Are parties different?

An analysis of Italian municipal governments

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Abstract

I study the impact of having a right wing mayor in Italy over total as well as different categories of expenditure. This is done by first looking at all the parties right of the spectrum, and then restricting to those at the far right. The far right in this case is defined as those belonging to the party Lega Nord. To do so, I perform a regression discontinuity design and compare cities where the right barely won where cities where it barely lost against either the left or the center. Results show that there is no causal effect of having a right wing mayor on either variable of expenditure. However, differences do arise when considering only the far right. Far right mayors in Italy spend 37.9% less per capita than those from the left or center. This results appears to derive from less expenditure on education.

1 Introduction

Whether the party of people in government matters in terms of policy outcomes has been a long-standing question in political sciences. For one, Downs (1957) would claim that parties both at the left and right of the political spectrum will promise centralist policies in order to win elections. However, later models such as Alesina (1988) argue that parties actually care about which policies they implement and not just about winning. If such is the case, then which party wins will affect policy decisions. In this paper, I aim to analyze this issue in the context of Italian municipalities. The main question to be answered is, which is the causal impact of the political affiliation of Italian mayors? And, more specifically, what is the causal impact of having a right-wing mayor in Italy?

Empirical literature on this issue has been mixed. Bjørnskov and Potrafke (2013), using data for the US, implement first differences to measures of size of govenment. What they conclude is that Republican governors do reduce the size and scope of government with respect to Democratic ones. On the other hand, Reed (2006), again for the US, finds evidence in favor of Downs model for governors. Further, Potrafke (2011) concludes that the relationship between budget allocations and political ideology is week among OECD countries. Finally, Russo and Verzichelli (2016) using data for Italy find that cabinet ideology can lead to changes in government spending, but only if the governing parties are not too polarized.

In any case, the main obstacle to be tackled is that which party wins is endogenous. Consequently, simply comparing cities where different parties won will yield biased results.

But even those who have accounted for such problem using regression discontinuity designs (RDD) have still found confounding results. For one, Pettersson-Lidbom (2008) find a positive causal impact of having a left-wing mayor in Sweden. This amounts to

them spending 2% more per capita and employing 4% more workers compared to the right. On the other hand, Ferreira and Gyourko (2009), find no causal impact over expenditure per capita, crime and size of government at the city level for the US. However, a later work by Gerber and hopkins (2011) find that although total expenditure per capita was indeed the same under democratic mayors in the US, the share spent on public safety was lower in such cities. While Beland and Oloomi conclude the oposite: Democratic mayors spend more then Republicans on public safety, as well as education and health.

Using an RDD and data for Italian municipalities from 1999 to 2015, I seek to understand whether or not there are causal differences in expenditure between the right and the left or center. Italy's political environment constitutes a special setting in which to study this relationship.

Unlike the United States, for instance, in which there are just two big parties, Italy has an abundance of parties with different ideologies. Moreover, it is quite common, especially in cities, for candidates to run with local civic lists (*liste civiche*) instead of big parties. Said lists are usually very hard to classify within the typical political spectrum. Given that there are more than 8000 cities in Italy, this means that the percentage of clearly classifiable candidates need not be too high.

The analysis is done not only looking at total expenditure, but also at its different components. The idea being that, even if there are no differences in how much they spend, budget allocations could still differ. The empirical analysis shoes the following: Total expenditure per capita, as well as its components, appear to be the same regardless of whether the right won (and the center or left came in second) or it lost (and the center or left won). However, *causal* differences do appear when comparing the far right with the center or left. This is, when instead of using all right-wing mayors, I

exclude the center-right ones, a difference of 37.9% in expenditure per capita arises. Said difference seems to be mainly driven by less expenditure in education.

The reason behind deciding to study the case for the far right, is that nowadays the line between center-right, center and center-left is a bit blurred. Their ideologies do overlap and that could be the reason behind me finding that there is no causal impact of a right-wing mayor in Italy.

The far right races in this case will be defined as those in which the political party *Lega Nord* was either the winner or the runner-up. The choice of this party was mainly based on the years of analysis. As mentioned before, the data set starts in 1999. As expressed by Ignazi (2005), it was precisely during the mid and late 1900' that Lega Nord started to radicalize more and occupied the place previously held by the party *Alleanza Nazionale* as the right-extremist pasty in Italy. Further, while the manifiesto of the party *Forza Italia* could be classified as neoliberal, it has actually taken some centralist stands.

The rest of the paper is organized as follows: section 2 described the data to be used, section 3 explains the methodology , section 4 presents the main results, section 5 provides robustness checks, and finally section 6 concludes.

2 Data

For the analysis, I use administrative data from Italian municipalities collected from the official website from the Ministry of Interiors of Italy (*Ministero dell'Interno*). The data set is comprised of two parts: the data on elections and the data on expenditure.

For each election held on each municipality in Italy between the years 1999 and 2015, and each candidate that run for mayor, I have data on: their names, how many

votes they got and to which party and/or list they were associated to. From here I as able to get the names and percentage of votes from the winner and the runner-up. Further, I was able to classify them into one of the following four categories: right, left, center and local. The latter category corresponds to lists that are particular to a city and do not officially affiliate to either of the first three.

As mentioned before, classifying parties, but more so civic lists, in Italy is not a trivial task. Many are in fact impossible to classify since they just concern themselves with local issues. Hence, out of all of the elections held between the years in question, I was able to classify the political affiliation of the winner in 33.16% of the cases. As for the runner-up, I was able to classify his/her political affiliation in 26.3% of the cases.

With respect to the data related to economic outcomes, it spans the fiscal years 1999 through 2015 and consists of eight different variables. These are total expenditure per capita, as well as expenditure per capita in each of the following categories: education, culture, social programs, police, development, environmental, and administrative expenses.

Finally, I also have information related to population and some geographical characteristics: region, total extension of the city and urban extension of the city. These last variables will be used to prove balance among the cities in which the right barely won and those in which it barely lost.

Table 1 contains summary statistics of the variables, over the sample in which I will perform the analysis. This is, over the sample for which I was able to classify the political affiliation of both the winner and the runner-up.

Table 1: Descriptive Statistics

Outcome	Obs	mean	sd	min	max
North West	2,398	0.24	0.43	0	1
North East	2,398	0.18	0.38	0	1
South and Islands	2,398	0.38	0.48	0	1
Center	2,398	0.20	0.40	0	1
Population	2,313	23,692.2	85,604.1	90	2,645,236
Total expenditure per capita	2,198	6.88	0.75	4.48	11.1
Social expenditure per capita	2,220	4.24	1.00	-3.04	8.19
Ependiture per capita in education	2,177	4.12	1.02	-2.64	7.54
Ependiture per capita in police	1,039	-0.26	1.32	-6.97	3.79
Administrative expenditure per capita	1,669	4.20	1.32	-1.58	9.29
Cultural expenditure per capita	1,494	1.95	2.13	-5.09	7.93
Ependiture per capita in transport	2,188	4.78	1.07	-1.17	10.0
Environmental ependiture per capita	2,193	5.21	1.25	-0.41	11.0
Ependiture per capita in development	1,713	2.14	1.91	-6.08	8.88

The summary statistics are calculated only over the sub-sample over which both the winner and runner-up were classified.All expenditure variables are in logarithm form. North west, North east, South and Islands and Center are dummy variables for each of the macroregions of Italy

3 Methodology

Given the fact that which party wins is endogeneous, the ideal way to answer the question of interest would be to randomly assign the mayor of each city. This would make the party in power exogenous. Accordingly, we could then compare outcomes in cities that were assigned different parties and get the causal impact of political affiliations. However, this would be ethically dubious and completely unfeasible.

