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Matteo Cervellati, Giorgio Gulino and Paolo Roberti

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Centre for Economic Policy Research
33 Great Sutton Street, London EC1V 0DX, UK
Tel: +44 (0)20 7183 8801
www.cepr.org

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JEL Classification: N/A

Keywords: Electoral Rules and Noise, Party Ideologies and Policies, Selection of Executive Politicians, Natural Experiment

Matteo Cervellati - m.cervellati@unibo.it
Department of Economics, University of Bologna, CEPR, London, CESIfo, Munich, IZA, Bonn and CEPR

Giorgio Gulino - giorgio.gulino@upf.edu
UPF, Barcelona and Barcelona GSE

Paolo Roberti - paolo.roberti@unibz.it
Free University of Bozen

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Matteo Cervellati
University of Bologna
CEPR, London

Giorgio Gulino
UPF
Barcelona GSE

Paolo Roberti
Free University
of Bozen - Bolzano

April 12, 2021

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Cervellati: m.cervellati@unibo.it; Gulino: giorgio.gulino@upf.edu; Roberti: paolo.roberti@unibz.it.

1 Introduction

The working of representative democracies critically hinges on the electoral procedures through which millions of citizens express their preferences over parties and politicians. While this political selection process is vital, it is fraught with challenges (Besley, 2005). Voters have limited information on the behavior of politicians (e.g., Ferraz and Finan, 2008) or the details of their platforms (e.g., Kendall, Nannicini and Trebbi, 2015; Pons, 2018). Electoral promises are not enforceable contracts and the presence of government coalitions, which is the rule rather than the exception in western democracies, limits the scope for direct political accountability (Martin and Vanberg, 2014).[1] Furthermore, recent work shows that even the details of electoral procedures can affect vote turnout (e.g., Fujiwara, 2015; Pons and Tricaud, 2018; Cantoni and Pons, 2019) and induce mistakes (e.g., Shue and Luttmer, 2009; Augenblik and Nicholson, 2015), all of which suggests that the process of voter preference transmission can be fairly noisy. Indeed, the available evidence generally raises important questions over the quality of voter representation. In response to these long-lasting concerns, scholars have emphasized the conceptual role of parties as fundamental to the proper functioning of democracies. Parties are responsible for selecting, and disciplining, candidates as well as play a major role in the appointment of non-elected administrators (Dal Bó and Finan, 2018). In theory, party ideology should facilitate the (self-) selection of policy makers with genuine preferences over policies, thereby supporting the credibility of political platforms, particularly when electoral procedures are noisy (e.g., Wittman, 1989). Recent studies show, in fact, that different parties in proportional systems elect politicians with heterogenous characteristics (Dal Bó et al., 2017; Dal Bó et al., 2021). Yet whether, and how, electoral procedures and parties' political ideologies causally impact the selection of policy makers and, ultimately, implemented policies, remain largely open empirical questions.

[1] The share of coalition governments steadily increased from about 45% in 1960 to over 65% in 2016 (see also Armingeon et al. 2017). In coalition governments, no single politician or party has direct control and responsibility over implemented policies. As further discussed below, policy setting and the role of different parties in multiparty governments continue to be debated, both conceptually and empirically.

In this paper, we provide a measurement of systematic noise in the allocation of votes across parties in the context of a large scale natural experiment. Specifically, we study the effect of randomly perturbing the political power of parties within ruling majorities. Our analysis allows to isolate the causal impact of treating parties with specific ideologies on the policies implemented by coalition governments and on the characteristics of appointed cabinet members. We look at the universe of the approximately 1,300 local elections held over the decade of 2002-2012 in around 600 municipalities, home to over 30 million inhabitants in Italy. Voters can express a preference for a candidate for mayor, the head of local government, as well as vote for a party. We document that the electoral rules together with the particular graphical design of the ballot papers created a behavioral focal point leading to systematic mistakes in vote casting.[2] We exploit a law that introduced a lottery system to establish the position of party symbols within each running coalition in a given municipality and election year. We assess the existence and quantify the magnitude of systematic random noise induced by these electoral procedures. We show that for over a decade, a non-negligible share of votes was systematically and randomly reallocated between parties within the approximately 3,000 running coalitions, each supporting a given candidate for mayor.

The resulting randomization in votes offers a natural experiment ideal to studying policy setting within majority coalitions, thus contributing to this highly debated issue. Crucially, specific features of the setup allow to isolate important confounders and explore the mechanisms at work. First, running coalitions are pre-determined before the vote and before randomization takes place. Second, a super-majority rule ensures that the winning coalition is allocated at least 60 percent of the seats in the councils. Third, we document that the ballot-order effect involves a reshuffling of votes only within, and not across, running coalitions. These features make it possible to account, by construction, for all confounders related to the process of formation of the ruling coalitions as well as to the mechanisms

[2]The complex voting rules, which allow to cast multiple votes, together with the particular graphical structure of the voting ballots, induce a behavioral ballot-order effect that translates into a disproportional allocation of votes to the party whose symbol is located directly to the right of the name of the candidate heading the coalition. Details are reported in Section 2.

of bargaining with minorities, which to date have proved difficult to isolate.[3] Fourth, the main national parties, including a left-wing (neo-communist), a center-left (democratic), a center-right (neo-liberal) and a populist right-wing party, also run at the local level, meaning we can study parties of different sizes and ideologies. Fifth, the casual effect of treating a party is estimated by comparing the same party in coalition governments when treated and when non treated. Finally, we document that the lottery ensures the orthogonality of the treatment to party identities.[4]

We then turn to actual policies on welfare, education, property taxes, and security. We find that even comparatively small random perturbations associated to the noise of electoral procedures have a significant causal impact on the policies implemented by coalition governments. We use information from political manifestos to construct a summary measure of the ideology of each party in a multi-dimensional policy space. The results show that randomly perturbing the power of parties does in fact shift coalition policies towards the political ideology of the treated party. This effect is detected, however, only when treating parties with a clear and prominent electoral focus on a specific subset of issues. No effect is detected for parties that cover all issues more evenly.[5] While we find that electoral noise perturbs the allocation of votes both in majority and minority coalitions, the effect on fiscal policies is present only when treating parties within ruling majorities. Furthermore, the effect can be detected for both small and big parties and the estimates are large in magnitude. Voting noise leads to a random increase in vote shares within coalitions in the order of 3.5 percentage points, which implies an increase in the vote shares of 15 percent for large parties and up to 30 percent for the smaller ones. The corresponding increase in spending

[3]The system resembles a new parliamentary for of government, where a mayor (akin to a prime minister) is the head of a cabinet and is directly elected with the support of a coalition of parties. Importantly, the super-majority rule ensures that the winning coalition can always pass the budget and, therefore, choose fiscal policies.

[4]We perform an extensive battery of tests to check the randomization procedure. The results show, among other things, that the treatment is monotonic and can be detected for both majority and minority coalitions, that none of the main parties has a different probability of being randomly treated, and that treated and non-treated parties are observationally identical.

[5]Importantly, the causal estimates deliver results that differ substantially from those that would be obtained from correlational regressions of the effect of the size of each party on realized policies.

on party-specific salient issues is estimated in the order of 10 percent. We also find that electoral noise has a stronger impact on the more divisive policies. In other words, those issues that are more differentially mentioned across parties, such as welfare, security, or taxes.[6]

The change in policies associated to increasing the power of a party cannot be attributed to the process of coalition formation but it rather relates to the shift in the relative power of a party within the ruling majority. Randomly distributing extra votes to a party leads to significant changes in the relative size of parties within ruling majorities in the councils. How these changes eventually impact policies is an on-going conceptual debate. A sound theoretical possibility, but for which to our knowledge no causal evidence exists, is that the change in the bargaining power of parties spills over to the choice of cabinet members who are ultimately in charge of drafting the budget and implementing policies. We explore this channel by estimating the causal impact of treating a given party on the socio-demographic characteristics of the cabinet members who are directly appointed by the mayor.[7] In line with our findings regarding the role of each party for policies, we document significant causal impacts on cabinet member features, particularly in terms of gender, age, and profession. These results align with the perspective that party ideologies matter for the selection of politicians with different (intrinsic) preferences over policies.

Literature This paper contributes to three main streams of the literature.

Methodologically, we bridge studies that exploit lotteries for econometric identification with empirical work in behavioral political economics on the role of electoral procedures. Ferraz and Finan (2008), for example, exploit random audits of politicians to identify the effect of disclosing information to voters while Ferraz and Finan (2011) and Avis, Fer-

[6]These issues are presumably more salient to each party-specific political identity, as compared, for instance, to education, an issue that is mentioned more evenly across the electoral manifesto of all parties.

[7]The list of cabinet members is proposed by the mayor who needs to obtain the political support of the ruling majority within the council that votes the budget. Cabinets are made up of, on average, 8 members who often have specific expertise but are not formally affiliated with any party or elected politicians. While systematic information on the political affiliation of each of the cabinet members is not available, we can isolate the effect of treating each party on the average characteristics of the cabinet members.

raz and Finan (2018) look at the (corrupt) behavior of politicians. Kendall, Nannicini and Trebbi (2015) and Pons (2018) implement large-scale randomized information campaigns on election outcomes. Recent evidence documents the role of electoral procedures on turnouts (e.g., Fujiwara, 2015; Cantoni and Pons, 2019) and strategic voting choices (Pons and Tricaud, 2018). The (ill-) design of voting ballots has been shown to induce mistakes in vote casting (e.g., Wand et al., 2001; Shue and Luttmer, 2009; Augenblik and Nicholson, 2016). The natural experiment that we study offers a random treatment of votes that are actually distributed to parties, as opposed to the random treatment, of either voters or politicians, with information disclosure. Our results show that the local election voting rules together with the particular design of the ballot papers induced errors and misvotes that effectively resulted in a systematic random reshuffling of votes across parties within coalitions for over a decade. The findings thus demonstrate that even comparatively small perturbations of parties' political power associated to the noise of electoral procedures can have considerable effects on policy outcomes.

This paper also contributes new evidence on the role of parties in policy setting in coalition governments. In theory, if candidates cannot credibly commit over policies, having ideologically motivated parties in majoritarian settings should affect electoral platforms and equilibrium policies (e.g., Alesina, 1988). Evidence obtained exploiting narrow vote margins in RD designs in majority *vs* minority settings (following e.g., Pettersson-Lidbom, 2008 and Ferreira and Gyourko, 2009) is, however, mixed. In the case of multiparty coalitions, theoretical predictions differ relative to whether policies reflect electoral promises or ideologies of the median party, or a compromise between different parties, and the extent to which smaller parties are represented, and in what ways. Folke (2014) proposes a RD design suitable for proportional systems and finds that small parties can impact coalition policies on secondary issues like migration or the environment. The conceptual and empirical role of parties, and the mechanisms of policy formation in coalition governments continue to be debated, see Martin and Vanberg (2014 and 2019) for surveys of this literature.[8] By

[8]In theory, for a given ruling majority, the vote shares and the ideological positions of parties could matter for equilibrium policies (e.g., Austin-Smith and Banks, 1988) though pivotal parties can also impact policies

providing a quantification of the random noise induced by the electoral procedure, our strategy technically differs from RD designs that rest on the implicit assumption of a random (but latent) allocation of marginal votes around thresholds.[9] We observe that empowering a party within majorities can impact coalition policies on multiple issues, irrespective of party size. The effects are detected, however, only when treating parties whose electoral manifesto features prominent issues, with the magnitude of the effects being larger for the more divisive policies. Randomly treating parties within majorities (but not within minorities) also changes the characteristics of cabinet members. This provides novel, although indirect, evidence in line with long-lasting hypotheses that the impact of parties on a coalition's policies is mediated by the appointment of cabinet members (see Laver and Shepsle, 1996 and references therein).

Finally, we contribute on the literature that aims to understand the process of politician selection and policy setting, a main challenge in political economics (e.g., Dal Bó and Finan, 2018). Several studies look at the valence of politicians, as generally proxied by their level of education, documenting the role of economic incentives (Ferraz and Finan, 2009, Gagliarducci and Nannicini, 2013, Dal Bó et al., 2013) and of political career within parties (Galasso and Nannicini, 2011, Mattozzi and Merlo, 2015). Much less is known about the role of political ideologies in the (self-) selection of politicians. In theory, political ideologies should facilitate the match between parties and politicians with heterogeneous policy preferences.[10] The seminal study by Lee, Moretti, and Butler (2004), who show that electoral competition does not impact policies, supports this perspective although only

by bargaining their inclusion in the government (e.g., Morelli, 1999). Isolating the role of parties within majorities in RD designs and studying the possible mechanisms have both proved challenging. Proposed strategies to isolate majority shifts include controlling for observed types of coalitions (Folke, 2014), looking at close thresholds by simulating the allocation of seats (Freier and Odendahl, 2015), and controlling for switches of seats between different majority blocs in the spirit of two-party systems (Fiva et al., 2018).

[9] We estimate average treatment effects on the full sample of running coalitions (rather than local effects at thresholds) and irrespective of whether the parties are eventually represented in the local parliament and in the government. Another advantage of the random treatment is that it allows to isolate the role of unobserved election characteristics including, among others, local idiosyncracies in voter preferences that affect the electoral size of parties.

[10] See Wittman (1989). Theories include Snyder and Ting, (2002), Levy, (2004), Morelli, (2004) and Geys and Vermier, (2014), among others. See also Aldrich (1995) and Caillaud and Tirole, (2002).

indirectly and for a majoritarian setting. Using data for Sweden, Dal Bó et al. (2017) and Dal Bó et al. (2021) find, respectively, that politicians are broadly representative of the population and that the populist party attracts politicians with specific socio-economic backgrounds. To this literature, we contribute causal evidence of the impact of political ideology on the socio-demographic features of appointed policy makers. While we detect relevant changes in age, gender, and occupations of cabinet members, we find no effects for education.[11] Finally, our findings complement work that aims to identify the causal role of exogenous characteristics of politicians for policy decisions.[12]

The paper is structured as follows: Section 2 presents the institutional setup and the ballot order effect while Section 3 looks at the randomization of political power of the main parties. Section 4 looks at the effect on policies while Section 5 at the selection of cabinet members. Section 6 concludes.[13]

2 Electoral Noise: a Natural Experiment

2.1 Institutional background

We focus on municipalities with more than 15,000 inhabitants in Italy, home to about 35 million people and 60 percent of the Italian population.[14] Municipalities provide a wide

[11]Given the evidence on preferences over policies (see also Alesina and Giuliano, 2011 for a survey) our results align with the view that coalitions appoint policy makers with different (latent) preferences. Theoretically, it is not clear why parties with different political ideologies should select politicians of different quality. Cabinet members are more educated than the rest of the population but we find no evidence of significant causal effects of empowering different parties for politicians' level of education.

[12]See Chattopadhyay and Duflo (2004) for causal evidence on the role of policy-maker gender. Extensive correlational studies relate exogenous characteristics of politicians (e.g., gender or ethnicity) to policy implementation (e.g., Duflo, 2012, Juenke and Preuhs, 2012).

[13]The summary statistics and the description of the main variables and data sources are reported in the tables in the appendix that are denoted with the letter S, and V, respectively. Tables and figures relating to robustness checks and further results are denoted with the letter A, and are reported in the online appendix.

[14]Data for year 2011, the last available census in our window of observation (Italian National Institute of Statistics—*Source*: http://demo.istat.it/index.html0). Municipalities are the third-level administrative unit after regions and provinces. In the autonomous region of Sicily the same electoral system applies to municipalities with more than 10,000, rather than 15,000 inhabitants. The distribution of city size is a typical skewed distribution with a mean around 50,000 inhabitants and a standard deviation of about 140,000. See also Table S1 for summary statistics. Electoral rules in the remaining municipalities, with a size below 15,000

range of public goods and services, including local police, primary schools, and social welfare, among others. In addition to transfers from the central government, municipal expenditure is covered by fees on local public goods and services, house property taxes, and a local income tax (within margins set by national laws). Political institutions and the process of policy implementation resemble, on a smaller scale, a national parliamentary system. A city council similar to a parliament is formed, on average, by 25 elected councillors. The mayor, akin to a prime minister, heads a cabinet that is formed on average by 8 members that, like ministers, are in charge of drafting the budget and implementing policies. Candidates for mayor run for election supported by a coalition of parties. Elections can take place in two rounds. A candidate that obtains more than 50% votes in the first round is elected mayor. If this does not happen, then the two candidates with the largest vote shares in the first round compete in a subsequent runoff election. In the case of a runoff, the result of the vote matters for selecting the winning mayor and the associated supporting coalition. Importantly, however, the distribution of votes across parties and the allocation of seats in the council is set proportionally to the votes that each party obtained in the first round of the election.

