
INC incumbent	.398***				
BJP incumbent	13.095***				
Constant	.013**	.122	.028	.148	.003**
Correctly predicted ex ante (%)	58.4	58.4	80.1	86.7	61.5
Correctly predicted ex post (%)	75.9	59.9	80.1	86.7	71.6
Nagelkerke pseudo R²	.366	.029	.041	.053	.203
Chi square	121.3	8.3	3.9	2.4	23
Df	6	4	5	6	9
N	382	382	151	83	148

* p < .05   ** p < .01   *** p < .001

Conclusions

The answer to the first question posed at the outset of this paper is, yes, a political business cycle certainly existed in the

form of MPLADS annual spending during the term of the 15th Lok Sabha from 2009 to 2014. On average, MPs elected in 2009 and contesting again in 2014, used substantially less than their MPLADS allotment at the beginning of their term, following a gradually upward trajectory over each of the following years, and finally spending saved-up funds in addition to the annual allotment in the year running up to the 2014 election.

To answer the second question, spending during that final year had only a modest link with election outcome, and that relationship was actually negative, with losers spending very slightly more than winners. Over the entire five years, however, MPs who became winners in 2014 expended a bit more than the losers, though this pattern attained statistical significance only for incumbents not in either the INC or the BJP. The other MPLADS factor that may have influenced election outcome was the number of infrastructural works completed towards the

end of the parliamentary cycle, but that had no statistically significant effect at all. Nor did candidate gender or age.

All of these factors were dwarfed by political party as predictors of election outcome, with an INC ticket dragging down the odds of re-election and a BJP ticket boosting them by a much larger factor. However, 2014 was a most unusual election in that the Modi "wave" swept all before it, giving the BJP the first absolute majority in the Lok Sabha for any party in more than 25 years, while humiliating a tired Congress party throughout the country—a phenomenon so powerful that it smothered most of what political business cycle or MPLADS spending might otherwise have contributed to election outcomes. Perhaps the next Lok Sabha election will be a more "normal" or in any case a relatively waveless one, allowing a test of political business cycles and their electoral impact in a different context.

NOTES

1 For a review and assessment of the literature since 1975 devoted to these cycles, see Dubois (2016). More generally, see Alesina et al (1997).

2 India's upper house, the Rajya Sabha (to which members are indirectly elected by the country's state legislatures to represent their states as a whole), has a parallel programme, but the present analysis will be restricted to the popularly elected Lok Sabha.

3 In 2014, ₹1 crore was equivalent to roughly $1,70,000 and ₹5 crore to $8,50,000.

4 See MPLADS (2014).

5 Actually, an incumbent could have accumulated more than ₹19 crore, because unspent MPLADS funds gather interest, and unspent balances at the end of a term can be held over until the next term.

6 The seats not contested by the major parties were generally allotted to smaller parties with which they had formed alliances for that particular election.

7 Some 2009 winners chose to retire, some died in office, and some were refused their party's ticket.

8 Aside from those in the Congress and BJP, incumbents belonged to some 39 parties, a few of them dominant in a single state but most quite small (30 of the 39 had only one or two incumbents contesting in 2014).

9 The actual number of incumbent candidates was 385, but three seats were dropped from this analysis to avoid distorting outliers in statistical analysis. All three are very small union territories, each entitled to at least one MP irrespective of population. They are Andaman and Nicobar, Daman and Diu, and Lakshadweep, each with less than 3,00,000 voters, as against an average of more than 1.5 million voters in the remaining seats with incumbents contesting.

10 See Wallace (2015) for a comprehensive analysis of the 2014 election. For a shorter assessment, see Palshikar and Suri (2014).

11 For a thorough account of the delimitation process in India, see Alam and Sivaramakrishnan (2015), especially the essay by Sivaramakrishnan (pp 64–87).

12 It should be noted that this reporting procedure places the onus for tardiness on the district bureaucracy rather than the MP, thus lessening the possibility that the gaps reflect an effort to hide last-minute MPLADS spending.

13 Khemani (2004) reports that state governments in India spend more on roads in an election year. It would be useful to the present analysis if sector-level data were available for individual MP spending on MPLADS each year, but the official report provides such figures only at state and national levels. Still, it is interesting to observe that in 2013–14, the category "roads, pathways and bridges" received more MPLADS money (38.2%) than any other sector,

followed by "other public facilities" (for example, public meeting halls) at 30.0%. These two sectors also ranked first and second in number of works sanctioned (figures calculated from MPLADS Annual Reports).

14 The same lack of significance holds for the other four years in the cycle as well.

15 The MoSPI report for the 15th Lok Sabha provided data only on MPLADS spending, not on works completed (MoSPI 2016b).

REFERENCES

Aiyar, Yamini (2010): "SC Upholds the MPLADs Scheme: A Questionable Judgment?," Accountability Initiative, Centre for Policy Research, New Delhi, 7 May, http://accountabilityindia.blogspot.in/2010/05/sc-upholds-mplads-scheme-question able.html.

Alesina, A, N Roubini and G Cohen (1997): *Political Cycles and the Macroeconomy,* Cambridge, MA: MIT Press.

Dubois, E (2016): "Political Business Cycles 40 Years after Nordhaus," *Public Choice,* Vol 166, Nos 1–2, pp 235–59.

ECI (2009): "Archive of General Elections 2009," Election Commission of India, http://eci.nic.in/eci_main1/statistical_report.aspx.

— (2014): "Archive of General Election 2014," Election Commission of India, http://eci.nic.in/eci_main1/statistical_reportge2014.aspx.