Nonetheless, an unbiased causal estimate can still be calculated by focusing on very close races. As expressed by Lee (2008), turn-out (and so the exact number of votes a candidate gets) can depend on variables outside his/her control. The weather on the day of the election, for instance, can affect peoples' decision to go vote. Hence, instead of comparing all of the cities where the right won with those in which it lost, I just compare those in which it won or lost by a very small margin. In so doing, we can evaluate whether or not there is a discontinuity at the zero margin of votes for the right. If there is not, we can claim that there is no causal impact over expenditure per

capita of the city of having a right-wing mayor.

In practical terms, this amounts to estimating the following equation for each outcome (Y):

$$Y_{c,t} = \alpha + \beta R_{c,t} + \theta_1 f(Margin_{c,t}) + \theta_2 R_{c,t} f(Margin_{c,t}) + \mu_t + \gamma_r + \epsilon_{c,t}$$

Where $Y_{c,t}$ represents the logarithm of the mean expenditure per capita (either total or in one of the categories mentioned before) in city c in the term that follows the election at time t. The year of the election is not taken into account as most elections occur late in the year. Neither is the last year the mayor is in office, since it could be biased if the mayor seeks re-election (however robustness checks are presented including them). $R_{c,t}$ is a dummy variable for whether the mayor who won in city c at time t is right-wing. $Margin_{c,t}$ corresponds to the difference between the percentage of votes of the winner and the runner-up when the right was either. $f(.)$ is a flexible polynomial, which I also interact with the dummy $R_{c,t}$ in order to allow for the trends with respect to $Margin_{c,t}$ to be different for cases in which the right won or lost. Finally, μ_t and γ_r are year of election and region fixed effects, respectively, and $\epsilon_{c,t}$ is the error term.

The coefficient of interest in this case is β. Such corresponds to the pure causal effect of having a right-wing mayor elected at time t in city c at the discontinuity point.

The advantage of the above specification, is that it allows to work with all the data and hence have more power. However, the results' validity will depend on the order of the polynomial $f(.)$ to be correct (Angrist and Pischke (2008)). Hence, I try with different orders to prove robustness and also provide results of the local linear regression. This is, I test whether or not there is a discontinuity at the zero margin of votes for the right by focusing on data at the optimal bandwidth. The latter is defined as the neighbourhood around the zero margin around which we can fit a linear regression.

3.1 Balance Test

The key assumption in RDD is that observations just above and just below the threshold are identical. This is, even though assignment was not randomized by a researcher, it is as good as random. To provide evidence in favor of this being the case here, I test whether there is a discontinuity at the zero margin of votes with respect to some pre-determined variables. These are: dummies for all four macroregions (north west, north east, center and south and islands), population, geographical extension and urban extension.

Given that there are three categories (right, left, center), there are also three possible combinations of political affiliations of the winner and runner-up. Races in which it was right versus left, races in which it was right versus center and finally races in which it was center versus left. I tested discontinuity among the pre-determined variables for all three possible combinations. What I found was that, while in both in the races in which the winner and runner-up where from the right and left and from the right and center there was balance, in the case in which they were from the left and center there was not (tables can be found in the appendix). As a result, I decided to ignore the left versus center races. In order to have more observations, and so gain power, I take into account the cases in which the right came in first or second, regardless of whether the contender was from the left or center. Table 2 shows that in such cases, there is no discontinuity in any of the pre-determined variables.

Table 2: Balance test

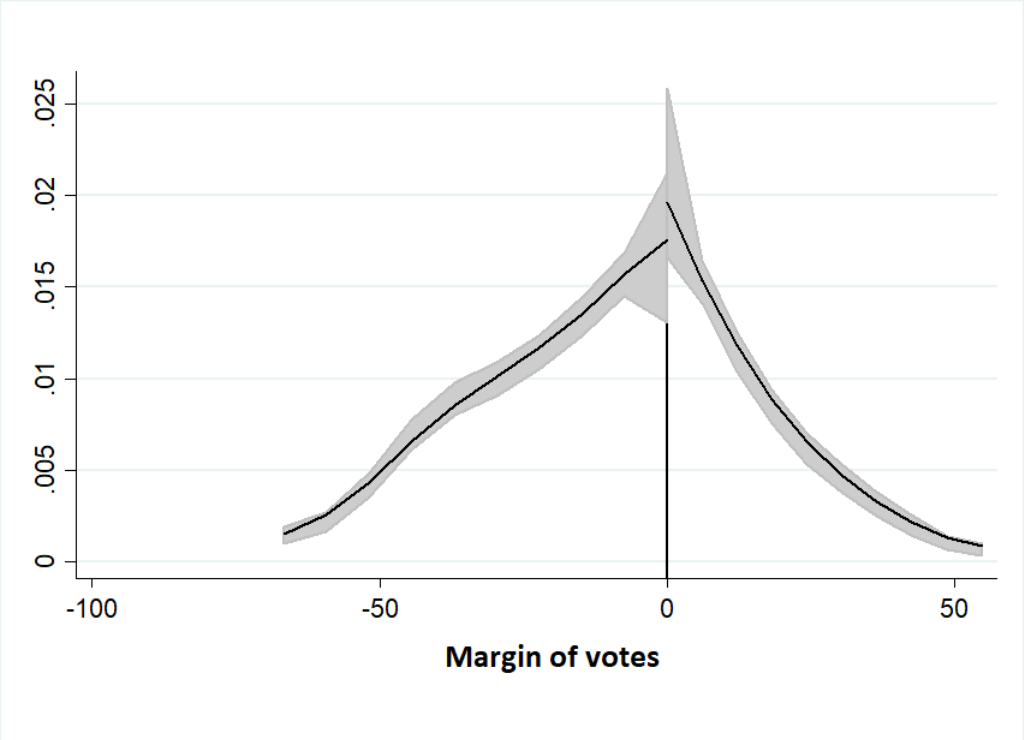
	(1) Population	(2) Total extension	(3) Urban extension	(4) North west	(5) North east	(6) Center	(7) South and Islands
Local RD	12,656.78	10.706	538.23	-0.004	0.024	-0.036	0.028
R-L/C races	(9,856.905)	(10.399)	(468.85)	(0.037)	(0.039)	(0.043)	(0.029)
Observations	2,153	2,153	2,297	2,395	2,395	2,395	2,395

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Clustered standard errors by city between parentheses. The independent variable in each case if the margin of votes of the right. This is defined as the difference between the votes of the winner and the runner-up if the right came in first and either the center or left second, and the difference between the runner-up and the winner if the right came in second and either the left or center won. In all cases the discontinuity at zero margin of votes is tested using data from the optimal bandwidth

In order to provide further evidence in favor of assignment begin as good as random, I tested whether there are differences in the density of the variable of margin of votes around zero. This was done by performing the McCrary (2008) test. The result of said test is that I cannot reject that there was no manipulation.

