## **Does Political Ideology Affect Expenditure on Public Goods?**

## A look at the MPLAD Scheme in India

Dissertation submitted to Jawaharlal Nehru University

In partial fulfilment of the requirements for the award of the degree of

## MASTER OF PHILOSOPHY

Ananya Diwakant



CENTRE FOR ECONOMIC STUDIES AND PLANNING (CESP)

SCHOOL OF SOCIAL SCIENCES

JAWAHARLAL NEHRU UNIVERSITY

NEW DELHI – 110067

INDIA

2020

## **RECOMMENDATION FORM FOR EVALUATION BY THE EXAMINER/S**

## CERTIFICATE

We recommend this thesis/dissertation be placed before the examiners for evaluation for the award of the degree of M.Phil/M.Tech./Ph.D.

Signature of Supervisor

Chart

Signature of Dean/Chairperson

Date: 18 [01 ] 202 ]

Date: 12/1/2021

Supervisor CESP, SSS, JNU NEW DELHI- 110067

Chairperson es & Plann School of Social Sciences ल नेहरू विश्वविद्यालय / Jawaharlal Nehru University 110067 / New Delhi 110067

# Dedicated to my Family

and Teachers

#### Acknowledgements

First and foremost, I would like to thank my M.Phil. supervisor Professor Sujoy Chakravarty for his exceptional guidance and support through the past year and a half. He has been very generous with his time and this dissertation would not have been possible without the many discussions I had with him. His comments were indispensable to the completion of this dissertation. I am also very thankful to Professor Rishabh Kumar who helped me formulate the research question, guided me to various data sources and provided valuable feedback on the work. I am greatly indebted to Professor Subrata Guha who inspired and motivated me to pursue research in the first place.

I would also like to thank Dr. Rashmi Akhoury, Dr. Baikunth Roy and other professors and students at the Department of Economics, College of Commerce, Arts and Science, Patna, for participating in a presentation of this work. Their feedback and questions helped give the dissertation its present shape. I also benefitted greatly from the discussions I had with Pranav who guided me to the relevant literature and Ninan who read the first draft and gave useful comments.

I would like to acknowledge the role played by my parents, brother and sister-in-law who kept me sane during the pandemic. They took care of everything else, helping me focus completely on my work. I would also like to thank my oldest friends Apara, Ayushi and Gurkirat whose unflinching support encouraged me to keep going even in the most despondent times. I am also indebted to Aakash, Anuvinda, Apurva, Aranyak, Jatin and Prashant for keeping my spirits up and helping me find my way in this journey.

Lastly, I would like to thank all the frontline workers, especially my friend Dr. Suvidya, who continue to risk their lives everyday so that we can go on with ours.

Ananya Diwakant Jawaharlal Nehru University New Delhi 2020

## Contents

List of Tables i
List of Figures i
1. Introduction
2. Literature Review
2.1 What is Political Ideology?
2.2 Ideology of Political Parties in India
2.3 Political Ideology and Public Expenditure
2.4 Members of Parliament Local Area Development Scheme (MPLADS) 10
3. Data and Empirical Strategy 12
3.1 Choice of Variables
3.2 Empirical Strategy
3.2.1 Specification
3.2.2 Validity of Empirical Strategy
4. Results
5. Further research
6. Conclusion
References
Appendix

A.1.	MPLADS	Guidelines	for	Lok	Sabha	MPs.	Source:	
http://www.mplads.gov.in/mplads/En/2010-mplads-guidelines.aspx								
A.2. Cl	assification of po	olitical parties. So	ource: Ba	nerjee, Get	hin and Pike	etty (2019)		

#### **List of Tables**

Table 1: Summary Statistics of MPLADS variables       1	5
Table 2: RDD non-randomised approximate sign test for continuity of running variable margin a	t
cutoff1	9
Table 3: Summary statistics of variables used in the RDD    20	0
Table 4: RDD robust estimators for pre-determined variables    2	1
Table 5a and 5b: Results of OLS regression of the outcome variables on ideology dummy for	
15th and 16th Lok Sabha 2-	4
Table 6a and 6b: RD effect of political ideology on MPLADS expenditure incurred as a	
percentage of the amount available (utilisation) and MPLADS expenditure incurred as a	
percentage of funds released by Government of India (utilisation over released)	8

## **List of Figures**

Figure 1: RD effect of ideology on utilisation	
Figure 2: RD effect of ideology on utilisation over released	
Figure 3: RD plot of utilisation against victory margin	
Figure 4: RD plot of utilisation over released against victory margin	

#### **1. Introduction**

The manner and extent of the relationship between political factors and economic outcomes have been of interest to both political scientists as well as economists. Within this broad area of research, the question of whether the political affiliation of a policymaker to the left-wing or right-wing has a significant impact on people's welfare is especially intriguing. The left-wing is commonly associated with greater state intervention and a resultant higher level of public expenditure on welfare programmes. There is, in fact, a vast literature on the estimation and significance of such an effect in both rich and poor democracies, spanning over the last few decades. Schmidt (1982), Henrekson and Lybeck (1988) and Verma (2002) find no significant effect of ideology on public expenditure in certain advanced economies, contradicting expectations from theory. Cameron (1978) and Blais, Blake and Dion (1993) find a small but significant effect, with left-wing parties spending more on public goods than their right-wing counterparts. Pettersson-Lidbom (2008), on the other hand, finds a substantial difference of about 2%-3% higher expenditures as a share of income by the left-wing governments in Sweden. In developing and under-developed economies, Sturm (2001) finds that ideology does not have a significant effect on government capital spending. In this study, I look at a similar question in the Indian context: does political ideology cause members of Lok Sabha to spend differently on welfare programmes under Members of Parliament Local Area Development Scheme (MPLADS)?

To estimate the causal impact of ideology on expenditure on welfare programmes, it is imperative to control for all plausible factors that might affect the outcome variable. In the absence of the possibility of randomising the election of candidates, one method that researchers have employed is Regression Discontinuity Design which exploits a discontinuity in the treatment variable (first used by Thistlethwaite and Campbell, 1960). The intuitive idea behind this methodology is to look at 'close contest elections' and compare the outcome variable for units 'barely above' and 'barely below' the point of discontinuity. This solves the problem of counterfactuals since units just below the threshold are not expected to be very different from those just above it except in the treatment received.

The treatment variable (D) in this study is the political ideology of the elected candidate, which I assume to be the same as that of the party they belong to. I classify the various political parties into three groups, right-wing, left-wing and centre.<sup>1</sup>  $D_i = 1$  if a right-wing candidate is elected and 0 if a left-wing or centrist candidate wins. Given the first-past-the-post electoral system in India,  $D_i$  is a discontinuous function of an observed running variable (x) - the difference between the highest vote share of a right-wing and a non-right-wing candidate, data on which is obtained from Trivedi Center for Political Data which compiles Election Commission of India (ECI) records. When the highest vote share of a right-wing candidate exceeds that of a non-right-wing candidate, i.e.  $x_i > 0$ ,  $D_i = 1$ . Similarly, when  $x_i < 0$ ,  $D_i = 0$ . There is thus a discontinuity (at  $x_0$ ) in the assignment of the treatment  $D_i$  at  $x_i = 0$ .

The outcome variable (y) is the fund utilised by Members of the Lok Sabha under the MPLADS as a proportion of the total funds available to them. Since 1993, the Scheme has enabled MPs to recommend works of developmental nature (with emphasis on durable assets) based on needs of their constituencies, e.g. drinking water, sanitation, primary education, public health, sanitation and roads. At the time of launch in 1993-94, an annual amount of Rs.5 lakh was allotted to each MP which was revised to Rs.1 crore from 1994-95, Rs.2 crores from 1998-99 and Rs.5 crores from

<sup>&</sup>lt;sup>1</sup> Where such categorisation cannot be made, the party is assigned as 'other'.

2011-12. MPLADS is fully funded by the Government of India, and allotments are standardised. They do not depend on the party in power or the party that the MP belongs to, and its utilisation can, therefore, provide a measure of an MP's willingness to contribute towards welfare expenditure in their respective constituencies. For this analysis, I use publicly available data on available and utilised funds for 543 Lok Sabha MPs each for 15<sup>th</sup> and 16<sup>th</sup> Lok Sabha sessions, including by-elections.

Using data on D, x, and y, I estimate a regression discontinuity model using the Stata package *rdrobust* with local linear specification and a triangular kernel for multiple bandwidths. I find that even though on average right-wing MPs spend less than left-wing and centrist ones, this difference is not statistically significant (and is, in fact, of the opposite sign) when the causal effect is isolated after controlling for other factors. This corroborates the evidence presented in the literature that Indian political parties are not primarily ideological in the conventional left-right economic dimension (Chhibber and Verma, 2018; Banerjee, Gethin and Piketty, 2019; Suri (2004, 2013); Yadav and Palshikar, 2006; Kumar, 2008; Nooruddin, 2010).