A super-majority rule ensures that the winning coalition gets at least the 60% of seats in the city council. If the mayor fails to obtain the vote of confidence, the city council is dismissed and new elections are held. The budget drafted by the cabinet must be approved by the city council each year. Similar to a "new parliamentary" form of government, the system is designed to empower the executive, which can always count on a sufficiently large majority, while making it accountable to the ruling coalition.

2.2 Random order of parties and ballot papers

The details of the voting rules, the randomization of the position of parties on the voting ballots, and their particular graphical design create a focal point that translates into a ballot-order effect. As a result, as we document below, a non-negligible share of the votes is

inhabitants, are different, and only one party can rule in the local government.

randomly (re)allocated across parties within each running coalition.

2.2.1 Randomization of the order of parties

Ballot papers display a graphical "block" for each running coalition. The symbols of the parties belonging to each coalition are presented as a vertical list that is reported on the right-hand side of the name of the respective candidate for mayor. The name of the candidate for mayor is vertically centered in the middle of the list of parties supporting her candidacy. The order of the parties within each block is randomized. Given any set of running parties, the lottery pins down a unique graphical structure of the ballot paper, which is distributed to all voters in a given municipality and election year.[15] Figure 1 depicts a fac-simile of a voting ballot.

Figure 1: A BALLOT PAPER

Note: Example of ballot paper from a first round election (facsimile). The order of the blocks (one for each candidate for mayor and their respective supporting coalitions) and the order of the party symbols within each block are randomized.

[15]The running coalitions register at the local electoral office by a certain deadline. The head of the electoral offices then performs the random draw in the presence of police officials and one representative of each of the running parties. While of no direct relevance for our argument notice that also the order of coalitions, that is the position of the graphical blocks associated to different candidates for mayor, is also randomized.

2.2.2 Voting rules and behavioral focal point

The voting procedure can be explained with reference to the sample ballot paper presented in Figure 1, and specifically for the coalition displayed in the lower-left block, which, for convenience is reported again in Figure 2. Voters can either mark a cross to the left of the "Lega Nord" party symbol, corresponding to the name of the candidate for mayor, or somewhere to its right. In both cases, the vote is valid but with very different implications for its allocation to parties within the chosen coalition. All votes marked to the left-hand side of the party symbol list are intended as votes for the mayor and her coalition and, accordingly, are distributed to all parties supporting her candidacy. In contrast, votes cast on the right-hand side are allocated to the party whose symbol is closest to the cross. Voters can also do both (i.e., mark a cross on both the left- and on the right-hand side) without invalidating the vote. In this case, the vote on the right-hand side is allocated to the party.[16]

Figure 2: GRAPHICAL BLOCK OF A COALITION IN A BALLOT PAPER

Notes: Example of a block for a candidate for mayor and the list of associated running parties (facsimile). Votes can be cast both to the left of the party symbol list (corresponding to the name of the candidate for mayor) or to its right (or both). See text for details.

From an experimental design perspective, these voting rules, involving the possibility of casting multiple votes with various patterns and a particular graphical design of the ballot paper, imply a set-up that is relatively fragile in terms of implementation errors. Voters

[16]Furthermore, these two votes do not need to be expressed within the same coalition. This "panachage" rule allows voters to split their preference and vote for a given mayor but chose a party belonging to another coalition. In this case, the vote for the candidate counts in determining the winning mayor, while that expressed for the party counts for the distribution of seats inside the selected running coalition. In practice, however, split votes are rare as documented by the very small differences between the total votes obtained by mayors and the total votes obtained by the coalitions supporting them.

can easily get confused over what they are allowed to do and the implications of different voting patterns. Even comparatively well-informed voters can make mistakes. In particular, voters intending to cast their preference for a given mayor, but not interested in expressing a preference for a specific party may mistakenly mark a cross on the right-hand, rather than the left-hand, side of the block. Voters can also fail to understand that they have also the option of casting a single vote to support a mayor and end up marking crosses on both sides. In both cases, voters may unintentionally allocate their preference to the party whose symbol is randomly aligned with the name of the mayor. The left-right structure within the blocks on the ballot and the vertically centered alignment thus mean that the name of the mayor is a focal point, which can translate into a ballot-order effect induced by a pattern of "horizontal adjacency misvote."[17]

Behavioral analyses have interpreted the existence of ballot-order effects in relation to the limited time available for making a decision in the voting booth. In a context of bounded rationality this may favor heuristic behavior (Kahneman and Frederick, 2002), and some voters may cast preferences following a cognitive reference point (Rosch, 1975), which in our context is the party horizontally aligned with the name of the mayoral candidate. The complexity of the voting system and the electoral law also makes it costly to accurately learn the rules. The literature suggests that in complex settings, it may even be rational to choose a limited level of attention and follow behavioral patterns that minimize the likelihood of making a mistake with greater consequences (e.g., invalidating the vote).[18] Whether such a focal point exists and how relevant it may be in affecting the distribution

[17]The ballot-order effect refers to the relation between the position of candidate names (or party symbols) on the ballot paper and the distribution of votes. Instances of horizontal adjacency misvotes have been documented even in comparatively simple and well-designed voting settings. For instance, votes can be cast in support of little known candidates merely because their name appears horizontally adjacent to that of a popular politician (see Dee, 2007, Shue and Luttmer, 2009). In contrast, when parties are simply listed on the ballot, the first and the last party sometimes tend to receive a higher share of votes (see Taebel, 1975, Ho and Imai, 2006 and).

[18]As analyzed by Van Damme and Weibull (2002) and Gul et. al. (2014) and, in the context of trembling hand equilibria, by Selten (1988) and Pearce (1984), when making decisions in complex settings, individuals may endogenously select their attention level since they are aware of the difficulty of avoiding errors and want to minimize the negative impact of mistakes. In this respect, voting for the party in the focal point can be perceived as a safe strategy since the vote for the mayoral candidate will be valid although it will be allocated to a specific party within the coalition.

of votes across parties are open empirical questions to which we now turn.

2.3 A Ballot order effect

We assemble a novel database on the position of parties on the ballot papers. This information is extracted from raw data on the graphical design of all ballots, kindly provided upon request by the Italian Ministry of Internal Affairs. The data covers all municipal elections held between 2002 to 2012 (with the exception of 2003 for which raw information on ballot papers is not systematically available). Information on the share of votes obtained by each mayoral candidate, the votes allocated to each party, and the number of seats obtained by each party in municipal elections is extracted from the online repository made available by the Ministry.[19] The data allow us to study the existence of a ballot-order effect on the distribution of votes and to estimate its impact on the allocation of seats in the city council across parties, as discussed below.

Figure 3 presents the average vote share of parties grouped by their order in the coalition list as reported on the ballot paper. We focus on coalitions comprised of 3 to 8 running parties.[20] Absent any ballot-order effect, the average vote share obtained by a party should not depend on the order of the parties listed in the coalition on the ballot paper.[21] The data reported in Figure 3 shows, however, that parties that are randomly located in the focal position, that is to the right of the name of the respective mayoral candidate, systematically receive a higher share of votes. For instance, for coalitions consisting of three parties, the party ordered as second, or that is located exactly to the right of the mayoral candidate's name on the voting ballot, has around a 4 percent higher vote share than the average.

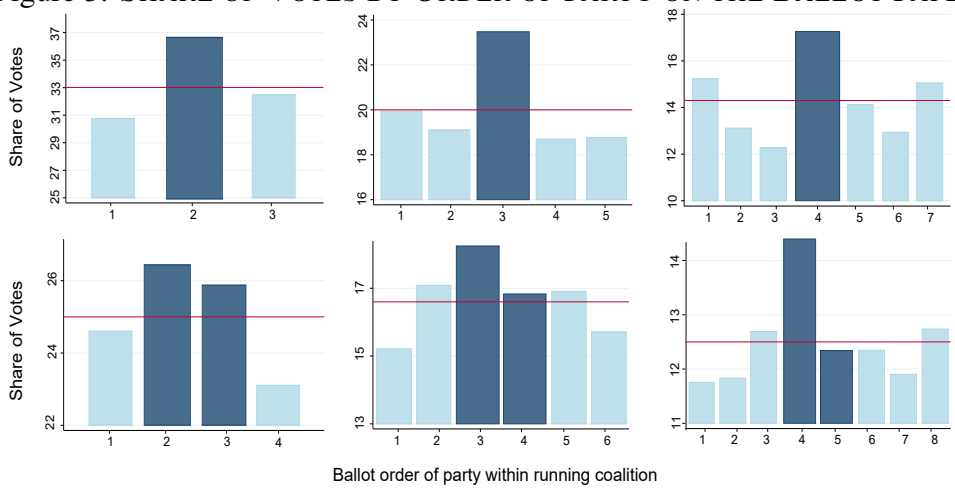
The existence of a focal point on the ballot paper can be detected for coalitions of any size. The magnitude of the effect varies slightly depending on the number of parties. A

[19] Data can be directly accessed online at: http://elezionistorico.interno.it/. Variable description and data sources are reported in Tables V1 and V2, while summary statistics are presented in Tables S1 and A1.

[20] For coalitions formed by two parties there is no obvious focal point. The number of coalitions with less than three and more than eight running parties is very low and the results are not sensitive to their inclusion.

[21] Specifically, for a coalition formed by N parties, the average vote share of a party in any of the positions (say e.g., the first) should be $1/N$ given the randomization of the order of parties on the ballot and the law of large numbers.

Figure 3: SHARE OF VOTES BY ORDER OF PARTY ON THE BALLOT PAPER



Notes: The graphs report the average share of votes (within running coalitions) as function of the random order of the party symbol in the list of parties in the same running coalition; that is, the order in the assigned graphical block of the ballot paper associated to each respective mayoral candidate. Graphs refer to coalitions with a number of running parties between 3 to 8. The dark bars indicate the party in the focal position (i.e., aligned with the name of the mayoral candidate). For coalitions with a even number of parties (reported in the second row) the dark bars indicate the two parties closest to the name of the mayoral candidate. The horizontal red line represents the theoretical share of votes each party would receive absent any ballot-order effect. The graphs report average vote shares for about 12,000 observations for parties running in a given municipality and election year.

unique focal position is clearly detectable for coalitions with a odd number of running parties. In coalitions with an even number, both parties located to the right of the mayoral candidate's name tend to receive a boost in votes, with the party located just above gaining slightly more. This further reinforces the view that the behavioral focal point is related to the alignment of parties with the name of the candidate for mayor.

2.4 Empirical specification

The identification strategy involves estimating the average treatment effect, ATE, and can be obtained by comparing treated and non-treated parties in specifications such as

$$Y_{i,e,m} = \beta_0 + \beta_1 T_{i,e,m} + \theta_n + \delta_1 X_m + \delta_2 V_{e,m} + \delta_3 M_{e,m} + \varepsilon_{i,e,m}. \quad (1)$$

This set-up allows to study the causal effect of the randomization of political power on sev-

eral outcomes that in specification (1) are generically denoted by $Y_{i,e,m}$. The variable $T_{i,e,m}$ is a dummy equal to one if party i, running during election e, in municipality m, is treated, that is randomly placed in the focal position, and zero otherwise.[22] We include fixed effects for the number of parties in the running coalition, denoted by θ_n, since the probability of being treated, and possibly the magnitude of re-allocation of votes, depends on the number of parties running in each coalition. As baseline, we also include a dummy variable for elections taking place before and after 2009, as a change in the national election system led to a re-organization and re-naming of the main national parties (further discussed below). Some specifications also include a set of time invariant geographical characteristics of the municipality X_m, and condition on further covariates in terms of electoral outcomes $V_{e,m}$ and mayor's characteristics $M_{e,m}$.

2.5 Randomization of votes within coalitions: all parties

Table 1 reports the results obtained by estimating the model (1) on the full sample comprising all parties that participated in all elections in the period 2002-2012 (except 2003 due to a lack of data) in running coalitions with at least three, and maximum eight, parties. The dependent variable is the share of votes within coalitions.[23] The results in column (1) document that running parties within coalitions that are randomly allocated to the focal point on the ballot paper experience an increase in vote shares of around 3 percent (see summary statistics in Table S1).[24]

Column (2) extends the specification by accounting for covariates (see Tables A1 and V2 for summary statistics and details on variables and data sources). A first set of co-

[22]The treated party is that whose symbol is located at the focal point, defined as follows: in coalitions with an odd number of parties, the treated party is that to the immediate right of the mayoral candidate's name. To be conservative, in the regression analysis reported below, for coalitions with an even number of parties we code as focal both parties near the mayoral candidate's name . Results are very similar when coding as focal only the party listed just above to the right of the candidate's name.

[23]In Table A3, in the online appendix, we replicate the same exercise with: share of councilors, number of councilors, probability of having at least one councilor, showing sizable effects.

[24]Results on the ballot-order effect are practically identical with and without the inclusion of this election period fixed effect. Regardless, we always include it for purposes of consistency with the analysis focusing on the main parties, reported in Section 3.1 below.

Table 1: A BALLOT ORDER EFFECT (ALL PARTIES)

Dependent Variable:	SHARE OF VOTES W/I COALITION					
	ALL PARTIES		WINNING		NON-WINNING	
	(1)	(2)	(3)	(4)	(5)	(6)
TREATED PARTY	2.934***	2.934***	3.211***	3.211***	2.716***	2.717***
	(0.426)	(0.427)	(0.620)	(0.622)	(0.563)	(0.565)
Running Parties FE	✓	✓	✓	✓	✓	✓
Post 2009 FE	✓	✓	✓	✓	✓	✓
Geographical Characteristics	✗	✓	✗	✓	✗	✓
Mayors Characteristics	✗	✓	✗	✓	✗	✓
Election Characteristics	✗	✓	✗	✓	✗	✓
Mean Dependent	20.66	20.66	18.87	18.87	22.15	22.15
Observations	11,964	11,964	5,448	5,448	6,516	6,516
R-Square	0.14	0.14	0.11	0.11	0.14	0.14

Notes: The dependent variable is the party share of votes within coalitions. See Table V1 for details and Table S1 for summary statistics. Treated Party is a dummy variable equal to one if the party is in the focal point on the ballot paper and zero otherwise. The sample includes coalitions with greater than two running parties in municipalities with more than 15,000 inhabitants in the period 2002-2012 (see text for details). Description of covariates, data sources, and summary statistics are reported in Tables V2 and A1. OLS regressions with robust standard errors clustered at the legislature level in parenthesis. *, **, and *** denote significance levels at 10%, 5%, and 1%, respectively.

variates, labeled geographical characteristics, includes information on the population size and location of the municipality.[25] A second set of covariates account for the socio-demographic characteristics of the mayor.[26] A final set of covariates includes information on the characteristics of each specific election and further political aspects beyond those of direct interest.[27] While some of these covariates are outcomes of the electoral process, and might create problems of bad control, it is still interesting to explore their role for the

[25]This set of covariates includes information on the municipal area (in square kms), population size, and level of urbanization. We account for location specificities in terms of distance from water bodies (from the sea, rivers, and the presence of any water course, or whether the city is on the coast). We also control for altitude and the share of mountains, which can be informative on remoteness, as well as account for the level of seismicity of the municipality.

[26]This set includes age, gender, level of schooling, as well as the mayor's profession (particularly, as discussed further below, we control for whether the mayor is an employee or a professional). Finally, we account for whether the mayor is in her second term.

[27]We include information on electoral turnout, total share of votes of the mayor, whether the mayor was elected in a run-off election and, in this case, the existence of alliances (with and without seats). To account for possible effects related to the size of political constituencies, we control for the number of citizens entitled to vote as well as the size of the city council (in terms of total number of seats). Finally, we include a dummy for the very small number of cases where, due to split votes, the coalition receiving the majority of votes does not coincide with the winning mayor (labelled minority mayor).

results in conditional and unconditional specifications. We find that the point estimate and the explanatory power of the specification in column (2) are not affected by the inclusion of controls. This offers a first indication that the probability of being focal is indeed random and therefore orthogonal to the characteristics of the municipality, the winning mayor, and the characteristics of the election. This should be expected, by the randomness of the treatment and the law of large numbers, since the variable of interest refers to the relative allocation of votes within running coalitions.