Figure 1: McCrary test



4 Results

In this section, I will present the results of the empirical analysis in two parts. I first present results using the entire sample of races in which the right came in first or second. I then focus on the sub-sample of races in which it was the far right which was either winner or runner-up (i.e. I disregard the observations from the center-right parties and lists).

4.1 All races

Table 3 shows the result from the effect of having a right wing mayor over total expenditure per capita. In columns 1 and 2 we can see that if we performed a simple OLS of expenditure per capita against a dummy for the right winning and included fixed effects, we would naively conclude that the right does spend less than the center and left. The difference between both columns is that in the first one I am using the entire sample, while on the second I am restricting the analysis to the cases in which the winner and runner-up are both classified and the right was either first or second. Moreover, on both cases the conclusion would be quite extreme. With the entire sample we would wrongly believe that having a right-wing mayor led to 9% less expenditure per capita; while with the restricted one the effect would be of 7.2%. However, both results are biased by the endogeneity associated to which party wins. Only a mare correlation can be actually claimed and not causality. In columns 3 and 4, I take care of the endogeneity by performing the RDD. Column 3 corresponds to the case in which all the data is used to evaluate whether or not there is a discontinuity at the zero margin of votes. On the other hand, column 4 corresponds to the estimate when only the observations at the optimal bandwidth are used. In both cases, the coefficient on the dummy for having a right wing mayor stops being significant. This means, that the null hypothesis of there being no causal impact over expenditure of having a right-wing mayor cannot be rejected.

Table 3: Effect of having a right wing mayor over total expenditure

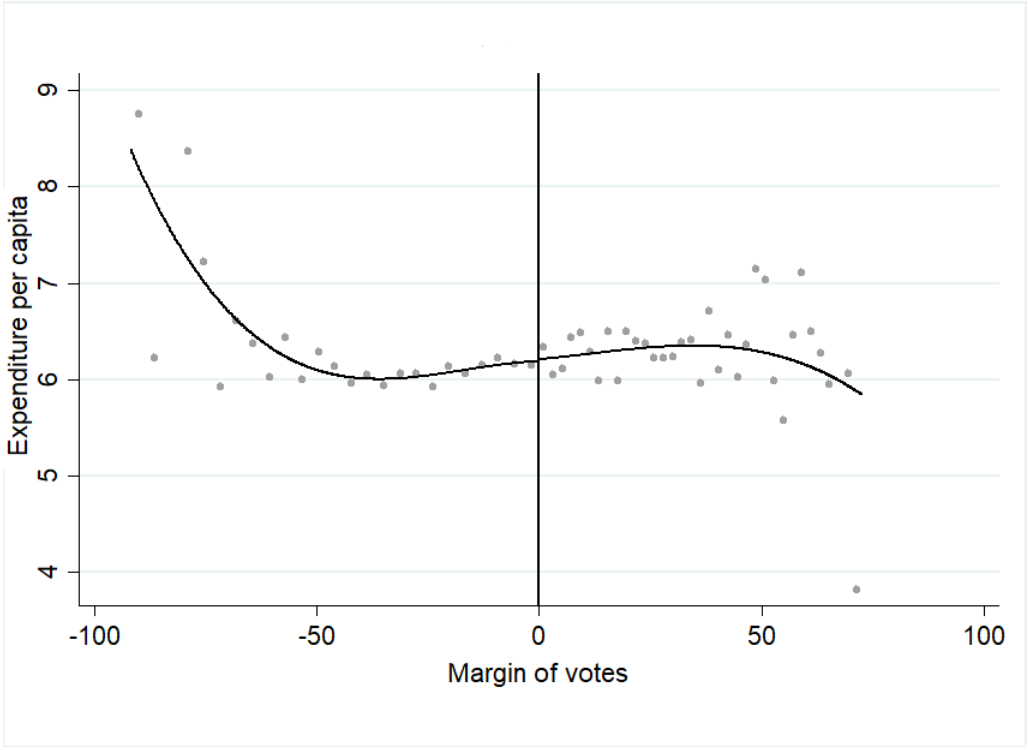
	(1) OLS	(2) OLS	(3) Cubic RD	(4) Local RD
Right wing mayor	-0.0905***	-0.0724***	0.0981	0.009
	(0.0230)	(0.0252)	(0.0827)	(0.029)
Year fixed effects	YES	YES	YES	YES
Region fixed effects	YES	YES	YES	YES
Observations	19,165	2,196	2,196	840

**p<0.01, ** p<0.05, * p<0.1

Clustered standard error by city in parenthesis. In all cases, the dependent variable is the logarithm of the mean expenditure per capita of the term, ignoring the year the mayor was elected and the last year of the term. *Right wing mayor* is a dummy variable equal to one if the winner of the election was from the right.

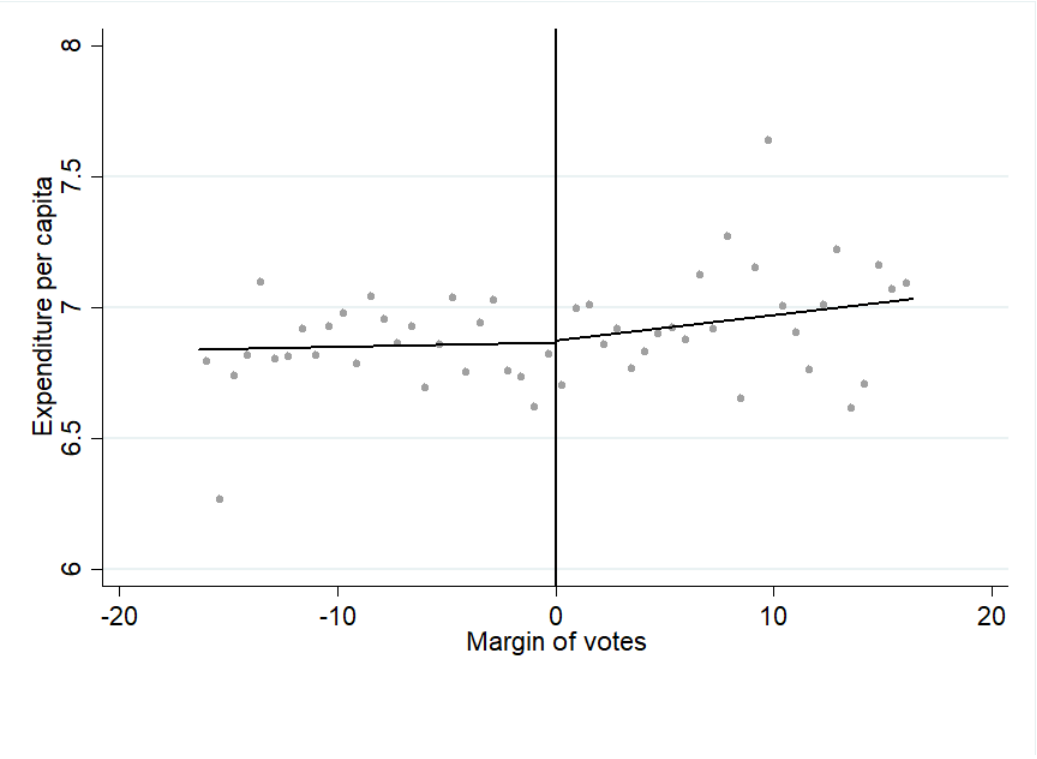
The above results can also be seen graphically. Figure 2 corresponds to the plot of expenditure per capita (in logarithm form) against the margin of votes of the right. It would seem from the plot, that when the center or left wins against the right, expenditure per capita is higher. What's more, the trend of expenditure per capita with respect to margin of votes does appear to be downward slopping. Figure 3 illustrates the RDD. It plots expenditure per capita against margin of votes of the right within the optimal bandwidth, as well as the linear prediction. It can be seen that there is no discontinuity at the zero margin. Meaning that there is no causal impact of having a right-wing mayor in Italy over total expenditure per capita.