#### 2. Literature Review

#### 2.1 What is Political Ideology?

An enquiry into the meaning of political ideology would be much more meaningful if it were not restricted to the field of Economics. The work of political scientists, sociologists and psychologists in understanding what political ideology is, how it has evolved over time and whether it varies across geographical regions is expansive and informative. Over the years, many social scientists have attempted to define this "elusive" concept (McLellan, 1986). A seminal work in this domain is by Gerring (1997), who lists and discusses some of the most influential, yet contradictory, definitions of ideology. He argues that the identification of a "core" set of attributes, "differentiation" with other terminology and "context-specificity" would simplify the definitional issues pertaining to ideology. One universal core attribute of ideology that Gerring identifies is that it must be a "set of idea-elements that are bound together, that belong to one another in a nonrandom fashion." They must also be in 'contrast' with other sets of ideas and should be coherent over time ('stability'). Chhibber and Verma (2018) extend this to the domain of politics by referring to 'political ideology' as a set of idea-elements about the 'role of the state', specifying that in addition to 'contrast' and 'stability', it is also required for any political ideology to be transmitted to "enough" people and have their support.

Inglehart and Klingemann (1976) observe that political ideology, in terms of the frequently used words 'left' and 'right, has been a predominant feature of European politics and is an "efficient way to understand, order and store political information". These terms originated from the fact that in the second half of the eighteenth century, supporters and opponents of status quo sat on the right and left side of the French Assembly hall, respectively (Jost, Federico and Napier, 2009).

Analogous words have been used in different countries. For instance, the words "liberal" and "conservative" have been used to denote political ideology in the United States of America. According to Jost, Federico and Napier (2009), be it the left-right dimension or the liberal-conservative one, the two categories are primarily characterised on the basis of aspects that are similar to 18<sup>th</sup> century France. The left-wing is in favour of 'social change' whereas the right-wing opposes it and, the latter is accepting of inequality and the former is not. This characterisation, according to them, is convergent with most of those offered in political science literature wherein, inter alia, contrasts between 'conservative and progressive', 'order and protest', 'capitalism and socialism', 'free market and state intervention', 'system maintenance and system change' have been analysed.

Downs (1957), however, has a slightly different hypothesis. In his model of democracy, political parties "have no interest in creating any particular type of society" and they "formulate policy strictly as a means of gaining votes". Ideology is 'supplied' by political parties solely as a response to the demand for it by voters. Since information about the policies implemented by the government is imperfect and costly in terms of both time and money, voters find it easier to use the ideology of a party to decide whom to vote for. They use it as "samples of all the differentiating stands." Political parties, therefore, "invent an ideology" to get the votes of those who "wish to cut costs by voting ideologically." This, however, does not go against the attributes of ideology discussed by Gerring (1997) and Chhibber and Verma (2018). Downs argues that parties must stick to their invented ideologies to seem reliable to their voters, therefore making it time consistent. Their policy actions must also be "persistently correlated" with their ideology for voters to rationally opt for ideological voting. Moreover, it also satisfies the 'contrast' condition as parties distinguish themselves from others to attract voters away from other parties. This distinction,

according to Downs, gets diluted over time as "the successful ideology is soon imitated" and such differentiation becomes more subtle.

In addition to differing definitions and motivations behind the existence or 'invention' of ideologies, another point of contention among scholars has been regarding the 'structure' of political ideologies in terms of the 'dimensions' in which they must be looked at. Jost, Federico and Napier (2009) review the literature on various "multidimensional models of ideology" apart from the unidimensional left-right model. One such model frequently discussed in the literature discusses political ideology in the 'social' and 'economic' dimensions, which are argued to be independent of each other (that is, one could be "socially liberal and economically conservative" or "socially conservative and economically liberal"). The authors argue that this independence, even if it exists in the conceptual understanding of the terms, is not reflected in empirical evidence for more than 40 countries studied in Benoit and Laver (2006). Furthermore, their argument is similar to Downs (1967) in that they suggest that voters are likely to rely on the single left-right dimension instead of multiple ones to reduce their load of "excessive informational demands".

#### 2.2 Ideology of Political Parties in India

A recent and deeply insightful work on the ideology of political parties in India is by Chhibber and Verma (2018). With regard to political ideology in terms of the role of the state in the economy, they find that parties in India have not been very different in their economic policies.<sup>2</sup> Other literature, both old and new, on Indian politics has also made similar observations, based on which

<sup>&</sup>lt;sup>2</sup> They attribute this broad convergence in macroeconomic policies primarily to the fact that India is a relatively poor country and a majority of the voters' welfare depends on public goods provided by the state. Therefore, it is difficult for parties to not adopt a pro-poor stance. Also see Suri (2004, 2013); Yadav and Palshikar, 2006; Kumar, 2008; Nooruddin, 2010)

the role of ideology in Indian politics has not been thought to be pertinent. To Palmer (1967), the terms 'left' and 'right' were "meaningless" in the context of the fourth Lok Sabha elections and "for electoral purposes, at least, the left-right divide can be and has been bridged." He supports this claim by citing examples of coalitions formed between parties with seemingly diverse beliefs, one of them being the coalition between the Muslim League (now Indian Union Muslim League) and the Communist Party in Kerala. Rudolph and Rudolph (1987) argue that Indian politics has always been centrist, irrespective of the party in power. Right from the beginning, the Indian state had played a crucial role as an employer which limited capital-labour conflict. Moreover, according to their research, this was likely to remain the same even in the future and more than twenty years later, their stance did not change (Rudolph and Rudolph, 2009). Even the shift in economic policy after 1991, according to them, was not indicative of a 'pro-capitalist' state but a regulatory one, having kept the centrism in policy intact. DeSouza and Sridharan (2006) argue that only a few parties like the communist parties, the Bharatiya Janata Party (BJP) and the Shiv Sena are based in ideology. Even among them, "all aspects of their existence are not directly derived from their ideology." The other major parties have either originated out of social movements (for example, the Indian National Congress (INC) from the independence movement, or Asom Gana Parishad (AGP) from the movement against illegal Bangladeshis) or as representatives of certain interest groups (Bahujan Samaj Party, Akali Dal, National Conference, DMK, AIADMK).

Chhibber and Verma (2018) argue that even though existing literature gives the impression that political parties in India are 'nonideological', it is the distinction made along the economic dimension of political ideology that is not applicable here. They claim that "the conventional distinction regarding economic ideology— those who favour free markets on the right, and those who look for greater state intervention on the left— has limited resonance" in India. Moreover,

other factors underlying ideological divisions in Europe like the conflict between capital and labour, centre and region, urban and rural and, religion and state also do not hold much relevance in the Indian context. However, parties are still 'ideological', but along different, unconventional dimensions. According to them, there has been a stable divergence among parties in their views about the role of the state in transforming the society ("statism") and in accommodating the interests of backward groups ("recognition"). The "politics of statism" and the "politics of recognition" have been constant features of the Indian polity and differing views on these have also been supported by 'enough' people for them to "form the basis of an ideological divide in Indian politics." The conflict on the former is between the following two ideas – the state need not intervene in the society or redistribute wealth and, the state must work for the betterment of the society and redistribute wealth. In the case of the latter, the conflict has been between the supporters and opposers of affirmative action in the form of reservations and quotas for backward castes and minorities. The conventional right-wing parties want less statism and less recognition whereas those on the left and the centre want more of both, but to varying degrees.<sup>3</sup>

#### 2.3 Political Ideology and Public Expenditure

As is evident from the theoretical literature on political ideology, there has been much debate about the extent and manner in which it is reflected in policy. Across the globe, many empirical studies have been conducted to find out if ideological differences have an impact on public welfare in general and public expenditure in particular. Their findings, however, have been very diverse. Cameron (1978) finds that between 1960-75, Scandinavian countries with a higher proportion of leftist parties in government compared to Japan, Italy and France saw higher increases in the size

<sup>&</sup>lt;sup>3</sup> Chhibber and Verma (2018) use data from National Election Study surveys (1967, 1996, 2004 and 2009), Survey of Indian Youth (2007 and 2016) and Mood of the Nation Survey (2017 and 2018) to empirically prove these claims.

of the public sector in the economy, but this effect was barely significant. An empirical analysis of member countries of the European Union in the 1980s shows that left-wing governments were associated with higher growth of public spending as a percentage of GDP (De Haan and Sturm, 1994). Swank (1988) arrives at a similar conclusion in his analysis of 18 rich democracies across North America, Europe, Asia and Australia, but only for the period 1960-1973. From 1973-80, he finds that due to "deteriorating economic climate and a disintegrating policy consensus", the role of ideology in public spending was considerably muted. According to Lewis-Beck and Rice (1985), the ideological difference between the Democrats and Republicans in the United States of America regarding the role of the market and the government is much smaller compared to Europe. However, they still find that democratic governments were more likely to expand public sectors programs compared to their Republican counterparts for the period 1932-80. Blais, Blake and Dion (1993) look at 15 advanced economies over 28 years (1960-87). They find that public spending as a percentage of GDP is indeed affected by the ideology of the government in power, with the left spending more than the right. The effect, however, is small and takes time to result in any substantial change. Pettersson-Lidbom (2008) analyses data on 288 Swedish local governments over the period 1974-94 and finds that as a percentage of income, left-wing governments spend more than 2 percentage points higher than right-wing ones.