A relevant feature of this quasi-natural experiment is that the randomization of the order of the universe of running parties conceptually implies that the exogenous reallocation of votes within coalitions occurs irrespective of whether a given running coalition eventually wins the elections or not. We replicate the analysis for the sub-samples of ruling (winning majority) and non-ruling (non-winning) coalitions. The results, reported in columns (3-4) and (5-6), respectively, confirm the baseline patterns. The ballot-order effect is, on average, slightly larger in ruling coalitions, although the point estimates of the effect are not statistically different across the two sub-samples and from the average of the full sample. In these samples as well, accounting for the large sets of covariates leaves the point estimates and the explanatory power of the empirical specification essentially unaffected. Finally, we explore the existence of heterogeneous effects in terms of characteristics of the population that might affect the likelihood of misvotes associated to the ballot order. The results document that the intensity of the ballot order effect is essentially unaffected by population heterogeneity in terms of these proxies for civic capital, average education of voters and information acquisition.[28]

The results show that the randomization of the order of parties within running coalitions and the existence of the behavioral focal point effectively imply that over the decade 2002-2012 a share of votes was randomly re-allocated across parties supporting the same candidate for mayor. In the largest sample, this amounts to about 12,000 observations

[28]We look at the number of non profit organizations, illiteracy rates, education at university level and intensity of newspaper readership in the population. We look, in particular, at whether a given population displays proxies of social capital, education or information acquisition above or below the median in the sample. For space reasons the results are unreported.

covering around 1,300 elections in approximately 600 municipalities.

3 Randomizing Political Power of the Main Parties

The (unintended) quasi-natural experiment allows us to identify the causal effect of reshuffling votes within coalitions by looking at parties running in a given election and a given municipality as units of observation. We next exploit the random perturbation of votes to identify the implications of empowering a party with a specific political ideology. We concentrate attention to the main parties that also run at the national level.

3.1 The Main Parties

Over the decade under consideration, the Italian political landscape was characterized by four main (blocks of) national parties that also ran at the local level, labelled here as *Left-Wing*, *Center-Left*, *Center-Right,* and *"Populist Right,"* the latter referring to the "Lega Nord" party.[29] For these parties, it is also possible to exploit, as further discussed below, a coding of political identities using information from electoral manifestos at the national level. The importance of the main national parties at the local level means they have a comparatively large presence in ruling coalitions across municipalities. These parties alone jointly accounted for about 70 percent of the total votes in local elections.

The experiment allows studying the causal effect of randomly increasing the political power of each of these parties within ruling coalitions by comparing cases in which a given party is treated to those in which the same party is not treated. Recall that the unit of observation is a party, i, running in an election year, e, in municipality, m. The effect of voting a specific party, for instance the *left-wing* party, is identified by comparing the cases in which

[29]The main national parties ran for election both at the country and local level in a large number of municipalities. Municipal elections involve the participation of a large number of parties, but in many cases these take the form of so-called "civic lists" that only run in a given municipality and for a specific election round. These lists are expressions of local political initiatives and are often created in support of a mayoral candidate, or to push local issues.

this party is randomly treated to those in which the same party is not treated.[30] The implementation of the identification strategy requires restricting attention to the sub-sample of ruling coalitions that include each of the main parties. This involves a reduction in sample sizes, and the associated precision of the estimates. That said, the large presence of each of the main parties in local ruling coalitions still allows to run regressions on relatively large samples: from almost 600 observations for the center-left party, to around 200 observations for the populist right party (samples are further slightly reduced when conditioning on all covariates). Summary statistics on votes and seats for the sub-samples of ruling coalitions that include each of the main parties are reported in Table S1.[31]

The municipal electoral system presented in Section 2.1 did not change over the observation period. In 2009, however, a change in the voting rules (in a majoritarian direction) at the national level induced some national parties to strategically change their name and, in some cases, merge together with similar parties. While these changes affected political competition at the national level, they did not alter the overall political spectrum or the relative positioning of the main parties in terms of their broad electoral manifesto.[32] To account for the possible role of the effects associated to change in party names, we nonetheless include a period fixed effect in terms of a pre-post 2009 time dummy (see also Section 2.4).

[30]The effect of treating a given party should be interpreted as resulting from empowering this specific party relative to the other parties in the same running coalition that end up being represented in the city council. Recall that running coalitions typically involve the participation of several parties, often including civic lists. Only a subset of running parties typically receive enough votes to be allocated a seat in the city council (as studied also below). In some cases, more than one main national party can be observed in the same running coalition, e.g., those including both the left and the center-left or center-right and populist right.

[31]The geographic distribution of the observations in the estimation samples is reported in Figure A1 in the online appendix. The figure shows that ruling coalitions that include each of the main parties tend to be evenly distributed throughout the Italian territory with the exception of the populist right, which during the observation period was part of ruling coalitions mostly in the center-north of the country. Summary statistics of covariates by sub-samples of running coalitions by parties are reported in Tables A1.

[32]In particular, the *Center-Left* and *Center-Right* parties ("Democratici di Sinistra" and "Forza Italia") ceased to exist, becoming instead the "Partito Democratico" and "Il Popolo della Libertà", respectively. On the extremes of the political spectrum, the *left-wing* "Partito dei Comunisti Italiani" and "Rifondazione Comunista" parties were replaced by the "Sinistra Ecologia Libertà" party. Finally, the *right-wing* "Lega Nord" party did not change its name during the period of analysis.

3.2 Treating Parties: Votes and Councillors

In this Section, we study the effect of randomly treating each of the main national parties for the votes within ruling coalitions and relative composition of the city council. Section 3.3 discusses an extensive set of checks of the randomization of the treatment, necessary to interpret the results as causal effects of a specific party within ruling coalitions. A finding worth mentioning already at this stage is that the treatment does not affect the probability that a running coalition wins the election. This is consistent with the existence of adjacency misvotes within, but not across, the graphical blocks of running coalitions. The randomization does not induce sample selection in terms of the probability that a treated party is part of a majority coalition.

Votes and seats within ruling coalitions We first study the effect of treating each of the main parties on the share of votes within ruling coalitions. The results, reported in Table 2 panel A, confirm the existence of a systematic re-shuffling of votes within ruling coalitions that is, on average, around 3.5 percent. The magnitude of the effects slightly differ across sub-samples, but is in fact comparable to the average effect of 3.2 percent in the sample of all parties in ruling coalitions (i.e., around 5,000 observations, see Table 1 columns (3-4)). The relative impact of the randomization of votes varies, however, across parties due to their different average size (vote share). The relative effect of the treatment is larger, and substantial, for the smaller parties. To facilitate interpretation of the magnitudes, Table 2 reports the mean of the dependent variable. For the left-wing party, for which the average share of votes within coalitions is 9.7 percent, the point estimate of 2 percent implies that the random treatment increases the vote share for this party within the coalition in the order of 20 percent. For the populist right, with an average share of votes of 20.9 percent, the relative effect is even larger and in the order of 30 percent. For the biggest parties – the center-left and the center-right (with 47 and 43 percent of votes within ruling coalitions) – the relative effect is lower in magnitude but still around 10 and 8 percent, respectively.

Votes shares are transformed into seats in the city council, and therefore elected coun-

Table 2: RANDOMIZING POWER WITHIN RULING COALITIONS: MAIN PARTIES

A. Dep. Var:	SHARE OF VOTES W/I RULING COALITION							
	LEFT		CENTER-LEFT		CENTER-RIGHT		POPULIST R.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TREATED PARTY	1.949***	2.009***	6.112***	4.438***	2.692*	3.265**	7.932***	5.951**
	(0.573)	(0.575)	(1.451)	(1.171)	(1.537)	(1.444)	(2.670)	(2.407)
Mean Dependent	9.64	9.64	47.20	47.20	42.99	42.99	20.94	20.94
Observations	439	439	578	578	381	381	150	150
R-Square	0.19	0.29	0.38	0.64	0.31	0.44	0.37	0.55
B. Dep. Var:	SHARE OF SEATS W/I RULING COALITION							
	LEFT		CENTER-LEFT		CENTER-RIGHT		POPULIST R.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TREATED PARTY	2.220***	2.302***	6.215***	4.466***	3.101*	3.716**	8.748***	7.070**
	(0.706)	(0.710)	(1.690)	(1.384)	(1.819)	(1.726)	(3.108)	(2.873)
Mean Dependent	8.06	8.06	53.18	53.18	46.94	46.94	20.63	20.63
Observations	439	439	578	578	381	381	150	150
R-Square	0.13	0.22	0.34	0.60	0.24	0.37	0.32	0.50
Running Parties FE	✓	✓	✓	✓	✓	✓	✓	✓
Post 2009 FE	✓	✓	✓	✓	✓	✓	✓	✓
Geographical Ch.	✗	✓	✗	✓	✗	✓	✗	✓
Mayors Ch.	✗	✓	✗	✓	✗	✓	✗	✓
Election Ch.	✗	✓	✗	✓	✗	✓	✗	✓

The dependent variable is the party share of votes within a coalition. See Table V1 for details and Table S1 for summary statistics. Treated Party is a dummy variable equal to one if the party is in the focal point on the ballot paper and zero otherwise. The sample includes ruling coalitions with more then two running parties in municipalities with greater than 15,000 inhabitants in the period 2002-2012 (see text for details). Columns (1) and (2) include ruling coalitions with the left-wing party; columns (3) and (4) include ruling coalitions with the center-left party; columns (5) and (6) include ruling coalitions with the center-right party; column (7) and (8) include ruling coalitions with the populist right party. Description of covariates, data sources, and summary statistics are reported in Tables V2 and A1. OLS regressions with robust standard errors clustered at the legislature level in parenthesis. *, **, and *** denote significance levels at 10%, 5%, and 1%, respectively.

cillors, by applying the widely used "d'Hondt method".[33] Results in Table 2 panel B document that treating each of the main parties implies an effect on the share of councilors within ruling coalitions that is roughly proportional to that of votes being, on average, around 3.8 percent. The relative effect is again larger for the smaller parties. Treating the biggest parties—that is, the center-left and the center-right, which on average collect 53 and 47 percent of seats within their coalitions—increases the percentage of councillors

[33]The method is roughly proportional but not fully neutral in mapping the proportion of votes into the proportion of seats and, in particular, tends to favor relatively large parties.

allocated to each of these parties by around 8 percent. For the left and the populist right, which are on average allocated 8 and 20 percent of seats, being randomly treated implies a boost in the shares of seats within their coalitions in the order of 27 and 42 percent, respectively.[34]

3.3 Verifying randomization

In what follows, we briefly discuss the conditions for a causal interpretation of the results. The treatment of a specific party must be as good as random and its effect monotonic. Furthermore, to interpret the findings as resulting from a relocation of power within ruling coalitions, treating a party must not affect the likelihood that its coalition wins the election. In other words, the treatment should not drive selection into the estimation sample. To validate these conditions, we perform a battery of tests, whose results we present below.

Randomness of the treatment of each party The quasi-natural experiment implies that, in all running coalitions, a party is randomly treated with a boost in votes (and seats). We accordingly find that, beyond the samples presented above, the ballot-order effect can be detected for both votes and seats in the council for all parties (ruling and not), as well as when restricting to subsamples by number of running parties (see Table A4). Next, we test whether any of the main parties have a different probability of being treated. The results, reported in Table 3, show that none of the main parties has a significantly different (higher or lower) probability of being treated compared to any other party running in the same coalition. Coefficients are never significantly different from zero and their magnitude is very small compared to the unconditional probability of being treated, which ranges from

[34] We also look at the absolute effect in terms of the total number of seats in the city council (and not within ruling coalitions). Treated parties obtain, on average, an extra half seat, which is non-negligible since ruling coalitions are, on average, formed by 16 councillors. The relative increase for the bigger parties is around 7 percent while for the smaller parties is even more substantial at around 25 and 35 percent for the left-wing and the populist right party, respectively. In addition, the effect of the treatment on the probability of a party entering the city council, e.g., the probability of having at least a sizable representation (around 15 percent), is statistically significant for the party with the lowest representation in ruling coalitions (the left-wing party). Results are reported in Table A5 in the online appendix.

0.33 to 0.125 in running coalitions comprising three to eight parties, respectively.[35]

Table 3: PROBABILITY OF BEING TREATED

Dependent Variable:	BEING TREATED WITHIN RUNNING COALITION							
	LEFT		CENTER-LEFT		CENTER-RIGHT		POPULIST R.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PARTY OF INTEREST	0.012	0.012	-0.000	-0.000	0.014	0.014	0.004	0.004
	(0.017)	(0.018)	(0.018)	(0.018)	(0.020)	(0.020)	(0.036)	(0.036)
Running Parties FE	✓	✓	✓	✓	✓	✓	✓	✓
Post 2009 FE	✓	✓	✓	✓	✓	✓	✓	✓
Geographical Characteristics	✗	✓	✗	✓	✗	✓	✗	✓
Election Characteristics	✗	✓	✗	✓	✗	✓	✗	✓
Mayors Characteristics	✗	✓	✗	✓	✗	✓	✗	✓
Mean Dependent	0.27	0.27	0.28	0.28	0.31	0.31	0.32	0.32
Observations	4,198	4,198	4,893	4,893	4,300	4,300	1,353	1,353
R-Square	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07

The dependent variable is a dummy variable equal to one if each party is in the focal point on the ballot paper and zero otherwise. See Table V1 for details and Table S1 for summary statistics. Estimation sample in each column includes all parties in all running coalitions that include the party of interest. Description of covariates, data sources, and summary statistics are reported in Tables V2 and A1. OLS regressions with robust standard errors clustered at the legislature level in parenthesis. *, **, and *** denote significance levels at 10%, 5%, and 1%, respectively.

Balance tests Conditioning on covariates in terms of geographic characteristics of the municipality, information on the candidate for mayor, and on other outcomes, increases the explanatory power of the regressions in Tables 1 and 2 (as observed by the large increase in the R-square), but leaves the estimated effect of treatment essentially unaffected. This already suggests that the random treatment is orthogonal to observable characteristics of the municipality, elected mayor, and elections. To explore this issue more systematically, we perform various balancing tests and compare treated and control groups, and for each of the main parties and each of the observables. Figure 4 illustrates the results, reporting for each party the standardized estimates of the difference of means between treated and control group (see also Tables A6-A9 in the online appendix for regressions results). This test involves running over 160 balancing tests. Statistical significance at the 5 and 10

[35] We estimate specifications such as: $T_{ie} = \alpha_1 P_{ie} + \alpha C + \varepsilon_{ie}$ where T_{ie} is a dummy equal to one if the party's symbol is in the focal point, and 0 otherwise, while the variable P_{ie} is a dummy equal to 1 if the focal party is a specific party (e.g., the left), and 0 otherwise. We run unconditional and fully conditioned specifications.

percent levels are depicted in green and red, respectively. To facilitate interpretation of the magnitudes of the differences of standardized means, the vertical dashed lines depict a conservative threshold of 0.2 standard deviations, as suggested by Imbens and Rubin (2015). The result document that around 5 and 10 percent of tests are significantly different from zero at the respective levels of significance, and with no systematic patterns on any specific variable, and the point estimates largely lies within 0.2 standard deviations bounds. These findings are further reassuring in that treated and non-treated parties are not systematically different in any particular observable dimension.

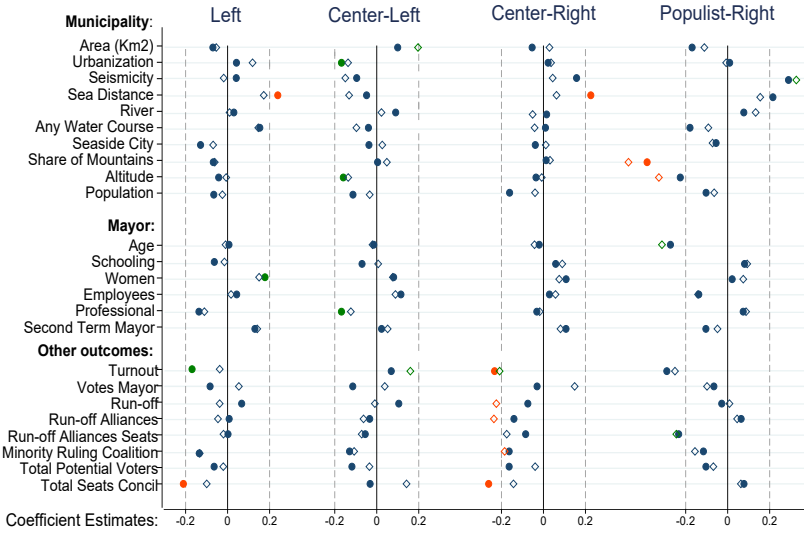
Monotonicity of the treatment. Figure 5 depicts the cumulative distribution function, cdf, of vote shares and seat shares within the ruling coalition for the treated and non-treated parties. The results show that the distribution of the former first order stochastically dominates that of the latter for each of the main parties, implying that the treatment on votes and seats is monotonic. These patterns also imply that the probability of being treated does not depend on the size of the party.[36]

Treatment and probability of winning the election Recall that the existence of horizontal adjacency misvotes associated to the list of parties supporting a mayor and the particular graphical structure of each block imply that we expect the treatment to reshuffle votes within but not across the different coalitions on the ballot paper. In line with this conjecture, the results in Table 4 show that randomly treating any of the main parties has no impact on the probability that their candidate for mayor wins the election.[37] The evidence confirms that while the treatment systematically reshuffles votes within coalitions (as documented in Tables 1 and 2), it does not affect the distribution of votes across coalitions and, in particular, does not affect the likelihood that a party is included in the estimation sample

[36] As should be expected from the randomization of the treatment, first order stochastic dominance in vote and seat shares within coalitions holds for all parties (above and beyond the main ones) and irrespective of the number of parties in running coalitions.