Figure 2: Expenditure per capita



Margin of votes in this case is defined as the difference between the percentage of votes of the first and second candidate when either was right-wing. *Expenditure per capita* is in logarithm form. The solid line corresponds to a third order polynomial fit.

Figure 3: Effect of having a right-wing mayor over total expenditure per capita



Margin of votes in this case is defined as the difference between the percentage of votes of the first and second candidate when either was right-wing. *Expenditure per capita* is in logarithm form. The only data ploted here is the one within the optimal bandwidth. The solid line is the linear fit.

Table 4 shows the results for the analysis of each category of expenditure. It can be seen that in almost all of the cases, both OLSs result in significant coefficients. Not all of them, however, are negative (which would imply more expenditure on some categories by the right). By looking at just this, one might wrongly think that there are causal differences in how right-wing mayors distribute the budget. However, as in the case of total expenditure, in all of the cases I fail to find an effect in the RDD. This means that there are no causal differences even in how right-wing mayors spend their resources. The only significant coefficient in this case is the one associated with environmental expenses. Nonetheless, it is only significant using a third order polynomial for the variable *Margin of votes*. The result is not robust to other order polynomials, nor is it significant when looking at the local RD.

Table 4: Effect over the different categories of expenditure

Outcome	(1) OLS	(2) OLS	(3) Cubic RD	(4) Local RD
Education	0.161***	-0.121***	-0.0436	-0.070
	(0.0276)	(0.0321)	(0.111)	(0.125)
Social	0.341***	-0.0552*	-0.0356	0.116
	(0.0314)	(0.0302)	(0.107)	(0.118)
Culture	-0.583***	-0.324***	0.145	0.171
	(0.0647)	(0.0958)	(0.316)	(0.370)
Police	0.0441	0.145**	0.173	0.162
	(0.0462)	(0.0675)	(0.234)	(0.264)
Administrative	0.281***	-0.00628	0.104	0.308
	(0.0334)	(0.0441)	(0.169)	(0.193)
Development	-0.312***	-0.202***	-0.133	0.019
	(0.0601)	(0.0762)	(0.256)	(0.278)
Environment	-0.0261	-0.104**	0.307**	0.196
	(0.0326)	(0.0420)	(0.124)	(0.158)
Transport	-0.0125	0.00467	0.018	-0.022
	(0.0265)	(0.0366)	(0.125)	(0.147)
Year fixed effects	YES	YES	YES	YES
Region fixed effects	YES	YES	YES	YES
Optimal bandwidth	NO	NO	NO	YES
Observations	17,862	2,175	2,175	1,140

***p<0.01, ** p<0.05, * p<0.1

Clustered standard errors by city in parenthesis. In each case, the outcome is in logarithm form and corresponds to the mean over the term, ignoring the year of election and the last year the mayor was in power. The coefficients and standard errors reported correspond to that of the dummy variable for a right-wing mayor being in power in city c elected at time t. Observations corresponds to case when the dependent variable is mean expenditure per capita on education.

4.2 Far right

Having analysed the cases in which any candidate from the right won against the center or left, I now focus the analysis on cases in which the far right won against them. As mentioned before, it is possible that the fact that the center-right, center and center-left actually overlap a bit in terms of ideology made it so that I found no differences before. It could be the case that in order to find differences one needs to compare parties that differ more in their beliefs. The far right in this case is restricted to the party *Lega Nord*.

Before stepping into the results, I first must prove, as before, that the cities in which *Lega Nord* barely won and barely lost are actually identical. With this in mind, Table 5 shows balance among 7 pre-determined variables. Moreover, figure 4 plots the results of the McCrary test and shows that it cannot be rejected that there was no manipulation around the threshold.

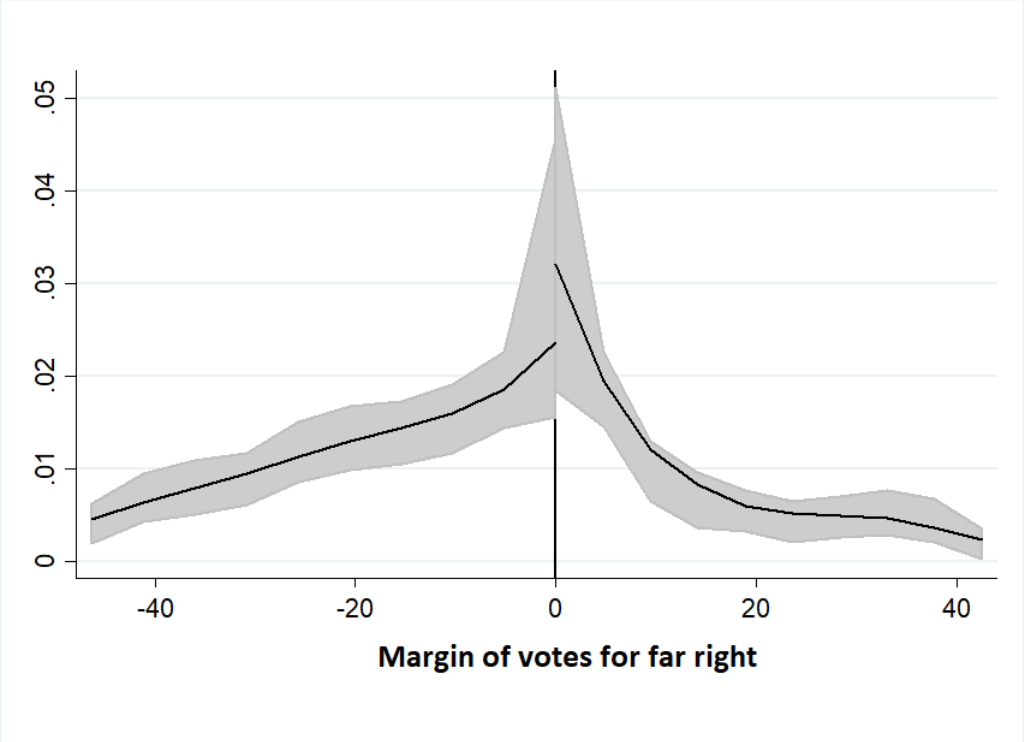
Table 5: Balance test for the far right

	(1) Population	(2) Total extension	(3) Urban extension	(4) North west	(5) North east	(6) Center	(7) South and Islands
RD Estimate	6209.221	8.462	61.886	0.067	-0.082	0.007	0.012
	(3887.484)	(9.403)	(199.402)	(0.104)	(0.121)	(0.019)	(0.018)
Observations	334	321	339	339	339	339	339

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Clustered standard errors by city between parentheses. The independent variable in each case if the margin of votes of the far right in races against the left or center. This is defined as the difference between the votes of the winner and the runner-up if the far right came in first and either the center or left second, and the difference between the runner-up and the winner if the far right came in second and either the center or left won.