Sturm (2001) extends the analysis to under-developed countries and uses data on 123 countries for the years 1970-98. He focuses on government capital spending and uses several 'structural', 'economic' and 'politico-institutional' independent variables to explain the former's determinants. One of the politico-institutional variables used is political ideology. Sturm argues that this is expected to have an impact on public capital spending not only because of the usual association of left-wing governments with higher public spending but because the ideology may affect the 'type' of public expenditure. He hypothesises that right-wing parties spend more on defence and the leftwing ones spend more on social welfare. <sup>4</sup> The empirical analysis, however, shows that ideology as well as other politico-institutional variables do not have a significant impact on capital spending in under-developed economies. Many other studies have also found no significant relationship between ideology and public expenditure in advanced economies with a democracy (Schmidt, 1982; Henrekson and Lybeck, 1988; and Verma, 2002).

In the context of India, a very recent work is by Banerjee, Gethin and Piketty (2019). They provide a fascinating insight into the relationship between social spending<sup>5</sup> and political affiliation of parties and analyse data on social expenditure (as a percentage of total developmental expenditure) incurred by states between 2003-18. Their findings reveal that social spending is strongly and negatively correlated with the vote share of right-wing parties. However, on controlling for state fixed effects, this correlation ceases to exist. The paper interprets this as an absence of political conflict in the domain of delivery of public goods in India, compared to strong political cleavages with respect to caste and religious identities.

#### 2.4 Members of Parliament Local Area Development Scheme (MPLADS)

The MPLAD Scheme in India was introduced in 1993 as a constituency development fund to enable members of parliament (MPs) from both houses of the parliament to enhance the quality of public goods provision in their constituencies. In the initial years, the allocation was Rs. 5 lakh per annum for each MP, which was increased to Rs. 2 crores per annum in 1998-99 and eventually to

<sup>&</sup>lt;sup>4</sup> Therefore, even if the two ideologies behave differently, it may not show up in an analysis of total public expenditure.

<sup>&</sup>lt;sup>5</sup> This includes revenue and capital expenditure on education, health, housing, sanitation, water, welfare of SCs, STs and OBCs, social security and labour welfare.

Rs. 5 crores per annum from 2011-12.<sup>6</sup> Under this scheme, MPs can recommend certain durable public works based on their assessment of their constituencies' requirements.<sup>7</sup> Their recommendations are subject to sanctions by the district authorities which further identify implementing agencies for the completion of the project.

While there have been many controversies around the scheme ranging from the constitutional question of separation of powers to corruption and under-utilisation of funds, there are other pertinent political and economic issues that have been looked at in the context of MPLADS in India. Keefer and Khemani (2009) use the MPLADS design and data from 1999-2004 to understand political incentives of legislators and the relationship between politics and economic development. They find, for the first time, that in constituencies with a higher degree of voter attachment to parties, MPLADS fund utilisation is significantly lower. Das and Pal (2010) find evidence to support the hypothesis that there is a political business cycle in the utilisation of these funds. Their sample consists of 217 Lok Sabha constituencies over the first half of 14<sup>th</sup> Lok Sabha (May 2005 - October 2006). They find that younger MPs spend more, and their political ideology also has a significant effect, with left-wing MPS spending more than both their centrist and rightwing counterparts. More awareness and better law and order are also found to positively affect MPLADS fund utilisation. Blair (2017) extends the analysis by Das and Pal (2010) to the 15<sup>th</sup> Lok Sabha and concludes that a political business cycle existed even for the period 2009-14, however, the age of the MP was not a significant determinant.

<sup>&</sup>lt;sup>6</sup> MPLADS was recently suspended by the central government for two years in the wake of COVID-19.

<sup>&</sup>lt;sup>7</sup> List of prohibited works is mentioned in "Guidelines on MPLADS". This can be found on https://www.mplads.gov.in/mplads/En/2010-mplads-guidelines.aspx

#### **3. Data and Empirical Strategy**

#### **3.1 Choice of Variables**

My analysis of the causal effect of a legislator's political ideology on public goods expenditure requires the outcome variable of interest to have two characteristics. The first and obvious one is that it should represent the actual expenditure incurred on the creation of public goods. Secondly, it should be an indicator of the effort put in by an individual legislator, along with their intent. If this is not the case, any individual attribute, including their political ideology, would be irrelevant. That is to say that if the act of incurring expenditure did not entail effort on the part of the legislator, it would be very plausible to assume that they would simply spend the entire amount at their disposal since these are government funds.

The first requirement rules out the use of the amount recommended for MPLADS works by a legislator as the dependent variable, even though it best satisfies the second criterion. This is because the amount that a legislator recommends is subject to sanction by the district authorities. The sanctioned amount and eventually, the utilised amount is further subject to availability of funds, which may be different from the amount recommended (in fact, on an average, the former is lower than the latter<sup>8</sup>). My preferred outcome is the final expenditure incurred on public goods under MPLADS. Given the aforementioned modalities, it may seem that it is not quite representative of a legislator's effort. However, as argued by Keefer and Khemani (2009), there are multiple reasons why this is not true. They note that any MPLADS spending is initiated by the legislator alone, who must chalk out detailed assessments of projects because of size limits imposed by the law. They also need to keep implementation guidelines in mind and coordinate

<sup>&</sup>lt;sup>8</sup> Mean (amount recommended – amount utilised) = 3.22 cr. (15<sup>th</sup> LS), 3.89 (16<sup>th</sup> LS)

with district authorities. MPLADS works are also required to have a plaque with the name of the MP who has recommended it, along with details on its cost and completion. Thus, the MP can take credit for the work regardless of the party in power in the state. Another observation made by Keefer and Khemani is that MPLADS fund utilisation remained very low until it was publicised in the media around 1999, after which it saw a significant jump<sup>9</sup>. This implies that there was an increase in the political cost of non-utilisation- a higher probability of losing an election – which did influence the behaviour of MPs. If fund utilisation did not require any effort, publicity of its dismal state would not have affected it.

This analysis uses publicly available data on MPLADS works for members of the 15<sup>th</sup> (2009-14) and 16<sup>th</sup> (2014-19) Lok Sabha<sup>10</sup>. As mentioned previously, the annual entitlement for each Member of Parliament (MP) under this scheme was Rs. 2 crores from 1998-2011 and Rs. 5 crores from 2011. This is released in two equal instalments, subject to fulfilment of certain eligibility criteria<sup>11</sup>. This does not mean, however, that the maximum amount available to an MP for a 5-year term is capped at 19 crores (for 15<sup>th</sup> Lok Sabha) or Rs. 25 crores (for 16<sup>th</sup> Lok Sabha). They are permitted to utilise the interest accrued on released funds as well the unspent balance of the previous MP<sup>12</sup>. Thus, while there is a reasonable degree of comparability in the money each legislator has at their disposal, it is not equal (Table 1). Moreover, due to an increase in the annual allotment from time to time, the total entitlement and hence the total funds released by Government of India (GoI) also vary across different Lok Sabha sessions. It is, therefore, imperative to look at the expenditure

<sup>&</sup>lt;sup>9</sup> Between 1993-99, only 36% of available funds were disbursed for the average and median constituencies, which increased to 85% by 2003 (Keefer and Khemani, 2009)

<sup>&</sup>lt;sup>10</sup>Data on previous Lok Sabha sessions are either unavailable or not in a usable form. It can be found on <u>https://www.mplads.gov.in/MPLADS/AuthenticatedPages/Reports/Citizen/rptExpenditureDetailsofStatewise.aspx</u> This also includes MPs elected in bye-elections

<sup>&</sup>lt;sup>11</sup> Paragraph 4.1 - 4.3 of MPLADS guidelines. See A.1.

<sup>&</sup>lt;sup>12</sup> Paragraph 4.4., 4.7 and 4.16 of MPLADS guidelines. See A.1. It must be noted that the unspent balance of the previous MP cannot be very high as funds are not sanctioned if the unspent balance is more than Rs. 2.5 cr.

incurred as a percentage. This would also take inflation into account, apart from the issues mentioned above. There are, then, two candidates for the denominator – total funds released by GoI under MPLADS and the total amount eventually available including interest and previous MP's balance. The former is used very commonly in the literature on MPLADS, as also in news publications. However, doing so would ignore the fact that the money at the MP's disposal is often higher than the released amount due to reasons mentioned above<sup>13</sup>, leading to overestimation of fund utilisation. This analysis, therefore, uses the final expenditure incurred as a percentage of the total amount available as the outcome variable of interest (henceforth termed "*utilisation*")<sup>14</sup>. I will also present results with released funds as the denominator because of its prevalence in the literature ("*utilisation over released*").