[37] We test whether treating a party affects the probability that the respective candidate for mayor wins the election. To this end, we build an extended sample with all running coalitions (winning and non-winning), which includes each of the main parties.

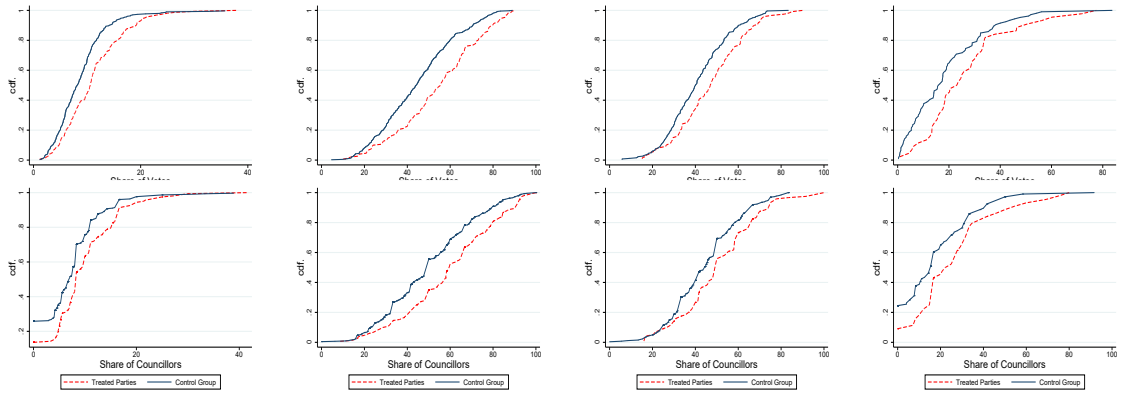
Figure 4: BALANCE TESTS



Notes: Dots depict the (unconditional) normalized mean difference between the average value of each variable in the treatment and the control groups. Diamonds portray the coefficient estimates of regressions that also condition on number of running parties fixed effect, as in equation (1). Red and green coefficients are significantly different from zero at the 5% and 10% levels, respectively. The vertical dashed lines indicate the threshold of 0.2 standard deviations. Variable descriptions and data sources are reported in Tables V2. All unconditional and conditional estimates are reported in Tables A6-A9, in the online appendix. In Table A10 we also report balance tests on lagged fiscal policies.

of ruling coalitions.

Figure 5: MONOTONICITY OF TREATMENT



(a) LEFT (b) CENTER-LEFT (c) CENTER-RIGHT (d) POPULIST RIGHT

Notes: Each graph reports the cumulative distribution function (cdf) of the shares of votes (first row), and of the share of councillors (second row), obtained by each party when treated (red line) and when not treated (black line). Each subsample includes all ruling coalitions containing a given party.

Table 4: PROBABILITY OF BEING IN A RULING COALITION

Dependent Variable:	BEING IN A WINNING COALITION							
	LEFT		CENTER-LEFT		CENTER-RIGHT		POPULIST R.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TREATED PARTY	0.033	0.013	0.076	0.037	0.030	0.033	-0.055	-0.038
	(0.055)	(0.043)	(0.060)	(0.048)	(0.056)	(0.045)	(0.061)	(0.041)
Running Parties FE	✓	✓	✓	✓	✓	✓	✓	✓
Post 2009 FE	✓	✓	✓	✓	✓	✓	✓	✓
Geographical Characteristics	✗	✓	✗	✓	✗	✓	✗	✓
Mayors Characteristics	✗	✓	✗	✓	✗	✓	✗	✓
Election Characteristics	✗	✓	✗	✓	✗	✓	✗	✓
Mean Dependent	0.60	0.60	0.61	0.61	0.43	0.43	0.49	0.49
Observations	757	757	997	997	991	991	332	332
R-Square	0.10	0.48	0.07	0.41	0.08	0.49	0.05	0.55

Notes: The dependent variable is a dummy variable equal to one if the mayoral candidate, running with a coalition of parties that includes the party of interest, wins the election and zero otherwise. Description of covariates, data sources, and summary statistics are reported in Tables V2 and A1. OLS regressions with robust standard errors clustered at the legislature level in parenthesis. *, **, and *** denote significance levels at 10%, 5%, and 1%, respectively.

Treating Minority Coalitions Recall that, from the analysis of the universe of running coalitions reported in Table 1, the random reallocation of votes takes place both within majority and minority coalitions. We replicate the analysis of Table 2 restricting attention to the main parties in losing, rather than winning, coalitions. The results confirm the baseline findings and offer further support on the random nature of the treatment by showing that the ballot order effect induces a reshuffling of votes, and of seats, also within minority coalitions.[38]

4 Electoral Platforms and Policies

The results thus far document that the randomization of votes impacts the composition of councils and implies a reshuffling of parties' political power in terms of seats within ruling coalitions. The effect is quantitatively larger, in relative terms, for the smaller parties. In what follows, we look the electoral manifesto of each of the main parties and isolate the

[38]Table A20 reports the results for losing coalitions with at least 20 percent of the votes where the seats are typically to be distributed to more than one party also within minorities. Results with all losing coalitions are similar to the ones for vote shares but less precise.

impacts of the random perturbation of political power on policies.

4.1 Party Electoral Manifesto

We look at the electoral manifesto of each party at the national level. Specifically, information on mentions of various issues by each party is extracted from the database of party manifesto by Volkens et. al. (2018).[39] The first, labelled *Welfare*, refers to whether a party's electoral manifesto favourably mentions the need to protect underprivileged social groups and to implement a fair distribution of resources, and supports the expansion of the welfare state and public social services.[40] The second dimension refers to mentions of the need for *Education* expansion at all levels (i.e., not specifically for underprivileged social groups). The third, defined as *Free Market*, refers to supportive mentions of free market, protection of private property rights, and of freedom of personal initiative.[41] The final dimension, called *Security*, refers to the need to increase expenditure in safety and defense.[42] The relative positions of each party with respect to these broad issues are depicted in Figure 6. To better visualize the relative ideological positioning of the different parties, the indices are normalized using the score of the party most favorable towards each respective policy dimension. The horizontal lines portray, for each issue, the average score across all parties.

The mentions of welfare and education in the manifesto of the left-wing party are notably more prominent, while mentions of the center-left party on all dimensions remain around the mean. Education seems not to be a divisive issue, being mentioned around the mean and quite evenly across all of the electoral manifestos with the exception of the left-wing party. Attitudes towards welfare are instead more divisive, with the populist right in

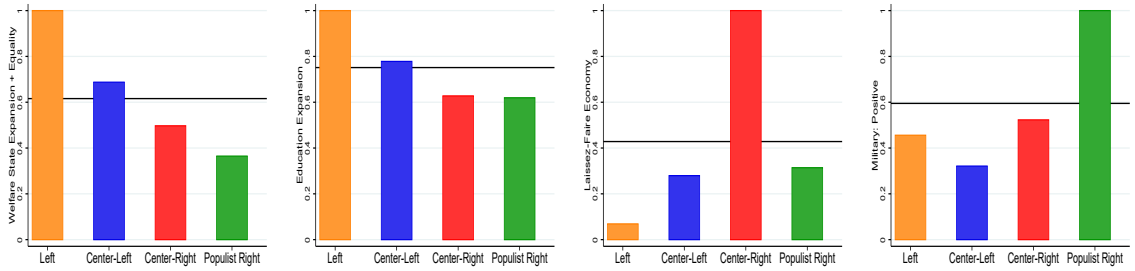
[39]Electoral manifesto at the country level offer the best representation of each party's electoral identity in terms of broad ideological location across different issues in the policy space. These are conceptually unrelated to idiosyncracies driven by unobserved local conditions. Details are reported in the online appendix.

[40]These services comprise, in particular, health care, child care, elderly care and pensions, and social housing. Note that this dimension does not include education, which is coded as a separate issue.

[41]This dimension specifically includes favourable references to: laissez-faire economy; superiority of individual enterprise over state and control systems; private property rights; personal enterprise and initiative; need for unhampered individual enterprises.

[42]See Table A11 for the detailed description of the four dimensions.

Figure 6: MENTION OF ISSUES ON ELECTORAL MANIFESTO



(a) WELFARE (b) EDUCATION (c) FREE MARKET (d) SECURITY

Notes: Relative positions of the different parties with regard to each issue are computed using information from the Comparative Manifestos Project, CMP, by Volkens et. al. (2018). See text and online appendix for details. *Source*: https://manifesto-project.wzb.eu/datasets.

particular showing fewer favorable mentions of this dimension. Positions on free market also vary across parties, being by far the most prominent issue for the center-right party. Meanwhile, like education, issues relative to security are not clearly differentially mentioned across the parties, with the relevant exception of the populist right for whom this issue is clearly salient.[43]

4.2 Public Policies

Data We build measures of fiscal policies by extracting information on current expenditure and taxation from the budgets of Italian municipalities. Information is available from the Italian Ministry of Internal Affairs.[44] Specifically, we look at expenditure chap-

[43]The data on party's manifesto also allow to compute an ideological index using a summary measure obtained by averaging scores on a wider set of dimensions. While not of direct interest for our analysis, it is useful for locating each party on a traditional left-right scale. The ideological positions of the left, center-left and center-right parties follow an intuitive ordering from left to right, with the center-left being, in fact, closer to ideological neutrality than the center-right. Furthermore, the populist right party pushes an agenda based on federalism and local (fiscal) autonomy. While this is an important aspect of the party's identity over the observation period, it is not studied here. The emphasis on local autonomy also implies that its ideology is less markedly characterized by the nationalistic values typically associated with rightist ideologies. See Figure A2 in the online appendix.

[44]Data can be accessed online at http://finanzalocale.interno.it/apps/floc.php/in/cod/4. Variable descriptions and data sources are reported in Tables V1. For fiscal policies, the unit of observation of the dependent variable is at the yearly level within each legislature ruled by a given majority, which lasts around 3 to 4 years.

ters related to the policy issues discussed above. All variables are measured in per-capita terms. In the observation period, local current expenditure in the around 600 municipalities is roughly 750 euro per capita, and covers more than 35 million people for a total of around 30 billion euros per year—a substantial share of total local public expenditure in Italy. Around 530 euros per capita are available to cover the different chapters of public expenditure year-by-year (net of the payment of public employee salaries).[45] For welfare policies, we look at current expenditure on social services. For education, we consider total current expenditure on public education (at all levels), which jointly amounts to around 200 euro per capita and absorbs a sizable part of the municipal budget, accounting for around 15 to 25 of the resources available for current expenditure (net of the payment of public salaries). For policies relating to security, we look at current expenditure on local police and justice services, which amounts to around 50 euro per capita and absorbs around 10 percent of the available net resources. These three expenditure chapters alone absorb more than 50 percent of current net resources. Finally, as a proxy for policies that reflect attitudes towards free markets, protection of private property, and limited taxation, we look at the revenues per capita on the municipal real estate tax on home properties. In the observation period, this source of local revenue amounts to around 190 euro per capita or 35 percent of the total net current expenditure per capita.[46]

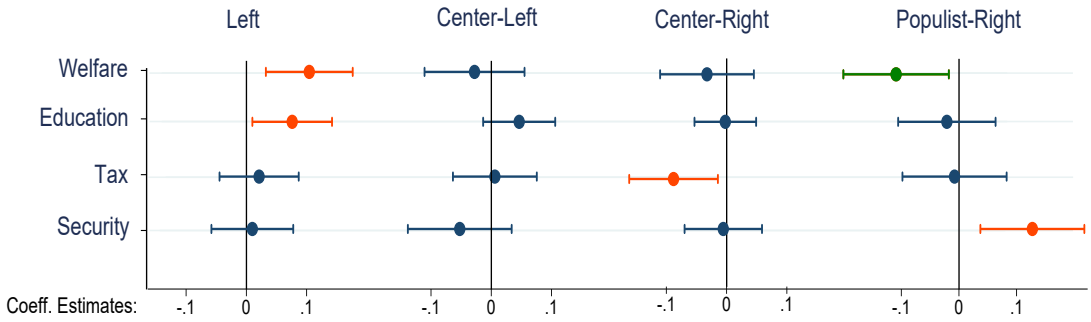
To isolate the role of party ideologies in a coalition government, we estimate the causal effect of randomly treating a specific party with an exogenous increase in their share of votes within ruling coalitions. As discussed above, this implies comparing the cases in which, for instance, the left-wing party is randomly treated by a boost in political power to those where the same party is not treated. Figure 7 depicts the estimated impact of treating each party on each of the policies. The figure reports the point estimates of fully

[45] Around a third of ordinary current expenditure covers public employee salaries. This expenditure essentially depends on the stock of public employment and is little affected by short-term changes in political choices.

[46] The tax, labelled ICI (*Imposta Comunale sugli Immobili*) was eliminated by the government headed by Prime Minister Berlusconi (at the time leader of the center-right) in 2011 and subsequently replaced by another tax called IMU (*Imposta Municipale Unica*). Thus for tax properties, the variable, and the results, refer to the period up until 2011 (in last year of our sample, 2012, the new tax was not yet in place).

conditioned specifications, which include fixed effects and all covariates (unconditional effects of treating each party are reported in Table A12).[47]

Figure 7: EFFECT OF TREATMENT ON FISCAL POLICIES



Notes: The graph reports coefficient estimates of random treatment of each party estimated as in equation (1) in fully conditioned empirical specifications that account for all fixed effects and covariates. *Dependent variables*: current expenditure per capita devoted to public social services (welfare); current expenditure per capita devoted to public education (education); revenues per capita from the real estate tax on home properties (Tax); current expenditure per capita devoted to local police and justice services (security). *Treated Party* is a dummy variable equal to one if the party is randomly located in the focal point on the ballot paper and zero otherwise. *Sample*: the different sub-figures report the estimates using the sample of all ruling coalitions containing the respective party. Coefficients in red (green) are significant at the 5% (10%) levels, respectively. The bars illustrate confidence intervals at limit (10%) significance level. Empirical results and further statistics are reported in extensive form in Table A13 in the online appendix.

The regression results document that randomly treating the left-wing party impacts policies implemented by the coalition in line with the saliency of different issues mentioned in the party's electoral manifesto. In particular, a significant increase in spending can be detected for welfare and education, the two issues that are comparatively more emphasized. The effect is large, in the order of 10 and 8 percent, respectively. In contrast, empowering the center-left does not significantly alter the allocation of resources in any specific policy dimension. Recall that when treated all parties, including the bigger ones, experience a significance increase in votes and seats shares. The lack of impact, when increasing the center-left party power, is consistent with the fact that no policy issue stands out clearly in its electoral manifesto. In fact treating the center-right party, that is of comparable size to

[47]Looking at realized differences in vote shares across parties would not allow to isolate the causal effect of the role of party for coalition policies. Results obtained by regressing the policies implemented by the coalition on the share of votes (or seats) allocated to a given party are, moreover, at odd with each party political manifesto. Furthermore, no effects can be detected for small parties. See Figure A5 in the online appendix.

the center-left, leads to significant reductions in the level taxation of real estate properties, with an effect in the order of 9 percent (while no effects are detected for other policies). This is in line with the party's evident manifesto emphasis on laissez-faire, protection of private property, and reduction in taxation. While these issues stand out as salient for this party both in absolute and relative terms, mentions of the other dimensions does not differ much from the average. Finally, the largest effect when treating the populist right party is on security expenditure, which increases by around 14 percent. Interestingly, and again contrary to insights that would be obtained estimating the role of observable differences in vote shares across coalitions, treating the populist right leads to a significant reduction, of around 10 percent, in welfare spending—the issue that is least mentioned in comparative perspective across parties (and is less salient even compared to the center-right).

Finally, as mentioned above, treating the main parties increases their share of votes and seats also when they belong to losing coalitions. This allows us to explore the (latent) role of bargaining power within ruling (and non ruling) coalitions that, as discussed in Section 1, proved empirically hard to isolate in the existing literature. The results shows no effect of the treatment on policies, when parties are not ruling (see Figure A3 in the online appendix). These findings provide further evidence that the effect on polities cannot be simply attributed to an increase in representation in the city council but rather to a change in bargaining power of parties within ruling majorities.