Figure 4: McCrary test for the far right



Having then proved the validity of the assumptions of RDD for this case, I now present the results. Starting from total expenditure, the first column of table 6 shows that a simple OLS with region and year fixed effects would imply that far right mayors spend 66% less per capita than their center and left counterparts. When I account for the endogeneity of the party, however, the coeficient goes down. From column 4 it can be seen that looking at the discontinuity at the zero margin of votes in the optimal bandwidth shows that the far right effect is actually smaller in magnitude but remains significant. The RDD points to a causal effect of a mayor from the far right by which they spend 37.9% less per capita.

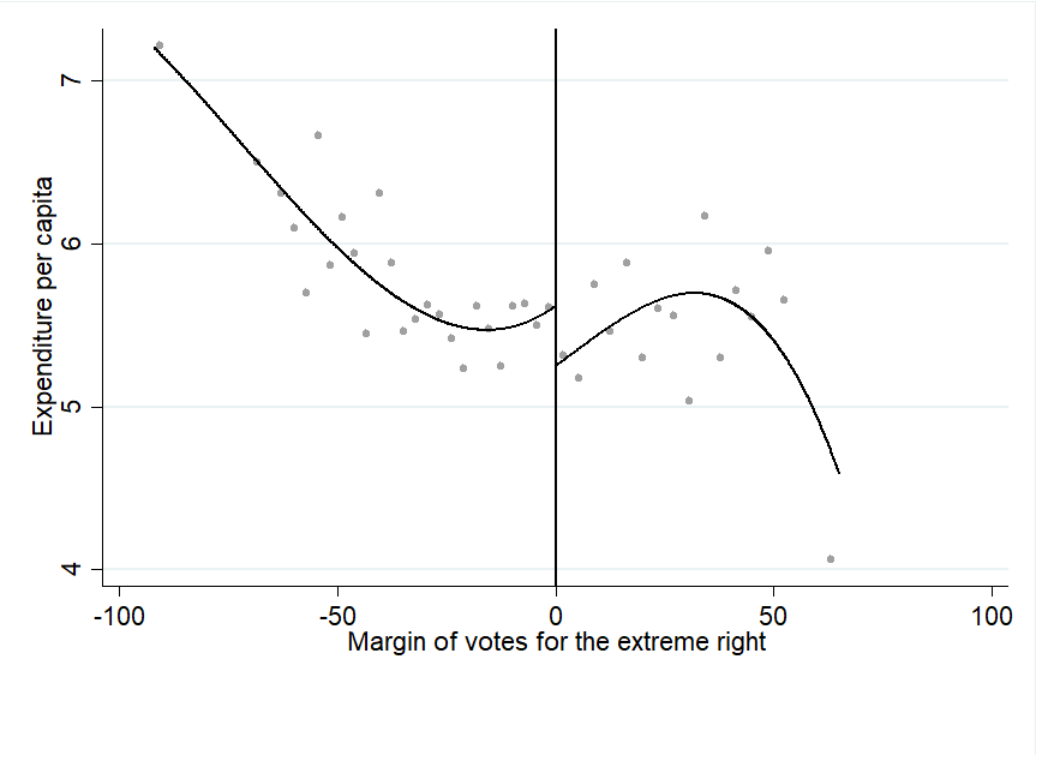
Table 6: Effect of having a mayor from the far right over total expenditure

	(1) OLS	(2) OLS	(3) Cubic RD	(4) Local RD
Mayor from far right	-0.662***	-0.098	-0.221	-0.379*
	(0.0406)	(0.091)	(0.190)	(0.198)
Year fixed effects	YES	YES	YES	YES
Region fixed effects	YES	YES	YES	YES
Observations	19,164	303	303	169

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
**p<0.01, ** p<0.05, * p<0.1
Clustered standard error by city in parenthesis. In all cases, the dependent variable is the logarithm of the mean expenditure per capita of the term, ignoring the year the mayor was elected and the last year of the term. *Mayor from far right* is a dummy variable equal to one if the winner of the election was from the far right.

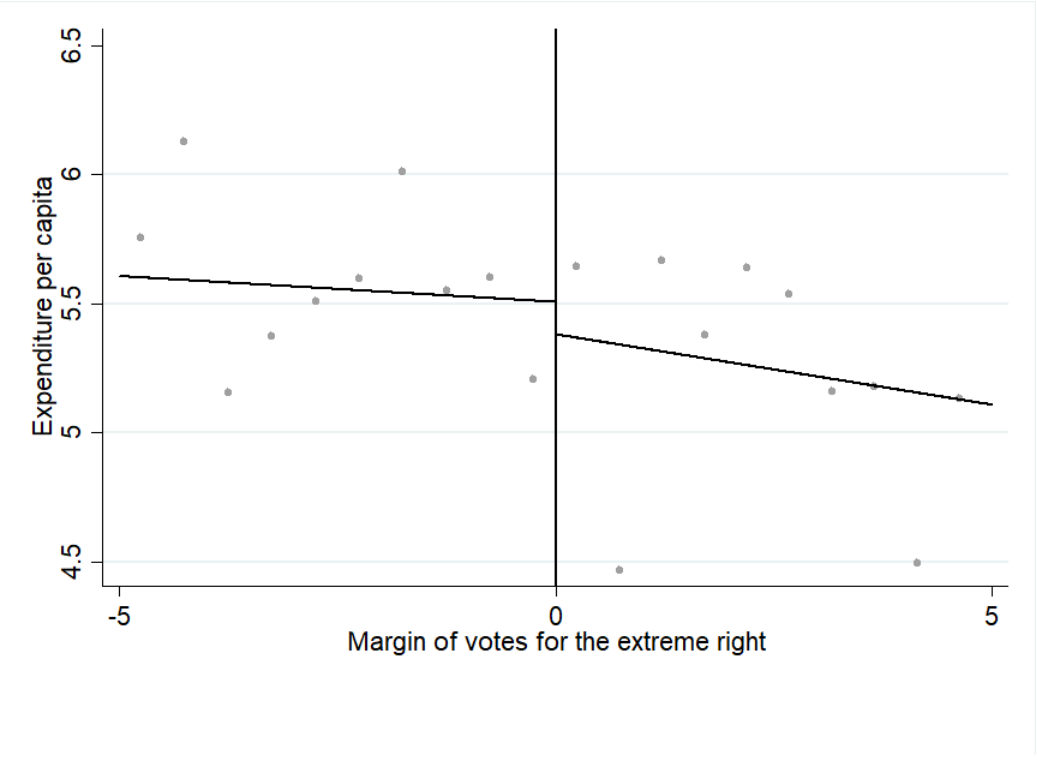
Again, the results from table 6 can be seen graphically. Figure 5 shows already that there is a discontinuity at zero. It also shows a seemingly downward trend of expenditure per capita with respect to the margin of votes of the far right. Moreover, figure 6 shows in the optimal bandwidth that there is in fact a sharp discontinuity when the far right wins by a very small margin.