The independent variable of interest in this analysis is the political ideology of an MP ("*ideology*"), which I assume to be the same as that of the political party to which they belong. Given the sheer number of political parties in India and the absence of a clear demarcation with respect to ideology as in the case of several Western democracies, classification of political parties is rather challenging and tricky. Banerjee, Gethin and Piketty (2019) get around this problem by first classifying the two main national parties – Indian National Congress (INC) and Bharatiya Janata Party (BJP) into "Centre" and "Right" respectively. This is then expanded to include parties which have frequently allied with these two parties over the years. Opinions of political scientists, economists, journalists and politicians on the classification of 18 major parties are also presented, and they arrive at a final classification of 155 local and national parties into four categories –

<sup>&</sup>lt;sup>13</sup> 15<sup>th</sup> LS: Mean (amount available – fund released) = 1.12 cr., S.D. = 0.86 cr.

<sup>16&</sup>lt;sup>th</sup> LS: Mean (amount available – fund released) = 1.62 cr., S.D. = 1.48 cr.

<sup>&</sup>lt;sup>14</sup> By definition, the value of utilisation cannot be more than 100. However, there are a few observations which have such a value. I exclude them from my analysis.

"Left", "Right", "Centre" and "Other" using a combination of their own analysis of the literature and the opinions of experts. This is the classification I use for my analysis (Appendix A.2).<sup>15</sup>

Table 1: Summary Statistics of MPLADS variables. 15th and 16th Lok Sabha Sessions are shown separately because of a change in the annual entitlement in 2011. Amount in Rs. Crores.

Variable	Obs		Mean		Std. De	Std. Dev.		Min		Max	
	15 <sup>th</sup>	16 <sup>th</sup>									
	L.S.										
Fund	545	569	18.84	21.01	1.46	4.84	7	2.5	23	30	
released											
Amount	545	569	19.97	22.63	1.69	5.08	7.96	2.5	31	32.79	
available											
Amount	545	569	22.43	27.08	11.55	8.97	7.95	0	244.41	71.42	
recommen											
-ded											
Expenditur	545	569	18.98	19.85	2.38	5.38	7.49	0	31	33.33	
-e incurred											
Unspent	545	569	.98	2.78	1.50	2.07	-2.5	-3.39	8.3	22.15	
balance											
Utilisation	140	333	93.48	86.48	8.17	11.14	57.22	0	101.03	102.21	
by Right											
Wing MPs											

<sup>&</sup>lt;sup>15</sup> Banerjee, Gethin and Piketty's classification does not include a few political parties, which I have added to their list and have classified based on the contents of their paper, and when inapplicable, as "other".

Utilisation	397	227	95.46	86.36	7.56	16.61	65.46	0	112.88	119.18
by Left										
Wing MPs										

#### **3.2 Empirical Strategy**

To begin with, one could analyse the difference in means of the outcome variable across the above groups. This would entail a simple linear regression with *utilisation* as the dependent variable and *ideology* as the dummy independent variable. While this gives a preliminary insight into the broad picture, such an analysis is simplistic and in fact problematic if used to establish causality. The difference in means does not estimate the causal effect of *ideology* on *utilisation* as it does not control for other factors that may also influence the latter. For such a difference in means to be causal, it is necessary that the two groups are the same in all aspects other than the independent variable. It is, therefore, imperative to control for such variables that possibly affect *utilisation*.

One way to achieve this is the use of regression discontinuity design (RDD). This method exploits an inherent discontinuity in the election mechanism to estimate the desired causal effect (Thistlethwaite and Campbell, 1960). The Lok Sabha election in India follows the first-past-thepost system wherein the candidate with the highest number of votes wins the constituency, even if they do not get a 'majority'.

Consider the following variable for constituency i for election year t:

$$margin_{it} = \{v_{it}(r) - v_{it}(c,l)\} * 100 / v_{it}(tot)$$

where,  $v_{it}(r)$  = highest number of votes received by a 'right' candidate

 $v_{it}(c,l) =$  highest number of votes received by a 'centre' or a 'left' candidate and,

 $v_{it}(tot) = total number of valid votes polled$ 

This depicts the margin by which a 'right' candidate wins or loses against a 'left' or a 'centre' candidate.<sup>16</sup> The value of this variable (called the 'running/forcing variable' in RDD literature) is greater than 0 when the winning candidate – the elected MP from the constituency - belongs to a 'right' party and less than 0 when they belong to a 'centre' or 'left' party. There is, thus, a 'sharp' discontinuity in the assignment of a value to the *ideology* dummy variable at 0 (the 'point of discontinuity'). If ideology = 1 for a 'right' candidate and 0 for a 'left' or 'centre' candidate,

 $margin_{it} < 0 \implies ideology = 0$ 

$$margin_{it} > 0 \implies ideology = 1$$

The idea behind sharp regression discontinuity design is that close to the point of discontinuity, the units are similar in all aspects other than the 'treatment' received, which in my analysis is the political ideology of the MP. In these close contests between a 'right' candidate and a 'left' or 'centre' candidate, it is as if political ideology is randomly assigned. This allows us to estimate its causal impact on the outcome variable without having to explicitly control for several variables that might affect the latter.

<sup>&</sup>lt;sup>16</sup> For the purpose of my analysis, the "other" category mentioned previously is not relevant. I, therefore, rule out constituencies where the winning candidate belongs to this category.

#### **3.2.1 Specification**

$$Utilisation_{it} = \alpha + \beta_0 * ideology_{it} + \beta_1 * f(margin_{it}) + \varepsilon_{it}$$

The earlier applications of regression discontinuity design assumed that the underlying relationship between the outcome and the running variable is linear and used the above specification with f(margin) = margin for the entire sample. The OLS estimator of  $\beta_0$ , in that case, is the desired causal impact (Lee and Lemieux, 2010). However, more recent literature argues for a 'local' linear or quadratic non-parametric (approximation) method wherein only units close to the point of discontinuity are taken to approximate the regression function within that range (Hahn, Todd, and van der Klaauw, 2001; Imbens and Lemieux, 2008; Athey and Imbens, 2017; Gelman and Imbens, 2019). The 'closeness' is defined in terms of a 'bandwidth' around the cutoff. Imbens and Kalyanaraman (2012) give an algorithm based on which data-driven optimal bandwidth ("IK" bandwidth) can be derived. They also suggest the use of multiple bandwidths to check for sensitivity of the estimates to bandwidth selection. Calonico, Cattaneo and Titiunik (2014) also propose an optimal and consistent data-driven bandwidth ("CCT" bandwidth). Calonico, Cattaneo, Farrell and Titiunik (2015) have developed a methodology and a corresponding Stata package rdrobust to estimate and analyse the causal effect. It uses a local polynomial approach which is based on the continuity of the average potential outcomes as a function of the running variable. It entails choosing a bandwidth around the cutoff and a kernel function which assigns weights to observations within such bandwidth and then fitting a polynomial to approximate the regression functions above and below the cutoff separately. I use the local linear specification with a triangular kernel in *rdrobust*, which is the recommended implementation by the developers due to its desirable combination of low variability of the estimator and high reliability near the point of discontinuity. I run this for several bandwidths - IK, CCT, IK/2, IK\*2, CCT/2, CCT\*2. Data on

votes received by candidates and the total number of valid votes for the 15<sup>th</sup> and 16<sup>th</sup> Lok Sabha elections are taken from Trivedi Center for Political Data (Lokdhaba).

#### **3.2.2 Validity of Empirical Strategy**

#### 3.2.2.1. Continuity of Density of the Running Variable

For the RDD estimation to be valid, the MP must not be able to 'precisely manipulate' the assignment of the treatment (Lee and Lemieux, 2010). This is equivalent to the continuity of the density of the running variable at the cutoff and can be tested using the method laid out in Bugni and Canay (2020). I use their Stata package *rdcont* and find that the null hypothesis of the density of the running variable being continuous at the cutoff is not rejected (Table 2).

Table 2: RDD non-randomised approximate sign test for continuity of running variable margin at cutoff c = 0. Implemented using Stata package rdcont.

	Left of c	Right of c
Number of observations	493	465
Effective number of observations	36	31
Effective neighbourhood	-1.771	1.784
p-value	0.625	

#### 3.2.2.2. Correlation between Pre-determined Covariates and Treatment

As mentioned previously, the two categories of MPs are similar in all aspects (pre-determined covariates) other than the treatment in a valid RDD. Therefore, it is imperative to check whether pre-determined covariates are correlated with the treatment received. If they are discontinuous at

the cutoff, the design would be falsified (Cattaneo, Idrobo and Titiunik, 2019). To test this, I apply the same empirical strategy specified for the dependent variable *utilisation* to candidate-specific characteristics like their category (Scheduled Caste, Scheduled Tribe and General), sex, number of criminal cases, educational qualification (graduate and non-graduate) and wealth. I also use it on a constituency level pre-determined covariate – the voter turnout. Thus, the *rdrobust* package is implemented for each of these covariates, using them as the outcome variable. All of these are regressions are also run for several bandwidths. If the RDD estimator for a variable is significant, it would mean that the treatment is correlated with it. Data on the category and sex of MPs and voter turnout of a constituency are taken from Lokdhaba. For educational qualification, number of criminal cases and wealth, I use data from MyNeta which compiles self-declared information from candidates' election affidavits.<sup>17</sup> The results show that the aforementioned pre-determined covariates are not discontinuous at the cutoff since all coefficients (except the variable sex under IK bandwidth) are insignificant (Table 4). The RDD specification, therefore, is valid.