5 Selection of Cabinet Members

The super-majority rule ensures that the winning coalition is allocated at least 60 percent of the seats in the city council. This implies that the majority can govern without having to compromise with minorities to pass the vote over the yearly budget. The mayor's ability to push initiatives depends, however, on the support from the ruling coalition in the city council which is composed of multiple (up to eight) parties. As ministers at the national level, the cabinet members are appointed by the head of the government and can

be, and often are, non-elected politicians. These are the individuals foremost responsible for the design and implementation of fiscal policies. The cabinet drafts the yearly budget, which fixes local taxes on properties, sets the fees for public services, and allocates funds to different chapters of public expenditure. The existence of an involved system of public procurement further implies that the (day-to-day) work of cabinet members is key to factually implementing public projects and realizing public expenditures. According to the literature discussed above, in theory a main channel that maps the relative bargaining power of parties and political goals of parties within majorities into coalition policies relates to the selection of the cabinet. To explore this long-lasting, but hitherto little documented conjecture, we estimate the casual effect of treating each of the parties on the characteristics of the cabinet members that are appointed by the mayor.

Data We retrieved information on the characteristics of cabinet members from the Ministry of Internal Affairs's *Register of Local Politicians*. The database allows to extract a number of relevant socio-demographic characteristics. While systematic data on the political affiliation of each cabinet member is not available, we can nonetheless estimate the causal effect of treating each party on the members' average characteristics. This allows to identify the overall effect of increasing the political representation of a given party on the characteristics of the politicians forming the body that is ultimately in charge of fiscal policies implemented by the coalition. In view of the existing literature, several observable socio-demographic characteristics can be informative on latent individual preferences over public policies. For example, research suggests that older individuals are particularly supportive of social welfare and health expenditure (e.g., MacManus, 1995, Schickler et al. 2003). Women instead display a greater demand for education and, compared to men, are less inclined to trade off welfare and education in favor of investments in military and security (e.g., Page and Shapiro, 2010, Alesina and Giuliano, 2011). Poorer people and low-skilled employees tend to favor redistribution more than wealthier individuals, professionals, and entrepreneurs, who are instead more likely to support free markets and low tax-

ation (e.g., Alesina and Giuliano, 2011, Kuziemko et al., 2015, and Alt and Iversen, 2017). Specifically, we look at exogenous demographic characteristics of cabinet members, such as gender and age. We also consider their socio-economic background by coding information on occupations, classifying local politicians into two broad categories: "employees" and "professionals".[48] Finally, we account for the level of education, measured by number of years of schooling. While the latter is not necessarily informative on latent preferences over specific fiscal policies, is interesting in itself and has been used as a proxy for the competence, or quality, of politicians.[49]

Local cabinets are composed, on average, of 8 members (see summary statistics in Table S1). Summary statistics for each of the characteristics are reported in Table S3.[50] To identify the effect of exogenously increasing the power of each party, we estimate the impact of treatment on the socio-demographic characteristics of the cabinet members. Figure 8 depicts the coefficient estimates for the average age and years of schooling (upper panel) and for the share of women, employees, and professionals (lower panel) obtained in fully conditioned regressions (as in the specification reported in equation (1)).[51] See also Table A14 in the online appendix for the unconditional effects of the treatment and Tables A16 and A17 for results that look at the extensive margins.

Empowering the left-wing party leads to significant increases in both the average age of the cabinets and the presence of women. These findings are also confirmed when looking at information at the extensive margin. The magnitude of the results is sizable. Specifically,

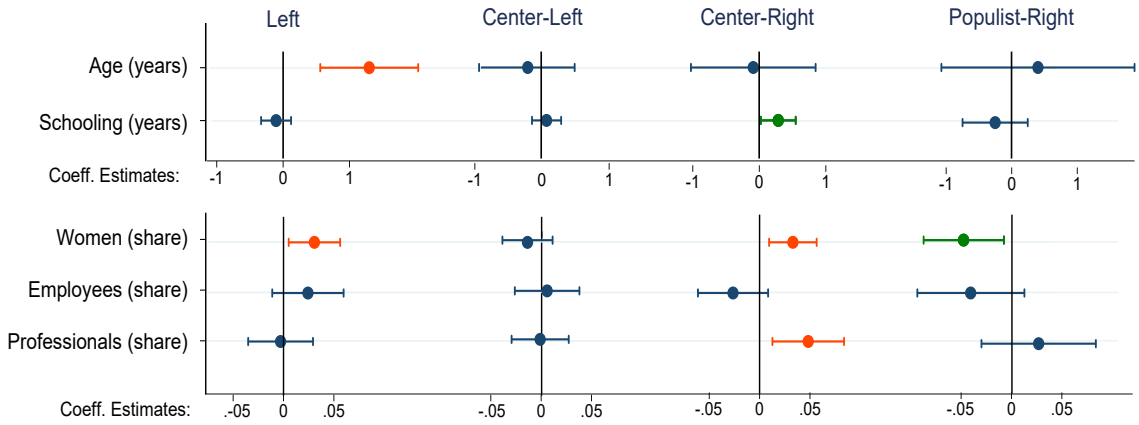
[48]The category "employees" includes the following occupations: public administrative employees, private administrative employees, social services employees, teachers and professors, and police agents. The category "professionals" is comprised of lawyers, engineers, architects, doctors, managers, entrepreneurs, and bankers.

[49]Summary statistics are reported in Table S3. Source: http://amministratori.interno.it/AmmIndex5.htm.

[50]Average age and number of years of schooling are around 46 and 15 years, respectively, and do not differ significantly across coalitions. Cabinets ratified by ruling coalitions that include the left-wing or center-left parties have a significantly higher share of women (around 25 percent), as compared to coalitions including the center right or the populist right (with an average around 15 percent). In terms of occupations, cabinets ratified by the left and center-left feature around 40 percent of members who are employees and around 30 percent who are professionals. These figures are instead reversed for cabinets expressed by the center right and by the populist right.

[51]The results in the figure refer to the most extensive specification, which includes number of parties and time fixed effects as well as all location, mayor, and election specific covariates. The findings are also reported in Table A15 in the online appendix.

Figure 8: EFFECT OF TREATMENT ON SELECTION OF CABINET MEMBERS



Note: The graph reports coefficient estimates of random treatment of each party estimated as in equation (1) in fully conditioned empirical specifications that account for all fixed effects and covariates. The *dependent variables* are the average age of the cabinet members (in years); their average years of schooling; share of women ; share of administrative employees; and share of professionals. *Treated Party* is a dummy variable equal to one if the party is in the focal point on the ballot paper and zero otherwise. *Sample*: all ruling coalitions containing the respective party. The point represents the estimated coefficient of a regression that includes all the covariates described in Table V2. Point estimates in red (respectively green) are significant at least at the 5% (respectively 10%) level with confidence intervals at limit (10%) significance level. The estimated coefficients and all the additional information are also reported in Table A15 in the online appendix.

treating the left-wing party implies a 20 percent increase in the share of women (or a 25 percent increase in the probability of having at least two women in the cabinet as reported in the online appendix). The effects are similar in magnitude and significance in terms of average age (or the probability that the average age of the committee is above 55). Randomly treating the center-right party similarly leads to an increase in the share of women but leaves average age relatively unchanged (if anything, it tends to decrease). In addition, we observe a large increase (around 10 percent) in the share of professionals (and a tendency to reduce the share of employees). A shift from employees to professionals is also detected when treating the populist right. Moreover, a main effect for this party is a reduction in the share of women (with the probability of having at least two women dropping from around 34 to 23 percent). Finally, and again contrary to insights from conditional correlations reported in the online appendix (Figure A6), no significant effects can be detected on the composition of the cabinets when treating the center left.

Given the existing evidence on the role of observable characteristics on latent preferences for policies, the results support the perspective that treating each party affects the selection of the cabinet members broadly in line with the prominent issues in each party's electoral manifesto. In contrast to the estimated changes in demographic characteristics and occupation, we do not detect a systematic effect in terms of education (see also extensive margin results in the online appendix). We also estimate the effect of the treatment on the average characteristics of elected councillors.[52] The results confirm the broad patterns and suggest that a main effect of treating parties with different ideologies is the election of councillors of different gender, age, and occupations, as opposed to varying levels of education. Finally, and coherently with the results of the previous section, we find no evidence of a change in the composition of cabinet members, when treating parties in losing coalitions (see Figure A4 in the online appendix).

6 Conclusion

We have provided a measurement of electoral noise in the allocation of votes across parties in the context of a large scale natural experiment in Italy that covers local elections for over a decade. We document that the randomization of the order of party symbols and the peculiar graphical design of voting ballots implied a systematic re-allocation of votes across parties within running coalitions. We show that electoral noise is pervasive but, due to the use of the lottery, is random. A reallocation of votes is documented both within majority and minority coalitions. The associated random treatment can be detected for both small and big parties, is monotonic and is orthogonal to parties electoral manifestos. The institutional set-up is ideally suited to study the implications of exogenously perturbing the

[52]This test is subject to several important caveats. First, it is statistically more demanding in view of the larger size of city councils (around 25 members) as compared to executive committees (8 members). Second, while we can study the impact of treating a party on the cabinet (that is appointed by the mayor and ratified by the majority), the lack of information on party affiliations prevents restricting attention to ruling coalitions in the city council (that on average account for 16 out of 25 councillors). The estimated impact of treating a party on the average characteristics of councillors is smaller and less precisely estimated. As for the case of policies, the correlation results obtained regressing the vote share (or seats) allocated to the different parties deliver patterns that are at odd with causal estimates. Results are reported in the online appendix (Tables A18 and A19).

political power of parties for policy implementation and the selection of executive politicians in a multi-party setting. The framework allows, in particular, to isolate the role of increasing the (latent) bargaining power of a party with a specific political manifesto by accounting, at the same time, for the confounders related to the process of formation of majorities and to the role of minorities.

The results deliver a rich set of novel insights on the role of political ideologies in multiparty governments. The findings show that electoral noise has a significant impact on policies. Even comparatively small perturbations of political power materialize in sizable changes of fiscal policies. Governments respond to the exogenous increase in the power of a party in a ruling coalition by shifting coalitions policies towards the electoral platform of that party. The effects are larger for the more politically divisive issues. The effect can be detected, however, only when treating parties with a clear and prominent electoral focus on a subset of issues and only when treating parties in ruling majorities. Exogenously endowing parties with extra-power also impacts the socio-demographic characteristics of the appointed cabinet members, that are ultimately in charge of policy implementations. The findings provide a first shred of casual evidence that is in line with the long-lasting hypothesis that parties, and political ideologies, play a critical role for policy setting in representative democracies also in relation to the selection and appointment of policy makers with different (latent) political preferences.

The results show the existence and relevance of systematic electoral noise and document the role of party ideologies for policies. The random nature of the perturbation of votes across parties imply, however, that the experiment is silent, by design, on the role that party ideologies play in shaping the match between parties and voters. Hence the natural experiment deliver insights on the mechanisms of the interactions between party ideologies and policy makers but not on their interactions with voters. The results therefore call for an intensified research effort to understanding how voters react to, but also possibly even affect, the evolution of party identities in representative democracies.

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Appendix

Table S1: SUMMARY STATISTICS: ALL PARTIES

Variable	N	Mean	Std. Dev.	Min.	Max.
			FULL SAMPLE		
Total Seats of the Council	11964	25	6.7	16	60
Members of the Executive	11964	8.3	1.8	5	12
Number of Parties in the Council	11964	5.3	1.5	3	8
Share of Votes w/i Coalition	11964	21	18	.037	92
Share of Councillors w/i Coalition	11964	19	25	0	100
			WINNING COALITION		
Total Seats of the Council	5448	25	6.5	16	60
Members of the Executive	5448	8.3	1.8	5	12
Number of Parties in the Council	5448	5.7	1.5	3	8
Share of Votes w/i Coalition	5448	19	18	.037	90
Share of Councillors w/i Coalition	5448	19	21	0	100
			NON-WINNING COALITION		
Total Seats of the Council	6516	25	6.8	16	60
Members of the Executive	6516	8.3	1.9	5	12
Number of Parties in the Council	6516	5	1.5	3	8
Share of Votes w/i Coalition	6516	22	18	.13	92
Share of Councillors w/i Coalition	6516	20	27	0	100
			LEFT PARTY		
Total Seats of the Council	439	26	7.1	16	60
Members of the Executive	439	8.5	1.9	5	12
Number of Parties in the Council	439	6.5	1.8	3	14
Share of Votes w/i Coalition	439	9.6	5.8	1.2	60
Share of Councillors w/i Coalition	439	8.1	6.9	0	61
			CENTER-LEFT PARTY		
Total Seats of the Council	578	25	6.8	16	60
Members of the Executive	578	8.3	1.9	5	12
Number of Parties in the Council	578	6.1	1.8	3	14
Share of Votes w/i Coalition	578	47	19	4.6	90
Share of Councillors w/i Coalition	578	53	21	0	100
			CENTER-RIGHT PARTY		
Total Seats of the Council	381	25	6.2	16	60
Members of the Executive	381	8.3	1.8	5	12
Number of Parties in the Council	381	5.9	2.5	3	21
Share of Votes w/i Coalition	381	43	15	5.8	90
Share of Councillors w/i Coalition	381	47	17	0	100
			POPULIST RIGHT PARTY		
Total Seats of the Council	150	25	7.4	16	60
Members of the Executive	150	8.4	1.8	5	12
Number of Parties in the Council	150	5.2	2	3	13
Share of Votes w/i Coalition	150	21	16	.29	84
Share of Councillors w/i Coalition	150	21	18	0	92

Table S2: SUMMARY STATISTICS: POLICIES

Variable	N	Mean	Sd	Min.	Max.	N	Mean	Sd	Min.	Max.
	LEFT PARTY					CENTER-LEFT PARTY				
Welfare	1710	133	91	.74	2179	2122	128	86	.74	2179
Education	1710	80	37	4.3	209	2122	77	35	3.4	207
Tax	1571	190	87	0	592	1864	186	85	0	592
Security	1710	46	23	1.6	195	2122	46	23	0	272
	CENTER-RIGHT PARTY					POPULIST RIGHT PARTY				
Welfare	1464	115	63	6.7	428	586	155	55	45	384
Education	1464	66	27	4.6	190	586	87	28	4.6	206
Tax	1319	169	73	0	539	531	199	67	58	539
Security	1464	49	24	1.5	289	586	50	20	1.5	141

Table S3: SUMMARY STATISTICS: CABINET MEMBERS

Variable	N	Mean	Sd	Min.	Max.	N	Mean	Sd	Min.	Max.
	LEFT PARTY					CENTER-LEFT PARTY				
Age	439	46	4.3	31	60	578	46	4.3	31	60
Schooling	439	15	1.5	8.8	18	578	15	1.4	8.8	19
Women	439	.25	.15	0	.8	578	.25	.15	0	.8
Employees	439	.41	.21	0	1	578	.41	.2	0	1
Professional	439	.29	.2	0	1	578	.31	.2	0	1
	CENTER-RIGHT PARTY					POPULIST RIGHT PARTY				
Age	381	46	4.6	32	61	150	47	5	32	61
Schooling	381	15	1.4	11	18	150	15	1.3	11	18
Women	381	.14	.13	0	.67	150	.17	.12	0	.6
Employees	381	.28	.18	0	.81	150	.31	.19	0	.81
Professional	381	.45	.2	0	1	150	.44	.19	0	.89

Table V1: VARIABLES DESCRIPTION AND DATA SOURCES: MAIN VARIABLES

Treated Party. Dummy variable equal to one if the party is in the focal point in the ballot paper and zero otherwise.

SOURCES: the position of party in the ballot paper has been retrieved and elaborated by the authors from raw data on the graphical structure of ballot papers kindly supplied upon request by the Italian Ministry of Internal Affairs.

Electoral Outcomes:

Share of Votes w/i Coalition. The votes obtained by the party over the total number of votes obtained by the parties of the coalition. Source: Italian Ministry of Internal Affairs, Election Archive.

Share of Councillors w/i Coalition. The seats obtained by the party over the total number of seats obtained by the parties of the coalition. Source: Italian Ministry of Internal Affairs, Election Archive.

SOURCES: Electoral Covariates are available on the website of the Italian Ministry of Internal Affairs, Election Archive. See http://elezionistorico.interno.it/.

Policy Outcomes:

Welfare. Total current expenditure per capita on public social services as defined by Italian Ministry of the Internal Affairs ("*Funzioni del Settore Sociale*").