Figure 5: Expenditure per capita



Margin of votes for the extreme right in this case is defined as the difference between the percentage of votes of the first and second candidate when either was from the far right. *Expenditure per capita* is in logarithm form. The solid line corresponds to a third order polynomial fit.

Figure 6: Effect of having a right-wing mayor over total expenditure per capita



Margin of votes of the extreme right in this case is defined as the difference between the percentage of votes of the first and second candidate when either was from the far right. *Expenditure per capita* is in logarithm form. The only data ploted here is within the optimal bandwidth. The solid line is the linear fit.

Table 7 reports the results for the different categories of expenditure. It shows that for almost every category of expenditure, there are still no causal differences of having a mayor from the right. The only category for which the RDD yields significant results is education. This would mean that it's less expenditure per capita in in this category the one that is driving the previous result. The coefficient itself implies that having a mayor from the far right results in 54.5% less expenditure per capita in education, with respect to when someone from the center or left is elected. Although this number does seems too big, the sign of the coefficient is the one that would be expected a priori. It seems likely that the lack of sufficient observations is the culprit of the extreme result.

Table 7: Effect over the different categories of expenditure for the far right

Outcome	(1) OLS	(2) OLS	(3) Cubic RD	(4) Local RD
Education	-0.376***	0.00522	-0.735	-0.545**
	(0.0694)	(0.184)	(0.533)	(0.182)
Social	-0.729***	0.0105	0.201	0.068
	(0.0685)	(0.167)	(0.390)	(0.302)
Culture	-1.125***	0.0968	0.0856	0.432
	(0.114)	(0.287)	(0.947)	(1.264)
Police	0.156*	-0.00635	0.821	0.629
	(0.0891)	(0.291)	(0.640)	(0.584)
Administrative	-0.432***	-0.0293	0.259	0.423
	(0.0757)	(0.179)	(0.398)	(0.373)
Development	-1.353***	-0.666	-1.095	-1.831
	(0.208)	(0.603)	(1.937)	(1.467)
Environment	-1.006***	-0.0465	0.168	0.628
	(0.0658)	(0.163)	(0.339)	(0.447)
Transport	-0.473***	-0.059	-0.308	-0.431
	(0.0496)	(0.117)	(0.259)	(0.284)
Year fixed effects	YES	YES	YES	YES
Region fixed effects	YES	YES	YES	YES
Optimal bandwidth	NO	NO	NO	YES
Observations	17,233	282	282	147

***p<0.01, ** p<0.05, * p<0.1

Clustered standard errors by city in parenthesis. In each case, the outcome is in logarithm form and corresponds to the mean over the term, ignoring the year of election and the last year the mayor was in power. The coefficients and standard errors reported correspond to that of the dummy variable for a right-wing mayor being in power in city c elected at time t. Observations corresponds to case when the dependent variable is mean expenditure per capita on education.

5 Robustness Checks

In this section, I proved that the results presented are robust to the following: taking into account the last year that the mayor is in office and different order polynomials of the RDD.

First off, tables 8 through 11 show that the conclusions reached do not change when the last year in office is used for the calculations of the expenditure variables. As men-

tioned before, this year was not taken into account in the main specifications, since there could be a bias associated to the mayor seeking re-election.

It should be noted, that in this case the expenditure on police when the far right won the election starts being significant in the local RD. The coefficient however seems extreme. Most likely, it affected by the fact that there are few observations. However, it would seem reasonable to think that the far right would spend more on police during an election year, since public safety is usually a big concern for right wing voters.

Table 8: Effect of having a right wing mayor over total expenditure

	(1) OLS	(2) OLS	(3) Cubic RD	(4) Local RD
Right wing mayor	-0.0972***	-0.0808***	0.108	0.015
	(0.0229)	(0.0249)	(0.0790)	(0.029)
Year fixed effects	YES	YES	YES	YES
Region fixed effects	YES	YES	YES	YES
Observations	19,165	2,196	2,196	840

**p<0.01, ** p<0.05, * p<0.1

Clustered standard error by city in parenthesis. In all cases, the dependent variable is the logarithm of the mean expenditure per capita of the term, ignoring the year the mayor was elected and keeping the last year of the term. *Right wing mayor* is a dummy variable equal to one if the winner of the election was from the right.

Table 9: Effect over the different categories of expenditure

Outcome	(1) OLS	(2) OLS	(3) Cubic RD	(4) Local RD
Education	0.167***	-0.123***	-0.0418	-0.053
	(0.0273)	(0.0306)	(0.105)	(0.112)
Social	0.335***	-0.0642**	-0.0260	0.079
	(0.0314)	(0.0313)	(0.110)	(0.116)
Culture	-0.574***	-0.339***	0.237	0.379
	(0.0636)	(0.0938)	(0.308)	(0.370)
Police	0.324***	0.00280	0.156	0.162
	(0.0321)	(0.0409)	(0.146)	(0.264)
Administrative	0.281***	-0.00628	0.104	0.308
	(0.0334)	(0.0441)	(0.169)	(0.193)
Development	-0.327***	-0.264***	-0.112	-0.067
	(0.0594)	(0.0761)	(0.245)	(0.261)
Environment	-0.0249	-0.122***	0.284**	0.151
	(0.0325)	(0.0414)	(0.118)	(0.154)
Transport	-0.0208	-0.0142	0.0584	0.039
	(0.0260)	(0.0353)	(0.120)	(0.133)
Year fixed effects	YES	YES	YES	YES
Region fixed effects	YES	YES	YES	YES
Optimal bandwidth	NO	NO	NO	YES
Observations	17,862	2,175	2,175	1,140

***p<0.01, ** p<0.05, * p<0.1

Clustered standard errors by city in parenthesis. In each case, the outcome is in logarithm form and corresponds to the mean over the term, ignoring the year of election and keeping the last year the mayor was in power. The coefficients and standard errors reported correspond to that of the dummy variable for a right-wing mayor being in power in city c elected at time t. Observations corresponds to case when the dependent variable is mean expenditure per capita on education.

Table 10: Effect of having a mayor from the far right over total expenditure

	(1) OLS	(2) OLS	(3) Cubic RD	(4) Local RD
Mayor from far right	-0.682***	-0.0971	-0.218	-0.277*
	(0.0408)	(0.0927)	(0.193)	(0.153)
Year fixed effects	YES	YES	YES	YES
Region fixed effects	YES	YES	YES	YES
Observations	19,164	303	303	137

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

**p<0.01, ** p<0.05, * p<0.1

Clustered standard error by city in parenthesis. In all cases, the dependent variable is the logarithm of the mean expenditure per capita of the term, ignoring the year the mayor was elected and keeping the last year of the term. *Mayor from far right* is a dummy variable equal to one if the winner of the election was from the far right.