Table 3: Summary statistics of variables used in the RDD. Excludes observations with utilisation greater than 100 %.

Variable	Obs.	Mean	Std. Dev.	Min	Max
Utilisation (%)	1100	90.46901	11.83799	0	100
Utilisation over released	1100	96.2791	14.30343	0	153.47
(0/)					
(%)					
Margin (%)	958	-3.905044	23.45375	-68.40882	70.09969

<sup>&</sup>lt;sup>17</sup> See http://www.myneta.info/

Number of criminal cases	1067	1.140581	3.087667	0	46
Wealth (Rs. million)	1066	93.55189	332.02	-66.26968	6628.247
Sex (Male = 1, 0 otherwise)	1090	.8844037	.319887	0	1
Category (General = 1, 0 otherwise)	1083	.7451524	.4359769	0	1
Education (Graduate or above = 1, 0 otherwise)	1051	.7668887	.4230138	0	1
Voter turnout (%)	1096	63.08856	13.22767	0	90.32

Table 4: RDD robust estimators for pre-determined variables obtained using the Stata package rdrobust. The figures in parentheses are the robust p-values. Excludes observations with utilisation greater than 100%. \*\* p-value < 0.05

Variable	ССТ	CCT/2	CCT*2	IK	IK/2	IK*2
Category	.1105	.19857	.1002	.10469	.19813	.10032
	(0.260)	(0.246)	(0.267)	(0.270)	(0.248)	(0.267)
Sex	00333	14637	00882	384**	13936	.0091
	(0.954)	(0.166)	(0.870)	(0.033)	(0.119)	(0.851)
Number of Criminal Cases	.48779	47554	.5432	12477	43253	.54559
	(0.275)	(0.432)	(0.204)	(0.801)	(0.465)	(0.201)

Education	09077	15328	07554	19647	12183	07709
	(0.335)	(0.376)	(0.370)	(0.346)	(0.384)	(0.283)
Wealth	-37.905	-52.848	-40.559	-61.735	-54.679	-39.802
	(0.488)	(0.448)	(0.459)	(0.379)	(0.464)	(0.455)
Voter turnout	.15459	5.5791	1063	9.0221	1.2368	1.1807
	(0.948)	(0.166)	(0.961)	(0.242)	(0.668)	(0.524)

#### 4. Results

The results of the OLS regression of *utilisation* and *utilisation over released* on the *ideology* dummy variable are presented in Tables 5(a) and 5(b). 5(a) includes all MPs for whom *ideology* can be defined based on the classification in Appendix A.2. whereas 5(b) only includes constituencies in which there is either a right-wing versus centre or right-wing versus left-wing contest. The latter is presented because it does not include MPs who would not have a corresponding value of *margin* and hence would not be a part of the RD analysis. These results show that for the 15<sup>th</sup> and 16<sup>th</sup> Lok Sabha sessions, the difference between the right-wing and non-right-wing MPs for both *utilisation* and *utilisation over released* is negative and significant even at 1% level of significance (p-values are almost 0). On average, MPs belonging to right-wing political parties spend 3 - 3.5 percentage points lesser on public goods than their left-wing and centrist counterparts.

However, as mentioned previously, this significant difference does not imply that it is the political ideology of the MP that is the sole, or even one of many factors behind such an observation. It is the results of the regression discontinuity design that would help us understand and isolate the intended causal effect. To this end, I first use the *rdplot* package to visualise the relationship between the running variable *margin* and dependent variable *utilisation* across two categories of the independent variable *ideology*. Such a plot smoothens the raw data and fits a polynomial for the two categories separately. It also depicts binned means to avoid loss of information on the variability of data resulting from the process of smoothening (Cattaneo, Idrobo and Titiunik, 2019). The rdplots for *utilisation* and *utilisation over released* are presented in Figures 1 and 2 respectively. We see that at the point of discontinuity or the cutoff, which is where *margin* is zero,

the polynomial fit (orders 1,2,3 and 4) of both *utilisation* and *utilisation over released* to the right of the cutoff is higher than that on the left. Since being to the right of the cutoff of zero, i.e. a positive *margin*, implies that the MP is right-wing, this plot indicates that for values of margin close to zero, it is the right-wing MPs that spend a higher proportion of MPLADS funds than the non-right-wing ones. This difference is, therefore, of the opposite sign compared to the difference in average utilisation of all MPs given in table 5. The magnitude of this difference also varies with the order of the global polynomial. The sample average within evenly spaced bins based on mimicking the variance of raw data shows that the lower order polynomials, however, underfit the raw data for both outcome variables. Moreover, the third and fourth order global polynomial fits show an interesting relationship between the running and the outcome variables, which I shall discuss towards the end of this paper.

Table 5a and 5b: Results of OLS regression of the specified outcome variables on ideology dummy for 15th and 16th Lok Sabha. Both exclude observations with a value of utilisation greater than 100%. Figures in parentheses are standard errors. \*\*\* p-value<0.01

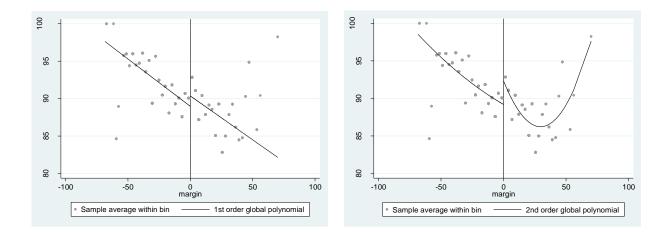
Outcome variable	Coefficient of	95% confidence	Observations
	ideology	interval	
Percentage utilisation of	-3.499508***	[-4.915006, -2.084009]	1083
available funds (utilisation)	(.7213978)		
Percentage utilisation of	-3.623289***	[-5.332269, -1.91431]	1083
funds released by GoI	(.8709681)		
(utilisation over released)			

a) Includes all MPs whose ideology can be classified into R, C or L based on Appendix A.2.

b) Excludes MPs from constituencies where there is no R versus C or R versus L election, i.e. where margin as previously defined cannot be calculated.

Outcome variable	Coefficient of	95% confidence	Observations
	ideology	interval	
Percentage utilisation of	-3.209524***	[-4.65128, -1.767769]	958
available funds (utilisation)	(.7346718)		
Percentage utilisation of	-3.452461***	[-5.223994, -1.680928]	958
funds released by GoI	(.9027156)		
(utilisation over released)			

Figure 1: RD effect of ideology on utilisation. Implemented using Stata package rdplot



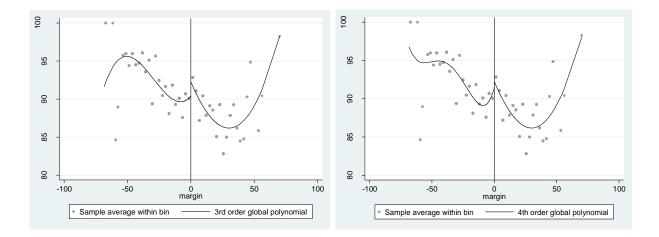
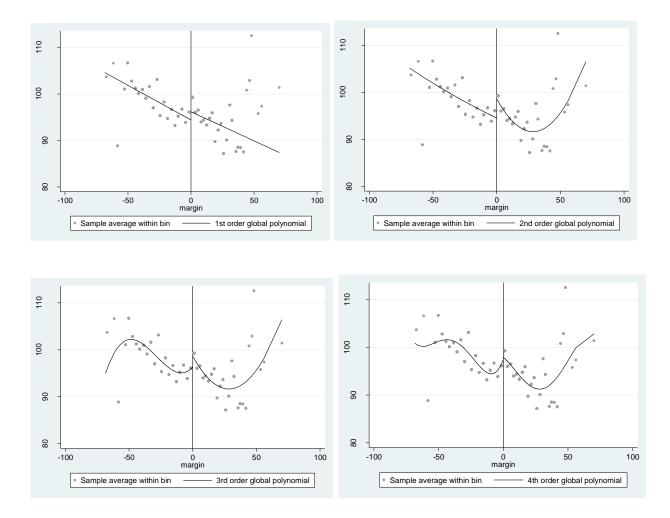


Figure 2: RD effect of ideology on utilisation over released. Implemented using Stata package rdplot



While visualisation of the data gives us a sense of the underlying relationship between *margin* and *utilisation*, it is imperative to quantify the treatment effect and make valid inferences about the same. The Stata package *rdrobust* developed by Cattaneo, Idrobo and Titiunik (2015), as explained previously, achieves this objective by first calculating a data-driven bandwidth (CCT) that minimises the mean squared error (MSE) of the local polynomial point estimator for a specified polynomial order and kernel. This balances the 'bias-variance trade-off' resulting from the fact that a smaller bandwidth while reducing the possibility of misspecification, generates more variance due to fewer number of observations. *Rdrobust* also allows for the use of other data-driven optimal bandwidths like the Imbens and Kalyanaraman (IK) bandwidth mentioned before. Based on the choice of bandwidth, a consistent RD point estimator is arrived at using the standard OLS methodology ("conventional coefficient").