Education. Total current expenditure per capita on public education as defined by Italian Ministry of the Internal Affairs ("*Funzioni di Istruzione Pubblica*").

Tax. Total revenues per capita coming from the real estate tax on home property ("*Imposta Comunale sugli Immobili*, ICI").

Security. Total current expenditure per capita on local police and justice services ("*Funzioni di Polizia Locale e Funzioni Relative alla Giustizia*").

SOURCES: Fiscal variables are available on the website of the Italian Ministry of Internal Affairs, Financial Reports (Section "Quadro 2" for taxes and Section "Quadro 4" for chapters of expenditure). See http://finanzalocale.interno.it/apps/floc.php/in/cod/4.

Characteristics of Politicians:

Age. The average age.

Schooling. The average years of schooling.

Women. Share of women among members of the cabinet (councillors, respectively).

Employees. Share of employees among members of the cabinet (councillors, respectively).

Professionals. Share of professionals among members of the cabinet (councillors, respectively).

Appointed to Cabinet Extensive Margin:

Age>55 Dummy variable equal to one if the average age of the member of the Cabinet is higher than 55 years and zero otherwise. *Source*: Italian Ministry of Internal Affairs, Register of Local Politicians.

Bachelor>20% Dummy variable equal to one if the share of member with a bachelor degree in the Cabinet is higher than the 20% and zero otherwise. *Source*: Italian Ministry of Internal Affairs, Register of Local Politicians.

Women>20% Dummy variable equal to one if the share of women in the Cabinet is higher than the 20% and zero otherwise. *Source*: Italian Ministry of Internal Affairs, Register of Local Politicians.

Employees>20% Dummy variable equal to one if the share of administrative employees in the Cabinet is higher than the 20% and zero otherwise. *Source*: Italian Ministry of Internal Affairs, Register of Local Politicians.

Professionals>20% Dummy variable equal to one if the share of professionals in the Cabinet is higher than the 20% and zero otherwise. *Source*: Italian Ministry of Internal Affairs, Register of Local Politicians.

SOURCES: Characteristics of politicians elected to the city councils and appointed as members of the executive committee are available on the website of the Italian Ministry of Internal Affairs, Register of Local Politicians. See http://amministratori.interno.it/AmmIndex5.htm.

Table V2: VARIABLES DESCRIPTION AND DATA SOURCES: COVARIATES

Geographic Covariates:

Municipal Area. The municipality area in Km^2.

Urbanization. The variable classifies municipalities according to three degrees of urbanization; (1) low, (2) medium, (3) high.

Seismicity. The variable classifies municipalities according to four degrees of seismic risk.

Sea Distance. The distance between the municipality and the sea, in Km.

River. Dummy variable equal to one if the municipality is crossed by a river and zero otherwise.

Any Water Course. Dummy variable equal to one if the municipality is bathed by any type of watercourse (river, lake or sea) and zero otherwise.

Seaside City. Dummy variable equal to one if the municipality is on the coast and zero otherwise.

Share of Mountains. Share of the municipal territory with altitude $\geq$ 600 meters above sea level.

Altitude. The variable classifies municipalities according to five degrees of altitude class.

Population (Log). The log of the resident population in the municipality.

SOURCES: Geo-morphological controls are available from the Italian Institute of Statistics.
See https://www.istat.it/it/archivio/156224.

Mayors Characteristics:

Age The age of the mayor.

Schooling. The years of schooling of the mayor

Women. Dummy variable equal to one if the mayor is male and zero otherwise.

Employees. Dummy variable equal to one if the previous job of the elected mayor belongs to the category of low white collar and zero otherwise.

Professional. Dummy variable equal to one if the previous job of the elected mayor belongs to the category of high white collar and zero otherwise.

Second Term Mayor. Dummy variable equal to one if the mayor was elected mayor also in the previous term and zero otherwise.

SOURCES: Mayors Characteristics are available on the website of the Italian Ministry of Internal Affairs, Register of Local Politicians. See http://amministratori.interno.it/AmmIndex5.htm.

Electoral Covariates:

Turnout. The percentage of eligible voters who voted in the election.

Percentage of Votes (Mayor). The share of votes obtained by the mayor, over total number of votes.

Run-off. Dummy variable equal to one if the mayor is elected at the second round and zero otherwise.

Run-off Alliances. Dummy variable equal to one if the mayor forms formal alliances with parties between the first and the second round and zero otherwise.

Run-off Alliances with Seats. Dummy variable equal to one if parties that form formal alliances with the mayor have seats in the city council and zero otherwise.

Minority Ruling Coalition. Dummy variable equal to one if the mayor does not have the majority of seats within the city council and zero otherwise.

Total Potential Voters Total number of eligible voters.

Total Number of Seats within the City Council. Total number of seats available in the city council.

SOURCES: Electoral Covariates are available on the website of the Italian Ministry of Internal Affairs, Election Archive. See http://elezionistorico.interno.it/.

Online Appendix

Table A1: SUMMARY STATISTICS: COVARIATES

Variable	N	Mean	Std. Dev.	Min.	Max.
Geographic Covariates:					
Municipal Area	596	94	114	1.6	1308
Urbanization	596	2.4	.63	1	3
Seismicity	596	2.8	.92	1	4
Sea Distance	596	48702	47926	656	206404
River	596	.56	.5	0	1
Any Water Course	596	.47	.5	0	1
Seaside City	596	.26	.44	0	1
Share of Mountains	596	15	31	0	100
Average Altitude	596	286	274	.5	1845
Population	596	49735	137992	10051	2679363
Mayors Characteristics:					
Age	1174	50	8.8	27	74
Schooling	1174	16	2.8	5	21
Women	1174	.073	.26	0	1
Employees	1174	.26	.44	0	1
Professional	1174	.64	.48	0	1
Second Term Mayor	1174	.28	.45	0	1
Electoral Covariates:					
Turnout	1174	66	26	0	93
Percentage of Votes (Mayor)	1174	42	12	4.7	89
Run-off	1174	.68	.44	0	1
Run-off Alliances	1174	.09	.27	0	1
Run-off Alliances with Seats	1174	.047	.2	0	1
Minority Ruling Coalition	1174	.026	.16	0	1
Total Potential Voters	1174	38311	90048	7999	2347502
Total Seats of The Council	1174	25	6.5	16	60

Table A2: SUMMARY STATISTICS: COUNCILORS

Variable	N	Mean	Std. Dev.	Min.	Max.
			FULL SAMPLE		
Number of Councillors	11964	1.9	3	0	39
At Least a Councilor	11964	.62	.48	0	1
			WINNING COALITION		
Number of Councillors	5448	2.8	3.6	0	37
At Least a Councilor	5448	.76	.43	0	1
			NON-WINNING COALITION		
Number of Councillors	6516	1.2	2.2	0	39
At Least a Councilor	6516	.51	.5	0	1
			LEFT PARTY		
Number of Councillors	439	1.3	1.1	0	11
At Least a Councilor	439	.79	.41	0	1
			CENTER-LEFT PARTY		
Number of Councillors	578	8.4	4.1	0	23
At Least a Councilor	578	1	.059	0	1
			CENTER-RIGHT PARTY		
Number of Councillors	381	7.5	3.8	0	24
At Least a Councilor	381	1	.051	0	1
			POPULIST RIGHT PARTY		
Number of Councillors	150	3.2	2.8	0	18
At Least a Councilor	150	.8	.4	0	1

Table A3: RANDOMIZING COUNCILORS: BASELINE SAMPLE

	COUNCILLORS					
	SHARE		NUMBER		AT LEAST ONE	
	(1)	(2)	(3)	(4)	(5)	(6)
Sample A: ALL PARTIES						
TREATED PARTY	3.700***	3.698***	0.296***	0.294***	0.078***	0.078***
	(0.604)	(0.605)	(0.062)	(0.062)	(0.009)	(0.009)
Mean Dependent	19.45	19.45	1.94	1.94	0.62	0.62
Observations	11,964	11,964	11,964	11,964	11,964	11,964
R-Square	0.04	0.05	0.00	0.12	0.01	0.12
Sample B: WINNING COALITIONS						
TREATED PARTY	3.496***	3.496***	0.518***	0.517***	0.091***	0.091***
	(0.749)	(0.751)	(0.119)	(0.119)	(0.012)	(0.012)
Mean Dependent	18.85	18.85	2.80	2.80	0.76	0.76
Observations	5,448	5,448	5,448	5,448	5,448	5,448
R-Square	0.08	0.08	0.02	0.07	0.02	0.05
Sample B: NON-WINNING COALITIONS						
TREATED PARTY	3.856***	3.836***	0.122**	0.119**	0.068***	0.067***
	(0.881)	(0.883)	(0.060)	(0.060)	(0.013)	(0.013)
Mean Dependent	19.95	19.95	1.23	1.23	0.51	0.51
Observations	6,516	6,516	6,516	6,516	6,516	6,516
R-Square	0.03	0.05	0.00	0.13	0.00	0.14
Running Parties FE	✓	✓	✓	✓	✓	✓
Post 2009 FE	✓	✓	✓	✓	✓	✓
Geographical Characteristics	✗	✓	✗	✓	✗	✓
Mayors Characteristics	✗	✓	✗	✓	✗	✓
Election Characteristics	✗	✓	✗	✓	✗	✓

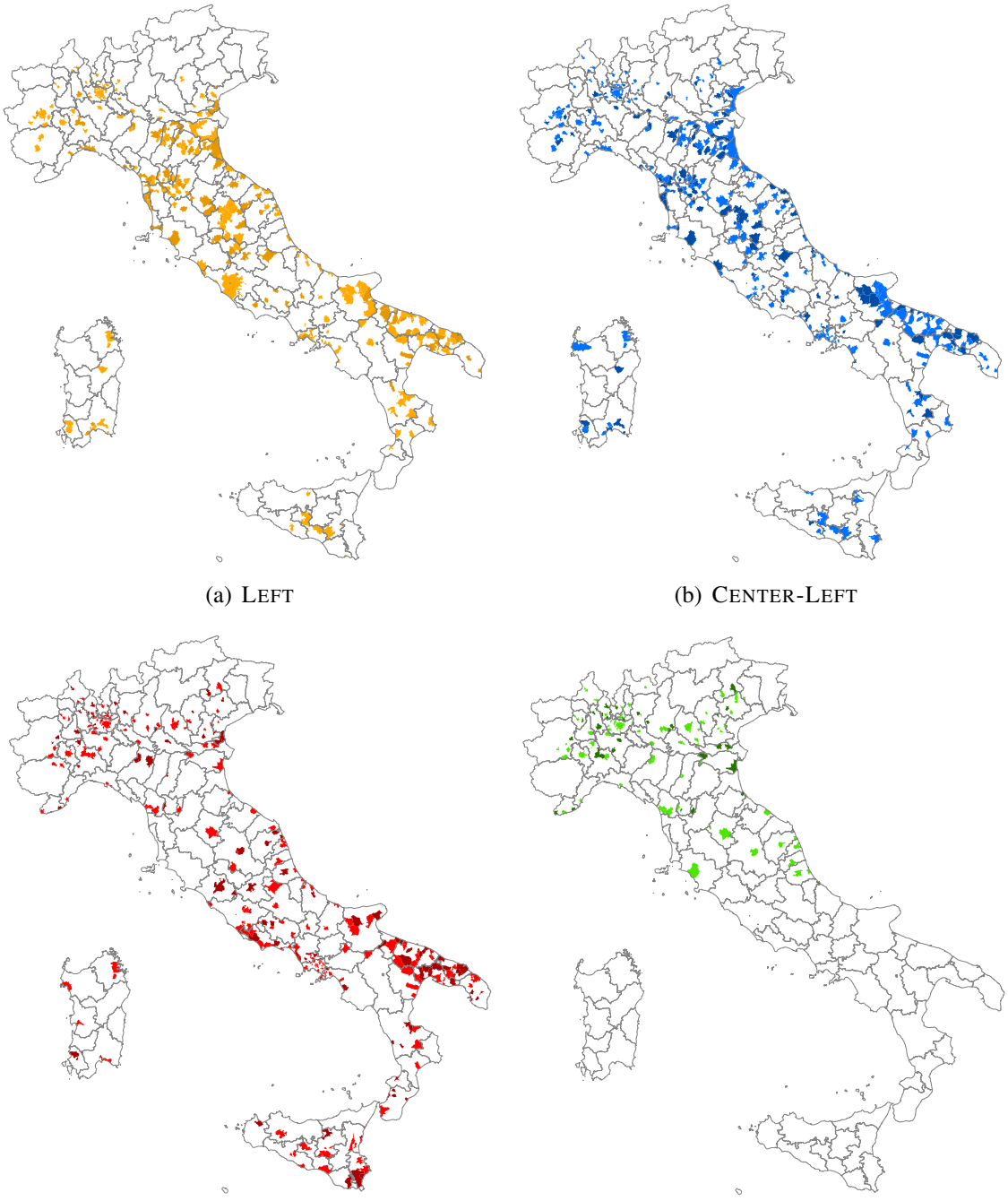
Notes: The dependent variable is: the party share of councilors within ruling coalition in columns (1) and (2); the number of councilors in columns (3) and (4); the probability to obtain at least a councilor in columns (5) and (6). See Table V1 for details and Table A2 for summary statistics. Treated Party is a dummy variable equal to one if the party is in the focal point in the ballot paper and zero otherwise. The sample includes coalitions with more than two running parties (any, winning and non-winning coalitions) in municipalities with more than 15,000 inhabitants in the period 2002-2012 (see text for details). Panel A includes all coalitions; panel B includes ruling coalitions; panel C includes non-winning coalitions. Description of covariates, data sources and summary statistics are reported in Tables V2 and A1. OLS regressions with robust standard errors clustered at the legislature level in parenthesis. *, ** and *** denote significance levels at 10%, 5% and 1%, respectively.

Table A4: RANDOMIZATION OF POLITICAL POWER: ALL PARTIES

Sample - N of Running Parties	*3 Parties*	*4 Parties*	*5 Parties*	*6 Parties*	*7 Parties*	*8 Parties*	*All*
	Dependent Variable: SHARE OF VOTES W/I COALITION						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
TREATED PARTY	5.178***	2.222**	4.417***	1.361*	3.748***	1.095	2.934***
	(1.316)	(0.929)	(0.944)	(0.814)	(1.108)	(0.879)	(0.427)
Mean Dependent	33.37	25.03	20.01	16.70	14.30	12.53	20.66
Observations	1,709	2,295	2,752	2,291	1,585	1,332	11,964
R-Square	0.01	0.00	0.01	0.00	0.01	0.00	0.14
	Dependent Variable: SHARE OF COUNCILLORS W/I COALITION						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
TREATED PARTY	6.257***	3.253**	5.107***	1.923*	4.513***	1.261	3.698***
	(1.890)	(1.320)	(1.358)	(1.138)	(1.533)	(1.163)	(0.605)
Mean Dependent	27.68	23.53	19.73	16.50	14.32	12.46	19.45
Observations	1,709	2,295	2,752	2,291	1,585	1,332	11,964
R-Square	0.06	0.02	0.01	0.00	0.01	0.00	0.05
	Dependent Variable: NUMBER OF COUNCILLORS						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
TREATED PARTY	0.370***	0.242**	0.469***	0.112	0.567**	0.151	0.294***
	(0.128)	(0.122)	(0.139)	(0.145)	(0.256)	(0.217)	(0.062)
Mean Dependent	1.79	1.96	1.90	2.00	2.06	1.98	1.94
Observations	1,709	2,295	2,752	2,291	1,585	1,332	11,964
R-Square	0.27	0.20	0.14	0.08	0.09	0.06	0.12
	Dependent Variable: PROBABILITY TO HAVE AT LEAST ONE COUNCILOR						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
TREATED PARTY	0.065***	0.045**	0.150***	0.036*	0.175***	0.055*	0.078***
	(0.021)	(0.018)	(0.020)	(0.021)	(0.029)	(0.030)	(0.009)
Mean Dependent	0.57	0.63	0.63	0.63	0.64	0.62	0.62
Observations	1,709	2,295	2,752	2,291	1,585	1,332	11,964
R-Square	0.27	0.18	0.13	0.09	0.09	0.07	0.12
Running Parties FE	✗	✗	✗	✗	✗	✗	✓
Post 2009 FE	✓	✓	✓	✓	✓	✓	✓
Geographical Characteristics	✓	✓	✓	✓	✓	✓	✓
Mayors Characteristics	✓	✓	✓	✓	✓	✓	✓
Election Characteristics	✓	✓	✓	✓	✓	✓	✓

Notes: The dependent variable is the party share of votes within coalitions. See Table V1 for details and Table S1 for summary statistics. Treated Party is a dummy variable equal to one if the party is in the focal point in the ballot paper and zero otherwise. The sample includes coalitions with more then two running parties in municipalities with more than 15,000 inhabitants in the period 2002-2012 (see text for details). Column (1) includes coalitions of three running parties; column (2) includes coalitions of four running parties; column (3) includes coalitions of five running parties; column (4) includes coalitions of six running parties; column (5) includes coalitions of seven running parties; column (6) includes coalitions of eight running parties; column (7) includes coalitions of more than two, and less than nine, running parties. Description of covariates, data sources and summary statistics are reported in Tables V2 and A1. Panel A includes results with no covariates. Panel B includes results with all covariates. OLS regressions with robust standard errors clustered at the legislature level in parenthesis. *, ** and *** denote significance levels at 10%, 5% and 1%, respectively.