GoI (2001a): "Evaluation Report on Member of Parliament Local Area Development Scheme," Programme Evaluation Office, Planning Commission, Government of India, New Delhi, http://planningcommission.nic.in/reports/peoreport/peoevalu/peo_mplad.pdf.

— (2001b): "Report of the Comptroller and Auditor General on MPLADS," Comptroller and Auditor General, Government of India, http://www.cag.gov.in.

— (2011): "Performance Audit of Member of Parliament Local Area Development Scheme," Comptroller and Auditor General of India, Government of India, Report No 31, http://www.cag.gov.in/sites/default/files/audit_report_files/Union_Performance_Local_area_Development_Scheme_31_2010.pdf.

Keefer, P and S Khemani (2009): "When Do Legislators Pass on Pork? The Role of Political Parties in Determining Legislator Effort," *American Political Science Review,* Vol 103, No 1, pp 99–112.

Khemani, S (2004): "Political Cycles in a Developing Economy: Effect of Elections in the Indian States," *Journal of Development Economics,* Vol 73, No 1, pp 125–54.

Mohanty, S S (2004): "Rhetoric and Reality of MPLADS," Centre for Budget and Governance Accountability, New Delhi.

MPLADS (2014): "Guidelines on Members of Parliament Local Area Development Scheme (MPLADS)," Ministry of Statistics and Programme Implementation, Government of India, http://www.mplads.gov.in/MPLADS/UploadedFiles/MPLADSGuidelines2016English_638.pdf.

MoSPI (2016a): "Members of Parliament Local Area Development Scheme: Annual Report 2013–14," Ministry of Statistics and Programme Implementation, Government of India, reports for each year, http://www.mplads.gov.in/mplads/En/2016-annual-report-english.aspx.

— (2016b): "Released/Expenditure State-wise Details for 15th Lok Sabha MPs," Ministry of Statistics and Programme Implementation, Government of India, http://www. mplads.gov.in/mplads/En/2021-expenditure-details-of-15-lok-sabha.aspx.

Nordhaus, W D (1975): "The Political Business Cycle," *Review of Economic Studies,* Vol 42, No 2, pp 169–90.

Pal, R and A Das (2010): "A Scrutiny of the MP-LADS in India: Who Is It For?" *Economic & Political Weekly,* Vol 45, No 2, pp 63–68.

Palshikar, S and K C Suri (2014): "India's 2014 Lok Sabha Elections: Critical Shifts in the Long Term, Caution in the Short Term," *Economic & Political Weekly,* Vol 49, No 39, pp 39–49.

Prabhakar, K, P Srikant and V V Reddy (2012): "How Do MPs Utilise MPLADS in Karnataka?" slide presentation at Public Affairs Centre, Bengaluru, 10 May, http://www.slideshare.net/PAC_India/how-do-mps-utilize-mplads-in-karnataka.

Saez, L (2016): "The Political Budget Cycle and Subnational Debt Expenditures in Federations: Panel Data Evidence from India," *Governance: An International Journal of Policy, Administration and Institutions,* Vol 29, No 1, pp 47–65.

Sen, K and R R Vaidya (1996): "Political Budget Cycles in India," *Economic & Political Weekly,* Vol 31, No 30, pp 2023–27.

Sezhiyan, E (2005): *Member of Parliament Local Area Development Scheme (MPLADS): Concept, Confusion, Contradictions,* New Delhi: Institute of Social Sciences.

Sivaramakrishnan, K C (2010): "Judicial Setback for Panchayats and Local Bodies," *Economic & Political Weekly,* Vol 45, No 32, pp 43–46.

— (2015): "Delimitation in India: A Political-Historical Overview," *Fixing Electoral Boundaries in India: Laws, Processes, Outcomes, and Implications for Political Representation,* M S Alam and K C Sivaramakrishnan (eds), New Delhi: Oxford University Press, pp 64–87.

Surya Prakash, A (2013): *Public Money, Private Agenda: The Use and Abuse of MPLADS,* New Delhi: Rupa Publications.

Wallace, P (ed) (2015): *India's 2014 Elections: A Modi-led BJP Sweep,* New Delhi: Sage Publications India.

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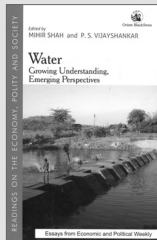
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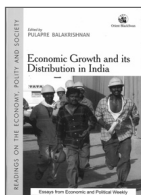
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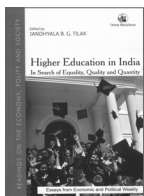
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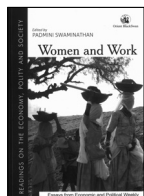
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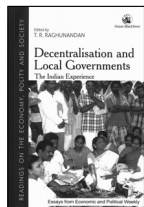
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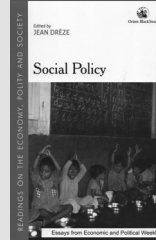
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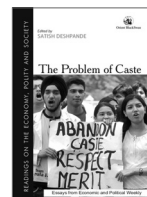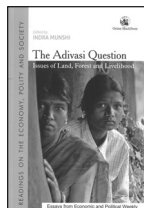
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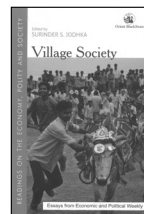
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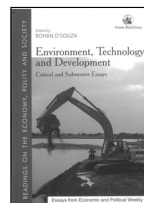
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