Table 11: Effect over the different categories of expenditure for the far right

Outcome	(1) OLS	(2) OLS	(3) Cubic RD	(4) Local RD
Education	-0.380***	-0.0534	-0.685	-0.463*
	(0.0686)	(0.172)	(0.464)	(0.222)
Social	-0.749***	0.0118	-0.0949	-0.207
	(0.0677)	(0.162)	(0.371)	(0.330)
Culture	-1.173***	0.00747	0.214	0.659
	(0.115)	(0.285)	(0.881)	(1.049)
Police	0.154*	0.121	1.193*	0.973*
	(0.0854)	(0.252)	(0.639)	(0.393)
Administrative	-0.430***	-0.0951	0.265	0.484
	(0.0743)	(0.176)	(0.391)	(0.329)
Development	-1.349***	-0.711	-0.422	-1.356
	(0.209)	(0.544)	(1.939)	(1.432)
Environment	-1.038***	-0.0401	0.104	0.654
	(0.0661)	(0.157)	(0.334)	(0.408)
Transport	-0.490***	-0.0607	-0.254	-0.375
	(0.0496)	(0.117)	(0.249)	(0.323)
Year fixed effects	YES	YES	YES	YES
Region fixed effects	YES	YES	YES	YES
Optimal bandwidth	NO	NO	NO	YES
Observations	17,233	282	282	147

***p<0.01, ** p<0.05, * p<0.1

Clustered standard errors by city in parenthesis. In each case, the outcome is in logarithm form and corresponds to the mean over the term, ignoring the year of election and keeping the last year the mayor was in power. The coefficients and standard errors reported correspond to that of the dummy variable for a right-wing mayor being in power in city c elected at time t. Observations corresponds to case when the dependent variable is mean expenditure per capita on education.

Finally, tables 12 and 13 show that the results for the cases when the right won and when the far right won, respectively, are also robust to changing the order of the polynomial used in the RDD. Specifically, it can be noted that while some categories of expenditure become significant with some orders, those results are not robust.

Table 12: Effect over the different categories of expenditure

Outcome	(1) Quadratic RD	(2) Fourth degree RD
Total expenditure	0.0609	0.120
	(0.0660)	(0.0972)
Education	-0.0465	-0.152
	(0.0908)	(0.136)
Social	0.113	0.164
	(0.0899)	(0.124)
Culture	-0.128	0.122
	(0.251)	(0.390)
Police	0.274	0.227
	(0.187)	(0.304)
Administrative	0.120	0.442**
	(0.137)	(0.199)
Development	-0.0640	0.200
	(0.201)	(0.293)
Environment	0.182*	0.213
	(0.0988)	(0.150)
Transport	0.0807	0.0240
	(0.102)	(0.153)
Year fixed effects	YES	YES
Region fixed effects	YES	YES
Observations	2,196	2,196

***p<0.01, ** p<0.05, * p<0.1

Clustered standard errors by city in parenthesis. In each case, the outcome is in logarithm form and corresponds to the mean over the term, ignoring the year of election and the last year the mayor was in power. The coefficients and standard errors reported correspond to that of the dummy variable for a right-wing mayor being in power in city c elected at time t. Observations corresponds to case when the dependent variable is mean expenditure per capita.

Table 13: Effect over the different categories of expenditure

Outcome	(1) Quadratic RD	(2) Fourth degree RD
Total expenditure	-0.278*	-0.333
	(0.162)	(0.230)
Education	-0.406	-0.517
	(0.397)	(0.628)
Social	-0.0977	0.109
	(0.310)	(0.478)
Culture	-0.592	0.416
	(0.703)	(1.188)
Police	0.796	1.233
	(0.610)	(0.864)
Administrative	0.426	0.00638
	(0.329)	(0.454)
Development	-1.664	-1.617
	(1.446)	(2.299)
Environment	-0.00927	-0.0910
	(0.307)	(0.422)
Transport	-0.286	-0.389
	(0.221)	(0.317)
Year fixed effects	YES	YES
Region fixed effects	YES	YES
Observations	303	303

***p<0.01, ** p<0.05, * p<0.1

Clustered standard errors by city in parenthesis. In each case, the outcome is in logarithm form and corresponds to the mean over the term, ignoring the year of election and the last year the mayor was in power. The coefficients and standard errors reported correspond to that of the dummy variable for a right-wing mayor being in power in city c elected at time t. Observations corresponds to case when the dependent variable is mean expenditure per capita on education.

6 Conclusions

I studied the relationship between political affiliations and city expenditure using information from Italian municipalities. Using a regression discontinuity design I tried to see if there is any causal impact of having a right wing mayor. Results show that the effect is nonexistent for total expenditure per capita, as well as for the different categories of expenditure. However, this was the case when the definition of right-wing

was such that it included both those from the far right and center-right. When the analysis was restricted to just far right mayors (defined as those from the party Lega Nord) the story changes. In this latter case, I found a strong negative causal effect of having a mayor from the far right as opposed to one from the center or left. This effect seems to be driven by less expenditure on education, since it is the only category of expenditure over which I found causal differences.

Results seem to support the idea that parties that are already towards the center (i.e. the center-right parties) are more likely to go even more so towards to center in order to capture more votes. They would hence be following the median voter theorem. However, parties positioned more at the extremes of the political spectrum (i.e. the far right parties) are less inclined to do so. In this sense, their behaviour would seem to be better captured by Alesina's model.

The above seems reasonable if we think that the more extreme a person's position is, the higher the cost for them of deviating and going more towards the center. However, the gains might also be higher. This is especially the case when we are talking about elections at the city level. The reason for this, is that while a country or even a state might have a reasonable amount of heterogeneity, cities tend to be more homogeneous. This precise idea was put forward and proven for the US by Ferreira and Gyourko (2009). While there are enough people at the far right of the spectrum for someone like Trump to win an election with their support, the same is unlikely to occur in a city. As a result, the benefits of not going to the center would be decreasing the more local we get.

Consequently, it would follow that if Lega Nord's mayors are keeping with what we would expect from the far right (i.e. a government of smaller size) instead doing more centralist policies, then it must be the case that they do care about what policies they put forward. Hence, it would seem like winning is not everything for Italian politicians.

A somewhat different story could arise when the fact that this is a local estimate is taken into account. In this analysis we are comparing cities in which the right won or lost by a very small margin. As a result, a very high percentage of the population of the city where the right wing mayor won had actually voted for the left or center. It could be the case that the center-right (but not Lega Nord) recognize this and want to cater to more than just the small majority that voted for them. This could be because they have preferences over, not only preferences, but also the overall well-being of the citizens it governs. This need not mean they are benevolent, but that they recognize that politics are a long term game in which at times compromises need to be made.