However, since this estimation technique assumes that there is no misspecification, RD method being intrinsically non-parametric would not give valid inferences. The misspecification, therefore, needs to be taken into account while constructing the confidence intervals. The *rdrobust* package does this by applying bias correction and robust bias correction methods, both of which estimate and then remove the bias from the estimator and the latter further incorporates the bias in the variance of the estimator. Therefore, the estimate of the treatment effect for both these methods ("bias-corrected coefficient" and "robust coefficient") is the same, but they differ in the associated variance and therefore their t-statistic and p-value. Between these, Cattaneo, Idrobo and Titiunik (2019) suggest the use of robust coefficient since it can be used for both valid estimation as well as inference using the same bandwidth. Table 6(a) shows the value of the estimated causal effect of *ideology* on *utilisation* for a local linear regression with a triangular kernel implemented using *rdrobust*. This is estimated for six different bandwidths – CCT, CCT/2, CCT\*2, IK, IK/2, IK\*2.

Both conventional, as well as robust coefficients, are shown along with their p-values, the value of the bandwidth and the resulting effective number of observations. It can be seen that the conventional coefficients are positive for all bandwidths, and the robust coefficients are positive for all but two bandwidths. This is in line with the observation from the RD plot that the rightwing MPs spend more than non-right-wing MPs for close elections, and the numerical value of this difference lies between 1% to 2%. However, these coefficients have high p-values and none of them is statistically significant even at the 10% level of significance. Table 6(b) shows that the observation is similar for the outcome variable *utilisation over released*, where again the coefficients are positive but statistically insignificant.

Table 6a and 6b: RD effect of political ideology on (a) MPLADS expenditure incurred as a percentage of the amount available (utilisation) and (b) MPLADS expenditure incurred as a percentage of funds released by Government of India (utilisation over released). Running variable is margin by which a 'right' candidate wins or loses to a 'centre' or 'left' candidate. The coefficient is an estimate of the causal effect using a local linear regression with triangular kernel. Excludes observations with a value of *utilisation* greater than 100%. Figures in parentheses are p-values.

	ССТ	CCT/2	CCT*2	IK	IK/2	IK*2
Conventional	1.7206	1.1989	1.9492	1.6709	1.5174	2.008
coefficient	(0.352)	(0.606)	(0.193)	(0.342)	(0.493)	(0.161)
Robust	1.7414	-1.7721	1.4299	1.3299	92564	1.6264
coefficient	(0.415)	(0.580)	(0.469)	(0.580)	(0.758)	(0.392)
Bandwidth	15.886	7.943	31.772	18.182	9.091	36.364

(a) Outcome variable – *utilisation* 

Effective	489	275	763	540	313	807
obs.						
Total obs.	958	958	958	958	958	958

(b) Outcome variable – *utilisation over released* 

	ССТ	CCT/2	CCT*2	IK	IK/2	IK*2
Conventional	2.0329	1.2016	2.3744	1.7846	1.6847	2.6732
coefficient	(0.395)	(0.707)	(0.206)	(0.411)	(0.554)	(0.122)
Robust	2.0447	-1.2587	1.2889	2.1051	.01758	1.7942
coefficient	(0.463)	(0.779)	(0.613)	(0.477)	(0.997)	(0.443)
Bandwidth	15.027	7.5135	30.054	19.289	9.6445	38.578
Effective	470	258	737	558	327	833
obs.						
Total obs.	958	958	958	958	958	958

The results from the RD regression, therefore, show us that there is no causal effect of the political ideology of a member of Lok Sabha on their utilisation of funds under MPLADS for the period 2009-2019. Even though on an average, non-right-wing Lok Sabha MPs spend more of these funds compared to right-wing ones, it is not their political affiliation that is resulting in such an effect. This corroborates the arguments made by Suri (2004, 2013), Yadav and Palshikar (2006), Kumar (2008), Nooruddin (2010), Chhibber and Verma (2018) and Banerjee, Gethin and Piketty (2019) that ideological differences in India are not seen in the economic dimension and the conventional

"left-right" distinction made in the context of the West does not apply to India. However, it may not be entirely correct to claim that ideology does not affect expenditure on public goods. As hypothesised by Sturm (2001), it is possible that right-wing legislators spend less on social welfare only in comparison to public goods like defence and police. Since MPLADS, by law, restricts MPs to spend only on social welfare with no option to spend on defence etc., MPs across ideologies might not behave very differently. Moreover, the level of overall expenditure over five years might mask important differences in the composition of such spending, both in terms of the timing of expenditure and the projects on which they spend on. An analysis of such differences would give us further insight into the motivations behind a legislator's effort under MPLADS.

#### **5.** Further research

A careful look at the RD plots presented earlier (Figures 1 and 2) may help in understanding the variation in MPLADS fund utilisation and if it differs across political ideologies. The third and fourth-order polynomial fits show that the relationship between *margin* and MPLADS fund utilisation is U-shaped for right-wing Lok Sabha MPs. As the absolute value of *margin* increases, MPs' *utilisation* initially decreases from over 90% to slightly above 85%. The minimum is attained at values of *margin* around 20-25%, after which it increases and reaches a value that is higher than that for lower *margins*. A comparison with non-right-wing MPs shows that the shape of the two graphs differs slightly (for higher *margins*), and both minimum and maximum values for right-wing MPs are lower than the others. Moreover, the minimum for non-right-wing MPs is attained for a much lower absolute value of *margin*, close to 10%. The curve on the left-hand side is, for most values of *margin*, 'above' the one on the right-hand side. This is expected as the average utilisation is indeed higher for non-right-wing MPs, as shown earlier.

While these plots do offer some useful insights, the interpretation of *margin* as defined for the RD analysis in the context of political objectives of MPs may not be as relevant. This is because it measures the victory margin only against a candidate whose value of *ideology* dummy is different from theirs. That is, a very high *margin* is not necessarily associated with a huge victory and may occur because relatively closer competitors had the same *ideology* dummy but belonged to different parties with the same (or in some cases, different) political affiliations. For instance, if the winner is a centrist, the runner's up is left-wing and the candidate with the third highest votes is right-wing, the variable *margin* would be the difference in vote shares of the winner and the second runner's up instead of the first runner's up.

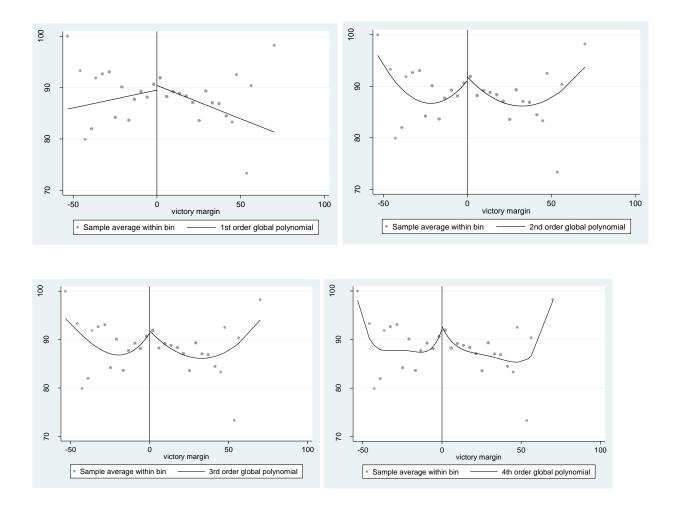
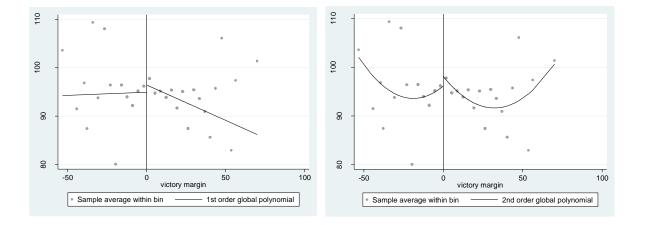
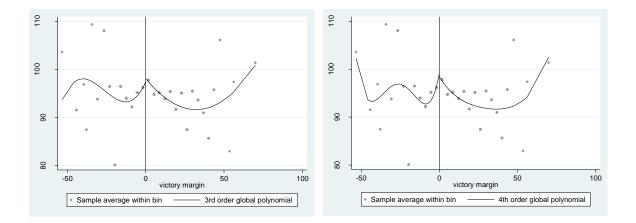


Figure 3: RD plot of utilisation against victory margin. Implemented using Stata package rdplot

Figure 4: RD plot of utilisation over released against victory margin. Implemented using Stata package rdplot





To better analyse and interpret the relationship between vote shares and MPLADS fund utilisation, data points for which the value of *margin* is *not* equal to the difference in vote shares of the winner and the first runner's up can be excluded. For the remaining observations, then, the value of *margin* is the same as their *victory margin* in the election. As an exploratory measure, I present the RD plots for *utilisation* and *utilisation over released* against the *victory margin* in Figures 3 and 4. The first-order polynomial fit for *utilisation* seems to underfit the raw data with many data points far off the line. The higher-order polynomials depict a U-shaped curve on both sides of the cutoff of zero. It would be interesting to explore why MPs who have won against their closest competitors with either very big or very small margins tend to spend a higher proportion of their MPLADS funds on public works, and whether such an effect is statistically significant. Moreover, the difference between the graphs for *utilisation* and *utilisation over released* could be examined to find out whether the unutilised balance of previous MPs and the interest accrued on funds have an effect on the spending behaviour of incumbent MPs.