Figure A1: DISTRIBUTION OF PARTIES IN RULING COALITIONS IN ITALY



(a) LEFT (b) CENTER-LEFT

(c) CENTER-RIGHT (d) POPULIST RIGHT

The maps report the geographical distribution of the treated (dark color) and control group (light color).

Table A5: RANDOMIZATION OF POLITICAL POWER: MAIN PARTIES (UNCONDITIONAL)

	Control Group		Treated Group		(1)	(2)	
	mean	SD	mean	SD	p-value	p-value	obs.
PANEL A. LEFT PARTY							
Share of Votes w/i Coalition	8.86	5.64	11.08	5.74	0.00	0.00	439.00
Share of Councillors w/i Coalition	7.29	6.85	9.49	6.74	0.00	0.00	439.00
Number of Councillors	1.23	1.19	1.49	0.97	0.02	0.00	439.00
At Least a Councilor	0.75	0.44	0.87	0.34	0.00	0.00	439.00
PANEL B. CENTER-LEFT PARTY							
Share of Votes w/i Coalition	44.69	17.69	54.30	19.39	0.00	0.00	578.00
Share of Councillors w/i Coalition	50.67	20.63	60.30	21.50	0.00	0.00	578.00
Number of Councillors	8.03	4.10	9.28	4.17	0.00	0.00	578.00
At Least a Councilor	1.00	0.07	1.00	0.00	0.40	0.17	578.00
PANEL C. CENTER-RIGHT PARTY							
Share of Votes w/i Coalition	41.02	14.41	47.25	16.02	0.00	0.08	381.00
Share of Councillors w/i Coalition	44.98	16.14	51.20	18.18	0.00	0.09	381.00
Number of Councillors	7.32	3.84	7.85	3.77	0.21	0.33	381.00
At Least a Councilor	1.00	0.06	1.00	0.00	0.50	0.38	381.00
PANEL D. POPULIST RIGHT PARTY							
Share of Votes w/i Coalition	18.63	15.27	26.50	17.15	0.01	0.00	150.00
Share of Councillors w/i Coalition	18.07	17.05	26.80	19.39	0.01	0.01	150.00
Number of Councillors	2.73	2.36	4.34	3.30	0.00	0.01	150.00
At Least a Councilor	0.75	0.43	0.91	0.29	0.03	0.01	150.00

Variables description and data sources are reported in Tables V1. For each variable, means and standard deviations in both the control group and the treatment group are reported. Column (1) reports the p-value of the test on the equality of means; Column (2) reports the p-values of the treatment coefficient of a regression which includes as control only the number of running parties fixed effect, as from equation (1).

Table A6: BALANCE TESTS: LEFT PARTY

	Control Group		Treated Group		(1)	(2)	
	mean	SD	mean	SD	p-value	p-value	obs.
PANEL A. GEOGRAPHICAL CHARACTERISTICS							
Municipal Area (Km^2)	106.07	128.90	97.36	114.83	0.48	0.56	439.00
Urbanization	2.40	0.63	2.42	0.56	0.67	0.25	439.00
Seismicity	2.88	0.94	2.92	0.91	0.68	0.86	439.00
Sea Distance	48.72	44.98	59.75	47.57	0.02	0.10	439.00
River	0.64	0.48	0.65	0.48	0.77	0.93	439.00
Any Water Course	0.49	0.50	0.57	0.50	0.13	0.16	439.00
Seaside City	0.26	0.44	0.21	0.41	0.20	0.49	439.00
Share of Mountains	13.09	28.08	11.19	27.62	0.50	0.57	439.00
Altitude	270.88	241.47	260.43	254.80	0.67	0.95	439.00
Population	66991.60	195392.19	55938.13	99499.57	0.51	0.77	439.00
PANEL B. MAYORS CHARACTERISTICS							
Age	49.32	8.18	49.38	8.59	0.95	0.56	439.00
Schooling	16.18	2.67	16.01	2.70	0.53	0.88	439.00
Women	0.10	0.30	0.16	0.36	0.08	0.18	439.00
Employees	0.30	0.46	0.32	0.47	0.67	0.87	439.00
Professional	0.60	0.49	0.53	0.50	0.17	0.29	439.00
Second Term Mayor	0.28	0.45	0.34	0.48	0.19	0.19	439.00
PANEL C. ELECTORAL OUTCOMES							
Turnout	75.99	5.66	74.98	6.56	0.09	0.70	439.00
Percentage Votes Mayor	54.21	11.52	53.24	11.68	0.40	0.59	439.00
Run-off	0.35	0.48	0.38	0.49	0.50	0.71	439.00
Run-off Alliances	0.06	0.24	0.06	0.25	0.94	0.70	439.00
Run-off Alliances with Seats	0.04	0.19	0.04	0.19	0.98	0.87	439.00
Minority Ruling Coalition	0.02	0.16	0.01	0.08	0.18	0.21	439.00
Total Potential Voters	55464.66	165640.35	46315.77	84098.59	0.52	0.80	439.00
Total Seats of the Concil	26.39	7.34	24.88	6.64	0.03	0.31	439.00

Variables description and data sources are reported in Tables V2. For each variable, means and standard deviations in both the control group and the treatment group are reported. Column (1) reports the p-value of the test on the equality of means; Column (2) reports the p-values of the treatment coefficient of a regression which includes as control only the number of running parties fixed effect, as from equation (1).

Table A7: BALANCE TESTS: CENTER-LEFT PARTY

	Control Group		Treated Group		(1)	(2)	
	mean	SD	mean	SD	p-value	p-value	obs.
PANEL A. GEOGRAPHICAL CHARACTERISTICS							
Municipal Area (Km^2)	92.54	102.25	102.99	111.68	0.29	0.06	578.00
Urbanization	2.42	0.61	2.32	0.65	0.08	0.16	578.00
Seismicity	2.89	0.93	2.80	0.91	0.31	0.13	578.00
Sea Distance	53.47	48.00	51.20	43.51	0.61	0.16	578.00
River	0.63	0.48	0.68	0.47	0.34	0.82	578.00
Any Water Course	0.54	0.50	0.52	0.50	0.68	0.32	578.00
Seaside City	0.23	0.42	0.22	0.41	0.70	0.79	578.00
Share of Mountains	13.51	29.68	13.64	31.03	0.97	0.64	578.00
Altitude	285.94	284.19	242.38	239.20	0.09	0.15	578.00
Population	53084.16	103729.30	42659.12	44257.08	0.23	0.60	578.00
PANEL B. MAYORS CHARACTERISTICS							
Age	49.29	8.58	49.17	8.81	0.88	0.06	578.00
Schooling	16.25	2.76	16.06	2.63	0.46	0.94	578.00
Women	0.09	0.29	0.11	0.32	0.40	0.44	578.00
Employees	0.28	0.45	0.33	0.47	0.22	0.39	578.00
Professional	0.63	0.48	0.54	0.50	0.08	0.23	578.00
Second Term Mayor	0.28	0.45	0.29	0.46	0.81	0.61	578.00
PANEL C. ELECTORAL OUTCOMES							
Turnout	75.73	6.22	76.15	5.44	0.47	0.05	578.00
Percentage Votes Mayor	52.39	12.10	51.02	11.62	0.23	0.67	578.00
Run-off	0.41	0.49	0.46	0.50	0.27	0.93	578.00
Run-off Alliances	0.08	0.27	0.07	0.26	0.72	0.52	578.00
Run-off Alliances with Seats	0.05	0.22	0.04	0.20	0.56	0.47	578.00
Minority Ruling Coalition	0.04	0.18	0.01	0.11	0.17	0.20	578.00
Total Potential Voters	43660.96	83908.92	34855.71	35614.92	0.21	0.58	578.00
Total Seats of the Concil	25.22	6.87	25.01	6.70	0.74	0.12	578.00

Variables description and data sources are reported in Tables V2. For each variable, means and standard deviations in both the control group and the treatment group are reported. Column (1) reports the p-value of the test on the equality of means; Column (2) reports the p-values of the treatment coefficient of a regression which includes as control only the number of running parties fixed effect, as from equation (1).

Table A8: BALANCE TESTS: CENTER-RIGHT PARTY

	Control Group		Treated Group		(1)	(2)	
	mean	SD	mean	SD	p-value	p-value	obs.
PANEL A. GEOGRAPHICAL CHARACTERISTICS							
Municipal Area (Km^2)	89.86	90.93	84.83	98.95	0.63	0.81	381.00
Urbanization	2.35	0.64	2.37	0.63	0.84	0.76	381.00
Seismicity	2.91	0.92	3.06	0.94	0.15	0.70	381.00
Sea Distance	43.79	48.79	55.35	55.64	0.04	0.60	381.00
River	0.47	0.50	0.47	0.50	0.89	0.66	381.00
Any Water Course	0.39	0.49	0.39	0.49	0.93	0.71	381.00
Seaside City	0.32	0.47	0.30	0.46	0.73	0.92	381.00
Share of Mountains	14.42	30.05	14.82	32.14	0.91	0.80	381.00
Altitude	297.01	282.85	287.18	264.35	0.75	0.94	381.00
Population	45159.95	84775.47	33610.47	24075.76	0.14	0.25	381.00
PANEL B. MAYORS CHARACTERISTICS							
Age	50.95	9.16	50.77	8.87	0.85	0.81	381.00
Schooling	16.25	2.64	16.40	2.69	0.60	0.44	381.00
Women	0.05	0.22	0.07	0.26	0.33	0.56	381.00
Employees	0.17	0.38	0.18	0.39	0.80	0.63	381.00
Professional	0.75	0.44	0.73	0.44	0.78	0.88	381.00
Second Term Mayor	0.27	0.44	0.32	0.47	0.33	0.48	381.00
PANEL C. ELECTORAL OUTCOMES							
Turnout	76.79	5.47	75.47	6.02	0.03	0.08	381.00
Percentage Votes Mayor	50.96	9.66	50.67	9.94	0.78	0.16	381.00
Run-off	0.44	0.50	0.40	0.49	0.50	0.04	381.00
Run-off Alliances	0.14	0.35	0.09	0.29	0.20	0.04	381.00
Run-off Alliances with Seats	0.08	0.27	0.06	0.24	0.44	0.14	381.00
Minority Ruling Coalition	0.03	0.18	0.01	0.09	0.14	0.05	381.00
Total Potential Voters	37127.38	67232.92	27835.78	19572.10	0.14	0.28	381.00
Total Seats of the Concil	25.41	6.32	23.80	5.69	0.02	0.15	381.00

Variables description and data sources are reported in Tables V2. For each variable, means and standard deviations in both the control group and the treatment group are reported. Column (1) reports the p-value of the test on the equality of means; Column (2) reports the p-values of the treatment coefficient of a regression which includes as control only the number of running parties fixed effect, as from equation (1).

Table A9: BALANCE TESTS: POPULIST RIGHT PARTY

	Control Group		Treated Group		(1)	(2)	
	mean	SD	mean	SD	p-value	p-value	obs.
PANEL A. GEOGRAPHICAL CHARACTERISTICS							
Municipal Area (Km^2)	67.43	72.83	55.92	54.03	0.35	0.47	150.00
Urbanization	2.47	0.60	2.48	0.59	0.96	0.97	150.00
Seismicity	3.38	0.76	3.59	0.66	0.11	0.06	150.00
Sea Distance	87.39	53.16	98.80	52.27	0.23	0.36	150.00
River	0.81	0.39	0.84	0.37	0.67	0.47	150.00
Any Water Course	0.70	0.46	0.61	0.49	0.32	0.62	150.00
Seaside City	0.13	0.34	0.11	0.32	0.76	0.68	150.00
Share of Mountains	13.33	29.25	3.35	13.44	0.03	0.00	150.00
Altitude	318.33	336.77	250.28	186.39	0.21	0.04	150.00
Population	62535.46	177083.82	47063.50	38848.05	0.57	0.63	150.00
PANEL B. MAYORS CHARACTERISTICS							
Age	50.33	9.70	47.64	10.16	0.13	0.47	150.00
Schooling	15.63	2.97	15.86	2.66	0.65	0.60	150.00
Women	0.08	0.28	0.09	0.29	0.91	0.68	150.00
Employees	0.19	0.39	0.14	0.35	0.44	0.42	150.00
Professional	0.72	0.45	0.75	0.44	0.68	0.63	150.00
Second Term Mayor	0.32	0.47	0.27	0.45	0.56	0.80	150.00
PANEL C. ELECTORAL OUTCOMES							
Turnout	74.68	5.34	73.19	4.51	0.11	0.16	150.00
Percentage Votes Mayor	51.99	8.38	51.46	7.39	0.72	0.59	150.00
Run-off	0.38	0.49	0.36	0.49	0.88	0.96	150.00
Run-off Alliances	0.09	0.29	0.11	0.32	0.72	0.80	150.00
Run-off Alliances with Seats	0.04	0.19	0.00	0.00	0.19	0.06	150.00
Minority Ruling Coalition	0.01	0.10	0.00	0.00	0.52	0.33	150.00
Total Potential Voters	50870.76	143758.08	38234.77	31001.25	0.57	0.61	150.00
Total Seats of the Concil	25.25	7.55	25.82	7.03	0.67	0.72	150.00

Variables description and data sources are reported in Tables V2. For each variable, means and standard deviations in both the control group and the treatment group are reported. Column (1) reports the p-value of the test on the equality of means; Column (2) reports the p-values of the treatment coefficient of a regression which includes as control only the number of running parties fixed effect, as from equation (1).

Table A10: BALANCE TESTS POLICIES PREVIOUS TERM

	Control Group		Treated Group		(1)	(2)	
	mean	SD	mean	SD	p-value	p-value	obs.
PANEL A. LEFT PARTY							
Welfare	79.78	168.98	88.25	262.63	0.31	0.46	2694.00
Education	106.24	97.47	115.64	256.17	0.17	0.43	2694.00
Tax	189.76	325.09	197.09	559.44	0.67	0.81	2687.00
Security	46.41	191.14	41.55	59.56	0.44	0.37	2694.00
PANEL B. CENTER-LEFT PARTY							
Welfare	139.00	2769.19	74.87	31.70	0.48	0.30	3163.00
Education	150.17	2018.93	104.92	59.85	0.50	0.30	3163.00
Tax	249.86	2921.21	180.20	81.39	0.47	0.29	3159.00
Security	63.13	818.18	42.27	20.31	0.44	0.29	3163.00
PANEL C. CENTER-RIGHT PARTY							
Welfare	76.56	180.35	77.15	216.00	0.94	0.77	3128.00
Education	105.48	179.64	100.58	110.97	0.42	0.26	3128.00
Tax	185.46	389.80	183.46	405.34	0.89	0.62	3116.00
Security	45.12	44.55	49.68	247.34	0.41	0.44	3128.00
PANEL D. POPULIST RIGHT PARTY							
Welfare	100.25	296.15	90.83	31.42	0.56	0.38	1098.00
Education	136.93	286.58	135.93	56.63	0.95	0.76	1098.00
Tax	236.09	632.30	210.26	61.06	0.45	0.28	1093.00
Security	44.58	67.24	44.38	19.29	0.96	0.87	1098.00

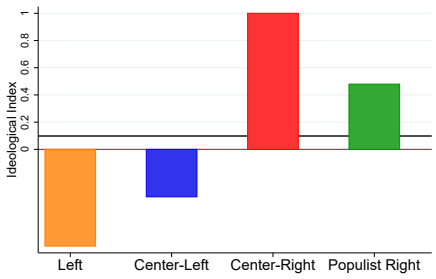
For each variable, means and standard deviations in both the control group and the treatment group are reported. Column (1) reports the p-value of the test on the equality of means; Column (2) reports the p-values of the treatment coefficient of a regression which includes as control only the number of running parties fixed effect, as from equation (1).