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Appendix

Table 14: Balance test for right versus left races

	(1) Population	(2) Total extension	(3) Urban extension	(4) North west	(5) North east	(6) Center	(7) South and Islands
Local RD RL races	8,530.169 (5,462.291)	3.287 (9.938)	315.214 (309.073)	0.006 (0.055)	0.081 (0.048)	-0.012 (0.046)	-0.069 (0.061)
Observations	1,944	1,944	2,068	2,081	2,081	2,081	2,081

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Clustered standard errors by city between parentheses. The independent variable in each case if the margin of votes of the right against the left. This is defined as the difference between the votes of the winner and the runner-up if the right came in first and the left second, and the difference between the runner-up and the winner if the right came in second and the left won. In all cases the discontinuity at zero margin of votes is tested using data from the optimal bandwidth

Table 15: Balance test for right versus center races

	(1) Population	(2) Total extension	(3) Urban extension	(4) North west	(5) North east	(6) Center	(7) South and Islands
Local RD RC races	-25,945.954 (29,710.629)	9.770 (18.123)	2,313.691 (2,648.937)	0.034 (0.127)	-0.008 (0.100)	-0.057 (0.033)	-0.003 (0.127)
Observations	503	503	533	541	541	541	541

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Clustered standard errors by city between parentheses. The independent variable in each case if the margin of votes of the right against the center. This is defined as the difference between the votes of the winner and the runner-up if the right came in first and the center second, and the difference between the runner-up and the winner if the right came in second and the center won. In all cases the discontinuity at zero margin of votes is tested using data from the optimal bandwidth

Table 16: Balance test for left versus center races

	(1) Population	(2) Total extension	(3) Urban extension	(4) North west	(5) North east	(6) Center	(7) South and Islands
Local RD LC races	35,673.626*	-12.211	-206.783	0.042	-0.048	-0.110	0.131
	(21,143.755)	(11.188)	(633.682)	(0.084)	(0.052)	(0.058)	(0.099)
Observations	624	624	661	667	667	667	667

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Clustered standard errors by city between parentheses. The independent variable in each case if the margin of votes of the left against the center. This is defined as the difference between the votes of the winner and the runner-up if the left came in first and the center second, and the difference between the runner-up and the winner if the left came in second and the center won. In all cases the discontinuity at zero margin of votes is tested using data from the optimal bandwidth.

Table 17: Balance test for far right versus left races

	(1) Population	(2) Total extension	(3) Urban extension
Local RD RL races	2,627.063	1.270	152.086
	(5,328.396)	(9.823)	(478.554)
Observations	264	264	280

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Clustered standard errors by city between parentheses. The independent variable in each case if the margin of votes of the far right against the left. This is defined as the difference between the votes of the winner and the runner-up if the far right came in first and the left second, and the difference between the runner-up and the winner if the far right came in second and the left won. In all cases the discontinuity at zero margin of votes is tested using data from the optimal bandwidth

Table 18: Balance test for far right versus center races

	(1) Population	(2) Total extension	(3) Urban extension
Local RD RC races	4,179.685	-2.029	40.643
	(29,710.629)	(18.522)	(381.725)
Observations	53	56	53

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Clustered standard errors by city between parentheses. The independent variable in each case if the margin of votes of the far right against the center. This is defined as the difference between the votes of the winner and the runner-up if the far right came in first and the center second, and the difference between the runner-up and the winner if the far right came in second and the center won. In all cases the discontinuity at zero margin of votes is tested using data from the optimal bandwidth

Summary

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Whether the party of people in government matters in terms of policy outcomes has been a long-standing question in political sciences. For one, Downs (1957) would claim that parties both at the left and right of the political spectrum will promise centralist policies in order to win elections. However, later models such as Alesina (1988) argue that parties actually care about which policies they implement and not just about winning. If such is the case, then which party wins will affect policy decisions. In this paper, I aim to analyze this issue in the context of Italian municipalities. The main question to be answered is, which is the causal impact of the political affiliation of Italian mayors? And, more specifically, what is the causal impact of having a right-wing mayor in Italy?

Empirical literature on this issue has been mixed. Bjørnskov and Potrafke (2013), using data for the US, implement first differences to measures of size of govenment. What they conclude is that Republican governors do reduce the size and scope of government with respect to Democratic ones. On the other hand, Reed (2006), again for the US, finds evidence in favor of Downs model for governors. Further, Potrafke (2011) concludes that the relationship between budget allocations and political ideology is week among OECD countries. Finally, Russo and Verzichelli (2016) using data for

Italy find that cabinet ideology can lead to changes in government spending, but only if the governing parties are not too polarized.

In any case, the main obstacle to be tackled is that which party wins is endogenous. Consequently, simply comparing cities where different parties won will yield biased results.

But even those who have accounted for such problem using regression discontinuity designs (RDD) have still found confounding results. For one, Pettersson-Lidbom (2008) find a positive causal impact of having a left-wing mayor in Sweden. This amounts to them spending 2% more per capita and employing 4% more workers compared to the right. On the other hand, Ferreira and Gyourko (2009), find no causal impact over expenditure per capita, crime and size of government at the city level for the US. However, a later work by Gerber and hopkins (2011) find that although total expenditure per capita was indeed the same under democratic mayors in the US, the share spent on public safety was lower in such cities. While Beland and Oloomi conclude the oposite: Democratic mayors spend more then Republicans on public safety, as well as education and health.

Using an RDD and data for Italian municipalities from 1999 to 2015, I seek to understand whether or not there are causal differences in expenditure between the right and the left or center. Italy's political environment constitutes a special setting in which to study this relationship.

Unlike the United States, for instance, in which there are just two big parties, Italy has an abundance of parties with different ideologies. Moreover, it is quite common, especially in cities, for candidates to run with local civic lists (*liste civiche*) instead of big parties. Said lists are usually very hard to classify within the typical political

spectrum. Given that there are more than 8000 cities in Italy, this means that the percentage of clearly classifiable candidates need not be too high.

The analysis is done not only looking at total expenditure, but also at its different components. The idea being that, even if there are no differences in how much they spend, budget allocations could still differ. The empirical analysis shoes the following: Total expenditure per capita, as well as its components, appear to be the same regardless of whether the right won (and the center or left came in second) or it lost (and the center or left won). However, *causal* differences do appear when comparing the far right with the center or left. This is, when instead of using all right-wing mayors, I exclude the center-right ones, a difference of 37.9% in expenditure per capita arises. Said difference seems to be mainly driven by less expenditure in education.

The reason behind deciding to study the case for the far right, is that nowadays the line between center-right, center and center-left is a bit blurred. Their ideologies do overlap and that could be the reason behind me finding that there is no causal impact of a right-wing mayor in Italy.

The far right races in this case will be defined as those in which the political party *Lega Nord* was either the winner or the runner-up. The choice of this party was mainly based on the years of analysis. As mentioned before, the data set starts in 1999. As expressed by Ignazi (2005), it was precisely during the mid and late 1900' that Lega Nord started to radicalize more and occupied the place previously held by the party *Alleanza Nazionale* as the right-extremist pasty in Italy. Further, while the manifiesto of the party *Forza Italia* could be classified as neoliberal, it has actually taken some centralist stands.

I studied the relationship between political affiliations and city expenditure using

information from Italian municipalities. Using a regression discontinuity design I tried to see if there is any causal impact of having a right wing mayor. Results show that the effect is nonexistent for total expenditure per capita, as well as for the different categories of expenditure. However, this was the case when the definition of right-wing was such that it included both those from the far right and center-right. When the analysis was restricted to just far right mayors (defined as those from the party Lega Nord) the story changes. In this latter case, I found a strong negative causal effect of having a mayor from the far right as opposed to one from the center or left. This effect seems to be driven by less expenditure on education, since it is the only category of expenditure over which I found causal differences.

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Consequently, it would follow that if Lega Nord's mayors are keeping with what we would expect from the far right (i.e. a government of smaller size) instead doing more centralist policies, then it must be the case that they do care about what policies they put forward. Hence, it would seem like winning is not everything for Italian politicians.

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