## 6. Conclusion

In this study, we ask whether elected members of the 15<sup>th</sup> and 16<sup>th</sup> Lok Sabha utilise their Members of Parliament Local Area Development Scheme funds differently due to their political ideology. We find that on average, right-wing members spend less than non-right-wing members by more than 3 percentage points. Results of the regression discontinuity analysis, however, show that the estimated causal effect of ideology on fund utilisation is not only statistically insignificant but has a sign opposite to the aforementioned difference of means. This validates the widely held belief that political ideology in India cannot be classified into 'left' and 'right' along the economic dimension. It has been argued in the literature that the distinction between political parties arises not because of their role in the economy but in the society – as supporters or opponents of affirmative action and reformation of social structure, and "the big political fights seem to be about caste and religious identity" (Banerjee, Gethin and Piketty, 2019). The results of this study are consistent with this theory.

#### References

Athey, S., & Imbens, G. W. (2017). The state of applied econometrics: Causality and policy evaluation. *Journal of Economic Perspectives*, *31*(2), 3-32.

Banerjee, A., Gethin, A., & Piketty, T. (2019). Growing cleavages in India? Evidence from the changing structure of electorates, 1962–2014. *World Inequality Lab working paper 2019, 5*.

Benoit, K., & Laver, M. (2006). Party policy in modern democracies. Routledge.

Bhogale S., Hangal S., Jensenius F.R., Kumar M., Narayan C., Nissa B. U., & Verniers G. (2019). TCPD Indian Elections Data v1, *Trivedi Centre for Political Data*, Ashoka University.

Blair, H. (2017). Constituency development funds in India. *Economic & Political Weekly*, 52(31),99.

Blais, A., Blake, D., & Dion, S. (1993). Do parties make a difference? Parties and the size of government in liberal democracies. *American Journal of Political Science*, 40-62.

Bugni, F. A., & Canay, I. A. (2020). Testing Continuity of a Density via g-order statistics in the Regression Discontinuity Design. *Journal of Econometrics*.

Cameron, D. R. (1978). The expansion of the public economy: A comparative analysis. *The American Political Science Review*, 1243-1261.

Calonico, S., Cattaneo, M. D., & Titiunik, R. (2014). Robust nonparametric confidence intervals for regression-discontinuity designs. *Econometrica*, 82(6), 2295-2326.

Calonico, S., Cattaneo, M. D., & Titiunik, R. (2015). rdrobust: An R Package for Robust Nonparametric Inference in Regression-Discontinuity Designs. *R J.*, 7(1), 38.

Cattaneo, M. D., Idrobo, N., & Titiunik, R. (2019). *A practical introduction to regression discontinuity designs: Foundations*. Cambridge University Press.

Chhibber, P. K., & Verma, R. (2018). *Ideology and identity: The changing party systems of India*. Oxford University Press.

Das, A. & Pal, R., (2010). A scrutiny of the MP-LADS in India: Who is it for? *Economic & Political Weekly*, 45(2), 63.

De Haan, J., & Sturm, J. E. (1994). Political and institutional determinants of fiscal policy in the European Community. *Public Choice*, *80*(1-2), 157-172.

DeSouza, P. R., & Sridharan E. (2006). "Introduction: The Evolution of Political Parties in India.", in *India's Political Parties*. Sage Publications, 15–34.

Downs, A. (1957). An economic theory of political action in a democracy. *Journal of Political Economy*, 65(2), 135-150.

Gelman, A., & Imbens, G. W. (2019). Why high-order polynomials should not be used in regression discontinuity designs. *Journal of Business & Economic Statistics*, *37*(3), 447-456.

Gerring, J. (1997). Ideology: A definitional analysis. *Political Research Quarterly*, 50(4), 957-994.

Hahn, J., Todd, P., & Van der Klaauw, W. (2001). Identification and estimation of treatment effects with a regression-discontinuity design. *Econometrica*, *69*(1), 201-209.

Henrekson, M., & Lybeck, J. A. (1988). Explaining the growth of government in Sweden: A disequilibrium approach. *Public Choice*, *57*(3), 213-232.

Imbens, G. W., & Kalyanaraman, K. (2012). Optimal bandwidth choice for the regression discontinuity estimator. *The Review of economic studies*, *79*(3), 933-959.

Imbens, G. W., & Lemieux, T. (2008). Regression discontinuity designs: A guide to practice. *Journal of econometrics*, *142*(2), 615-635.

Inglehart, R., & Klingemann, H. D. (1976). Party identification, ideological preference and the left-right dimension among Western mass publics. *Party identification and beyond*, 243-273.

Jost, J. T., Federico, C. M., & Napier, J. L. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual review of psychology*, *60*, 307-337.

Keefer, P., & Khemani, S. (2009). When do legislators pass on pork? The role of political parties in determining legislator effort. *American Political Science Review*, 99-112.

Kumar, A. (2008). Dissonance between economic reforms and democracy. *Economic and Political Weekly*, 54-60.

Lee, D. S., & Lemieux, T. (2010). Regression discontinuity designs in economics. *Journal of economic literature*, 48(2), 281-355.

Lewis-Beck, M. S., & Rice, T. W. (1985). Government growth in the United States. *The Journal* of *Politics*, 47(1), 2-30.

McLellan D. (1986). Ideology. University of Minnesota Press.

MPLADS Guidelines. (2010). Ministry of Statistics and Programme implementation, Government of India. <u>http://www.mplads.gov.in/mplads/En/2010-mplads-guidelines.aspx</u>

Nooruddin, I. (2010). *Coalition politics and economic development: Credibility and the strength of weak governments*. Cambridge University Press.

Palmer, N. D. (1967). India's fourth general election. Asian Survey, 7(5), 275-291.

Pettersson-Lidbom, P. (2008). Do parties matter for economic outcomes? A regressiondiscontinuity approach. *Journal of the European Economic Association*, 6(5), 1037-1056.

Rudolph, L. I., & Rudolph, S. H. (1987). *In pursuit of Lakshmi: The political economy of the Indian state*. University of Chicago Press.

Rudolph, L. I., & Rudolph, S. H. (2009). Centrist Logic of Indian Politics. *Economic and Political Weekly*, 69-70.

Thistlethwaite, D. L., & Campbell, D. T. (1960). Regression-discontinuity analysis: An alternative to the ex post facto experiment. *Journal of Educational Psychology*, *51*(6), 309.

Schmidt, M. G. (1982). The role of parties in shaping macroeconomic policy. *The impact of parties*, 97-176.

Sturm, J. E. (2001). *Determinants of public capital spending in less-developed countries*. Groningen: University of Groningen.

Suri, K. C. (2004). Democracy, economic reforms and election results in India. *Economic and Political Weekly*, 5404-5411.

Suri, K. C. (2013). Party system and party politics in India. Political science, 2, 209-252.

Swank, D. H. (1988). The political economy of government domestic expenditure in the affluent democracies, 1960-80. *American Journal of Political Science*, 1120-1150.

Verma, M. L. (2000). Do political parties matter to public policies? Evidence from select European Countries. *Sociological Bulletin*, *49*(2), 229-252.

Yadav, Y., & Palshikar, S. (2006). Party system and electoral politics in the Indian States, 1952-2002: From hegemony to convergence. *India's political parties*, *6*, 73-116.

### Appendix

#### A.1. MPLADS Guidelines for Lok Sabha MPs.

"4.1 The annual entitlement of Rs 5 crore shall be released, in two equal instalments of Rs 2.5 crore each, by Government of India directly to the District Authority of the Nodal District of the Member of Parliament concerned.

4.2 At the time of the constitution of Lok Sabha, and election of a Rajya Sabha Member, the first instalment of Rs. 2.5 crore shall be released to the District Authority without the documents stipulated under para 4.3 below. The subsequent instalments of the continuing Members of Rajya Sabha and Lok Sabha will be released as per eligibility criteria indicated in Paragraph 4.3.

4.3 The first installment of Rs. 2.5 crore at the time of constitution of Lok Sabha or election of Rajya Sabha Member will be released in the beginning of the financial year. In the remaining years, the first installment will be released in the beginning of the financial year subject to the condition that the second installment of the previous year was released for the MP concerned and also subject to furnishing of the provisional Utilization Certificate of previous year covering at least 80% of the expenditure of the first installment of the previous year. The second installment of the first installment of the previous year.

(i) the unsanctioned balance amount available in the account of the District Authority after taking into account the cost of all the work sanctioned is less than Rs.1 crore;

(ii) the unspent balance of fund of the MP Concerned is less than Rs. 2.5 crore; and

(iii) Utilization Certificate and Audit Certificate of the immediately concluded financial year ending 31st March have been furnished by District Authority (in format at Annexure-VIII & IX of the guidelines respectively.

The above stipulations will be calculated from the Monthly Progress Report for each sitting and former MP term-wise separately. The Monthly Progress Report is to be sent by the District Authorities in the format at Annexure-VI.

4.4 Funds Non-lapsable: Funds released to the District Authority by the Government of India are non-lapsable. Funds left in the district can be carried forward for utilization in the subsequent years. Further, the funds not released by the Government of India in a year will be carried forward for making releases in the subsequent years subject to the fulfillment of criteria stipulated in Paragraph 4.3.

4.7 In respect of elected Members of Lok Sabha, the balances of MPLADS funds left by the predecessor MP in a Lok Sabha constituency (funds not committed works of the predecessor MP) would be passed on to the successor MP from that constituency. (In case of fresh delimitation, separate orders will be issued).

4.16 The interest accrued on the funds released under the Scheme to the District Authority is to be used for permissible works recommended by the MP concerned. The interest accrued on the funds released under the Scheme to the Implementing agencies shall be calculated while arriving at the savings for each work. The savings for each work shall be refunded to the District Authority within 30 days of the completion of the work." (MPLADS Guidelines, 2010)

ADMK	Centre	All India Anna Dravida Munnetra Kazhagam
AIIC(T)	Centre	All India Indira Congress (Tiwari)
AINRC	Centre	All India N.R. Congress
AITC	Left	All India Trinamool Congress
BJD	Centre	Biju Janata Dal
DIC	Centre	Democratic Indira Congress
DRPP	Centre	Democratic Revolutionary Peoples Party
DMK	Centre	Dravida Munnetra Kazhagam
GRCP	Centre	Goa Rajiv Congress Party
GVP	Centre	Goa Vikas Party
HJCBL	Centre	Haryana Janhit Congress (BL)
HVP	Centre	Haryana Vikas Party
HVC	Centre	Himachal Vikas Congress
НАМ	Centre	Hindustani Awam Morcha
INC(I)	Centre	INC(I)
INC(U)	Centre	INC(U)

# A.2. Classification of political parties. Source: Banerjee, Gethin and Piketty (2019)

	Indian National Congress
Centre	Indian National Congress (Socialist)
Centre	Jammu and Kashmir Peoples Democratic Party
Centre	Janata Dal
Centre	Karnataka Congress
Centre	Kerala Congress
Centre	Lok Tantik Congress
Centre	Manipur Peoples Party
Centre	Manipur State Congress Party
Centre	National Congress Party
Centre	Orissa Jana Congress
Centre	People's Party of Punjab
Centre	Peoples Democratic Movement
Centre	Pondicherry Makkal Congress
Centre	Praja Rajyam Party
Centre	Sikkim Congress (Revolutionary)
Centre	Sikkim Janata Parishad
	Centre

SPC	Centre	Sikkim Prajatantra Congress
TRS	Centre	Telangana Rashtra Samithi
TJS	Centre	Tripura Upajati Juba Samiti
VHP	Centre	Vishal Haryana Party
YSRCP	Centre	YSR Congress Party
ADM	Right	Akali Dal master tara singh group
RRP	Right	Akhil Bharatiya Ram Rajya Parishad
GP	Right	All India Ganatantra Parishad
AIRJP	Right	All India Rashtriya Janata Party
AIUDF	Right	All India United Democratic Front
AC	Right	Arunachal Congress
AGP	Right	Asom Gana Parishad
JS	Right	Bharatiya Jana Sangh
BJP	Right	Bharatiya Janata Party
BJSH	Right	Bharatiya Janshakti Party
GPP	Right	Gujarat Parivartan Party
NCO	Right	INC (organisation)

INLD	Right	Indian National Lok Dal
PP	Right	Jammu Praja Parishad
JKP	Right	Jan Kranti Party
JVM	Right	Jharkhand Vikas Morcha (Prajatantrik)
KJP	Right	Karnataka Janata Paksha
KLP	Right	Krishikar Lok Party
MNS	Right	Maharashtra Navnirman Sena
NPP	Right	National People's Party
NPEP	Right	National People's Party
NDM	Right	Nationalist Democratic Movement
NAGP	Right	Natun Asom Gana Parishad
SAD	Right	Shiromani Akali Dal
SHS	Right	Shiv Sena
SWA	Right	Swatantra Party
TDP	Right	Telugu Desam Party
AAAP	Left	Aam Aadmi Party
AIFB	Left	All India Forward Bloc
АААР	Left	Aam Aadmi Party

AD	Left	Apna Dal
BSP	Left	Bahujan Samaj Party
BAC	Left	Bangla Congress
ВККР	Left	Bharatiya Kisan Kamgar Party
BBM	Left	Bharipa Bahujan Mahasangh
BPP	Left	Bihar People's Party
BOPF	Left	Bodoland People's Front
СРІ	Left	Communist Party of India
СРМ	Left	Communist Party of India (Marxist)
DNC	Left	Democratic National Conference
ISP	Left	Indian Socialist Party
LJP	Left	Lok Janshakti Party
MAG	Left	Maharashtrawadi Gomantak Party
MNC	Left	Manipur National Conference
MNF	Left	Mizo National Front
PWP	Left	Peasants and Workers Party of India
PF	Left	People's Front

PSP	Left	Praja Socialist Party
RJD	Left	Rashtriya Janata Dal
RLD	Left	Rashtriya Lok Dal
RLSP	Left	Rashtriya Lok Samta Party
REP	Left	Republican Party of India
RSP	Left	Revolutionary Socialist Party (India)
SP	Left	Samajwadi Party
SAP	Left	Samta Party
SOP	Left	Samyukta Socialist Party
SDF	Left	Sikkim Democratic Front
SKM	Left	Sikkim Krantikari Morcha
SUCI	Left	Socialist Unity C of India
ТМС	Left	Tamil Maanila Congress
TMC(M)	Left	Tamil Maanila Congress (Moopanar)
UKD	Left	Uttarakhand Kranti Dal
VCK	Left	Viduthalai Chiruthaigal Katchi
WBSP	Left	West Bengal Socialist Party

Other	AJSU Party
Other	Akali Das Sant Fateh Singh Group
Other	All Party Hill Leaders Conference
Other	Indian Union Muslim League
Other	Bharatiya Kranti Dal
Other	Bharatiya Lok Dal
Other	Congress for Democracy
Other	Desiya Murpokku Dravida Kazhagam
Other	Federal Party of Manipur
Other	Gomantak Lok Pox
Other	Gondwana Ganatantra Party
Other	Gorkha Janmukti Morcha
Other	Hill State People's Democratic Party
Other	Hindu Mahasabha
Other	Independents
Other	Indigenous Nationalist Party of Twipra
	Dther   Dther

Other	Indigenous People's Front of Tripura
Other	Jamaat-e-Islami
Other	Jammu & Kashmir National Conference
Other	Jammu and Kashmir National Panthers Party
Other	Jan Kranti Dal
Other	Janata Party
Other	Jharkhand Mukti Morcha
Other	Karnataka Rajya Raitha Sangha
Other	Khun Hynniewtrep National Awakening Movement
Other	Lok Rajya Party Himachal Pradesh
Other	Manipur Hills Union
Other	Marumalarchi Dravida Munnetra Kazhagam
Other	Meghalaya Democratic Party
Other	Mizoram People's Conference
Other	Muslim League
Other	Naga National Democratic Party
Other	Nagaland Nationalist Organisation
	Other

NPC	Other	Nagaland Peoples Conference
NPF	Other	Nagaland Peoples Front
NCN	Other	National Convention of Nagaland
NDPP	Other	National Democratic Progressive Party
РМК	Other	Pattali Makkal Katchi
PDF	Other	People's Democratic Front
PPA	Other	People's Party of Arunachal
РТС	Other	Plain Tribals Council of Assam
PDC	Other	Public Demands Implementation Convention
PT	Other	Puthiya Tamilagam
RIS	Other	Rising Sun Party
SHD	Other	Shoshit Dal
UDF	Other	United Democratic Front
UDP	Other	United Democratic Party (Meghalaya)
UFN	Other	United Front of Nagaland
UGS	Other	United Goan Superia Group
SGF	Other	United Goans Democratic Party

Other	United Goans Party
Other	Utkal Congress
Left	Janata Dal (Secular)
Left	Communist Party of India (Marxist-Leninist) Liberation
	Other Left