Table A11: MANIFESTO PROJECT DATASET

Label:	Id:	Description:
Welfare		
	per503	**Equality: Positive** Concept of social justice and the need for fair treatment of all people. This may include: (1) special protection for underprivileged social groups; (2) removal of class barriers; (3) need for fair distribution of resources; (4) the end of discrimination (e.g. racial or sexual discrimination).
	per504	**Welfare State Expansion** Favourable mentions of need to introduce, maintain or expand any public social service or social security scheme. This includes, for example, government funding of: (1) health care; (2) child care; (3) elder care and pensions; social housing.
Education	per506	**Education Expansion** Need to expand and/or improve educational provision at all levels.
Tax	per401	**Free Market Economy** Favourable mentions of the free market and free market capitalism as an economic model. May include favourable references to: (1) laissez-faire economy; (2) superiority of individual enterprise over state and control systems; (3) private property rights; (4) personal enterprise and initiative; (4) need for unhampered individual enterprises.
Security	per104	**Military: Positive** The importance of external security and defence. May include statements concerning: (1) the need to maintain or increase military expenditure; (2) the need to secure adequate manpower in the military; (3) the need to modernise armed forces and improve military strength; (4) the need for rearmament and self-defence; (5) the need to keep military treaty obligations.

Notes: Descriptions and information are from the Comparative Manifestos Project, CMP, by Volkens et. al. (2018). *Source*: https://manifesto-project.wzb.eu/datasets.

Figure A2: IDEOLOGICAL INDEX OF PARTIES



The graph reports the ideological index computed in the Comparative Manifestos Project (CMP) by Volkens et. al. (2018). *Ideology* is the Right-Left position of party: The sum of the following indexes of CMP, (per104 + per201 + per203 + per305 + per401 + per402 + per407 + per414 + per505 + per601 + per603 + per605 + per606) − (per103 + per105 + per106 + per107 + per403 + per404 + per406 + per412 + per413 + per504 + per506 + per701 + per202).

Table A12: TREATMENT AND POLICIES (UNCONDITIONAL EFFECT)

	Control Group		Treated Group		(1)	(2)	
	mean	SD	mean	SD	p-value	p-value	obs.
PANEL A. LEFT PARTY							
Welfare	129.44	100.85	139.28	66.86	0.04	0.08	1710.00
Education	76.42	36.04	86.82	36.65	0.00	0.00	1710.00
Tax	189.32	92.60	191.69	72.68	0.61	0.64	1571.00
Security	47.27	23.73	43.92	19.63	0.00	0.09	1710.00
PANEL B. CENTER-LEFT PARTY							
Welfare	127.18	88.62	131.91	76.93	0.26	0.61	2122.00
Education	76.22	34.47	80.73	35.20	0.01	0.04	2122.00
Tax	185.51	87.03	187.40	80.00	0.68	0.82	1864.00
Security	46.97	22.53	45.05	23.77	0.09	0.91	2122.00
PANEL C. CENTER-RIGHT PARTY							
Welfare	113.79	59.65	118.98	69.60	0.15	0.28	1464.00
Education	65.57	27.17	68.06	27.73	0.11	0.31	1464.00
Tax	171.95	76.20	163.31	63.80	0.05	0.00	1319.00
Security	50.30	25.46	47.19	20.45	0.02	0.64	1464.00
PANEL D. POPULIST RIGHT PARTY							
Welfare	154.64	56.83	155.15	48.31	0.92	0.85	586.00
Education	87.13	29.08	87.47	26.63	0.90	0.93	586.00
Tax	200.41	66.46	195.30	69.22	0.43	0.63	531.00
Security	47.99	20.52	53.59	19.79	0.00	0.00	586.00

Variables description and data sources are reported in Tables V1. For each variable, means and standard deviations in both the control group and the treatment group are reported. Column (1) reports the p-value of the test on the equality of means; Column (2) reports the p-values of the treatment coefficient of a regression which includes as control only the number of running parties fixed effect, as from equation (1).

Table A13: TREATMENT AND POLICIES

	WELFARE		EDUCATION		TAX		SECURITY	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Sample A: LEFT PARTY								
TREATED PARTY	0.124**	0.107**	0.123***	0.079**	0.056	0.019	0.001	0.010
	(0.050)	(0.044)	(0.047)	(0.040)	(0.048)	(0.040)	(0.043)	(0.041)
Mean Dependent	132.70	132.70	79.86	79.86	190.08	190.08	46.17	46.17
Observations	1,710	1,710	1,710	1,710	1,571	1,571	1,710	1,710
R-Square	0.05	0.33	0.04	0.40	0.04	0.39	0.10	0.25
Sample B: CENTER-LEFT PARTY								
TREATED PARTY	-0.012	-0.028	0.042	0.046	0.019	0.008	-0.045	-0.052
	(0.057)	(0.050)	(0.043)	(0.036)	(0.050)	(0.042)	(0.056)	(0.052)
Mean Dependent	128.42	128.42	77.41	77.41	186.00	186.00	46.47	46.47
Observations	2,122	2,122	2,122	2,122	1,864	1,864	2,122	2,122
R-Square	0.04	0.32	0.03	0.37	0.05	0.35	0.07	0.25
Sample C: CENTER-RIGHT PARTY								
TREATED PARTY	-0.000	-0.033	0.022	-0.002	-0.077	-0.090**	-0.007	-0.005
	(0.067)	(0.047)	(0.042)	(0.031)	(0.052)	(0.045)	(0.042)	(0.039)
Mean Dependent	115.38	115.38	66.33	66.33	169.27	169.27	49.35	49.35
Observations	1,464	1,464	1,464	1,464	1,319	1,319	1,464	1,464
R-Square	0.04	0.46	0.07	0.44	0.03	0.31	0.10	0.28
Sample C: POPULIST RIGHT PARTY								
TREATED PARTY	0.002	-0.109*	0.015	-0.021	-0.015	-0.008	0.130**	0.127**
	(0.060)	(0.056)	(0.050)	(0.051)	(0.059)	(0.055)	(0.062)	(0.055)
Mean Dependent	154.78	154.78	87.22	87.22	199.00	199.00	49.52	49.52
Observations	586	586	586	586	531	531	586	586
R-Square	0.08	0.44	0.08	0.33	0.11	0.42	0.14	0.48
Running Parties FE	✓	✓	✓	✓	✓	✓	✓	✓
Post 2009 FE	✓	✗	✓	✗	✓	✗	✓	✗
Year of the Legislature FE	✗	✓	✗	✓	✗	✓	✗	✓
Calendar Year FE	✗	✓	✗	✓	✗	✓	✗	✓
Geographical Characteristics	✗	✓	✗	✓	✗	✓	✗	✓
Mayors Characteristics	✗	✓	✗	✓	✗	✓	✗	✓
Election Characteristics	✗	✓	✗	✓	✗	✓	✗	✓

Notes: The dependent variable are: total current expenditure per capita devoted to public social services in columns (1) and (2); the total current expenditure per capita devoted to public education in columns (3) and (4); the total revenues per capita coming from the real estate tax on home property in columns (5) and (6); the total current expenditure per capita devoted to local police and justice services in columns (7) and (8). See Table V1 for details and Table A12 for summary statistics. Treated Party is a dummy variable equal to one if the party is in the focal point in the ballot paper and zero otherwise. The sample includes ruling coalitions with more then two running parties in municipalities with more than 15,000 inhabitants in the period 2002-2012 (see text for details). Post 2009 FE is excluded from even columns because the effect is captured by Calendar Year FE. Panel A refers to ruling coalitions which include the left party; panel B refers to ruling coalitions which include the center-left party; panel C refers to ruling coalitions which include the center-right party; panel D refers to ruling coalitions which include the populist right party. Description of covariates, data sources and summary statistics are reported in Tables V2 and A1. OLS regressions with robust standard errors clustered at the legislature level in parenthesis. *, ** and *** denote significance levels at 10%, 5% and 1%, respectively.

Table A14: TREATMENT AND CABINET MEMBERS (UNCONDITIONAL EFFECT)

	Control Group		Treated Group		(1)	(2)	
	mean	SD	mean	SD	p-value	p-value	obs.
PANEL A. LEFT PARTY							
Age	45.76	4.12	47.00	4.46	0.00	0.00	439.00
Schooling	15.21	1.47	15.08	1.44	0.36	0.26	439.00
Women	0.23	0.15	0.28	0.16	0.00	0.02	439.00
Employees	0.40	0.20	0.44	0.21	0.05	0.06	439.00
Professional	0.30	0.20	0.27	0.20	0.19	0.48	439.00
PANEL B. CENTER-LEFT PARTY							
Age	46.33	4.28	45.85	4.40	0.24	0.27	578.00
Schooling	15.25	1.45	15.22	1.44	0.84	0.65	578.00
Women	0.25	0.15	0.24	0.17	0.58	0.28	578.00
Employees	0.40	0.20	0.43	0.20	0.23	0.53	578.00
Professional	0.31	0.21	0.29	0.17	0.32	0.75	578.00
PANEL C. CENTER-RIGHT PARTY							
Age	46.39	4.40	46.52	4.99	0.79	0.91	381.00
Schooling	15.06	1.44	15.14	1.36	0.61	0.25	381.00
Women	0.13	0.12	0.16	0.14	0.07	0.07	381.00
Employees	0.29	0.18	0.27	0.17	0.45	0.30	381.00
Professional	0.44	0.20	0.46	0.19	0.33	0.11	381.00
PANEL D. POPULIST RIGHT PARTY							
Age	46.57	5.18	47.21	4.68	0.48	0.57	150.00
Schooling	14.96	1.30	14.63	1.43	0.18	0.29	150.00
Women	0.18	0.13	0.13	0.10	0.02	0.00	150.00
Employees	0.32	0.19	0.28	0.18	0.16	0.06	150.00
Professional	0.44	0.20	0.45	0.16	0.79	0.68	150.00

Variables description and data sources are reported in Tables V1. For each variable, means and standard deviations in both the control group and the treatment group are reported. Column (1) reports the p-value of the test on the equality of means; Column (2) reports the p-values of the treatment coefficient of a regression which includes as control only the number of running parties fixed effect, as from equation (1).

Table A15: TREATMENT AND CABINET MEMBERS

	AGE		SCHOOLING		WOMEN		EMPLOYEES		PROFESSIONAL	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Sample A: LEFT PARTY										
TREATED PARTY	1.265***	1.298***	-0.165	-0.106	0.037**	0.031**	0.041*	0.024	-0.014	-0.003
	(0.443)	(0.449)	(0.147)	(0.137)	(0.016)	(0.016)	(0.022)	(0.022)	(0.020)	(0.020)
Mean Dependent	46.19	46.19	15.16	15.16	0.25	0.25	0.41	0.41	0.29	0.29
Observations	439	439	439	439	439	439	439	439	439	439
R-Square	0.04	0.15	0.11	0.26	0.11	0.25	0.05	0.19	0.04	0.21
Sample A: CENTER-LEFT PARTY										
TREATED PARTY	-0.496	-0.214	0.061	0.069	-0.016	-0.014	0.013	0.006	-0.006	-0.001
	(0.446)	(0.425)	(0.134)	(0.132)	(0.015)	(0.015)	(0.020)	(0.019)	(0.018)	(0.017)
Mean Dependent	46.20	46.20	15.24	15.24	0.25	0.25	0.41	0.41	0.31	0.31
Observations	578	578	578	578	578	578	578	578	578	578
R-Square	0.01	0.12	0.10	0.23	0.10	0.23	0.04	0.16	0.04	0.20
Sample A: CENTER-RIGHT PARTY										
TREATED PARTY	-0.061	-0.085	0.191	0.284*	0.027*	0.032**	-0.021	-0.026	0.035	0.048**
	(0.564)	(0.569)	(0.164)	(0.160)	(0.015)	(0.014)	(0.020)	(0.021)	(0.022)	(0.022)
Mean Dependent	46.43	46.43	15.09	15.09	0.14	0.14	0.28	0.28	0.45	0.45
Observations	381	381	381	381	381	381	381	381	381	381
R-Square	0.03	0.12	0.05	0.23	0.11	0.20	0.03	0.10	0.05	0.20
Sample A: POPULIST RIGHT PARTY										
TREATED PARTY	0.505	0.399	-0.283	-0.254	-0.058***	-0.048*	-0.059*	-0.041	0.013	0.027
	(0.897)	(0.895)	(0.265)	(0.302)	(0.020)	(0.024)	(0.032)	(0.032)	(0.032)	(0.035)
Mean Dependent	46.76	46.76	14.86	14.86	0.17	0.17	0.31	0.31	0.44	0.44
Observations	150	150	150	150	150	150	150	150	150	150
R-Square	0.03	0.27	0.07	0.26	0.09	0.22	0.09	0.35	0.04	0.34
Running Parties FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Post 2009 FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Geographical Characteristics	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓
Mayors Characteristics	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓
Election Characteristics	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓

Notes: The dependent variable is the the following feature of the members of the Cabinet: average age in columns (1) and (2); average years of schooling in columns (3) and (4); the share of women in columns (5) and (6); the share of administrative employees in columns (7) and (8); the share of professionals in columns (9) and (10). See Table V1 for details and Table A14 for summary statistics. Treated Party is a dummy variable equal to one if the party is in the focal point in the ballot paper and zero otherwise. The sample includes ruling coalitions with more then two running parties in municipalities with more than 15,000 inhabitants in the period 2002-2012 (see text for details). Panel A refers to ruling coalitions which include the left party; panel B refers to ruling coalitions which include the center-left party; panel C refers to ruling coalitions which include the center-right party; panel D refers to ruling coalitions which include the populist right party. Description of covariates, data sources and summary statistics are reported in Tables V2 and A1. OLS regressions with robust standard errors clustered at the legislature level in parenthesis. *, ** and *** denote significance levels at 10%, 5% and 1%, respectively.

Table A16: TREATMENT AND CABINET MEMBERS (UNCONDITIONAL - EXTENSIVE MARGIN)

	Control Group		Treated Group		(1)	(2)	
	mean	SD	mean	SD	p-value	p-value	obs.
PANEL A. LEFT PARTY							
Age>55	0.14	0.35	0.27	0.44	0.00	0.00	439.00
Bachelor>20%	0.93	0.25	0.93	0.26	0.85	0.85	439.00
Women>20%	0.51	0.50	0.64	0.48	0.01	0.01	439.00
Employees>20%	0.85	0.36	0.88	0.33	0.38	0.27	439.00
Professional>20%	0.65	0.48	0.63	0.48	0.69	1.00	439.00
PANEL B. CENTER-LEFT PARTY							
Age>55	0.20	0.40	0.15	0.35	0.16	0.10	578.00
Bachelor>20%	0.95	0.22	0.93	0.26	0.33	0.59	578.00
Women>20%	0.56	0.50	0.50	0.50	0.20	0.10	578.00
Employees>20%	0.85	0.35	0.89	0.32	0.32	0.26	578.00
Professional>20%	0.69	0.46	0.65	0.48	0.32	0.51	578.00
PANEL C. CENTER-RIGHT PARTY							
Age>55	0.17	0.38	0.27	0.44	0.03	0.12	381.00
Bachelor>20%	0.93	0.25	0.93	0.25	0.93	0.60	381.00
Women>20%	0.21	0.41	0.30	0.46	0.07	0.06	381.00
Employees>20%	0.67	0.47	0.62	0.49	0.31	0.24	381.00
Professional>20%	0.90	0.31	0.94	0.24	0.15	0.01	381.00
PANEL D. POPULIST RIGHT PARTY							
Age>55	0.25	0.43	0.20	0.41	0.59	0.44	150.00
Bachelor>20%	0.91	0.29	0.89	0.32	0.72	0.67	150.00
Women>20%	0.34	0.48	0.23	0.42	0.18	0.07	150.00
Employees>20%	0.74	0.44	0.61	0.49	0.14	0.10	150.00
Professional>20%	0.89	0.32	0.98	0.15	0.07	0.02	150.00

Variables description and data sources are reported in Tables V1. For each variable, means and standard deviations in both the control group and the treatment group are reported. Column (1) reports the p-value of the test on the equality of means; Column (2) reports the p-values of the treatment coefficient of a regression which includes as control only the number of running parties fixed effect, as from equation (1).

Table A17: TREATMENT AND CABINET MEMBERS (EXTENSIVE MARGIN)

	AGE>50		BACHELOR>20%		WOMEN>20%		EMPLOYEES>20%		PROFESSIONAL>20%	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Sample A: LEFT PARTY										
TREATED PARTY	0.125***	0.126***	0.005	0.003	0.131***	0.114**	0.040	0.019	0.000	0.022
	(0.042)	(0.043)	(0.027)	(0.026)	(0.050)	(0.048)	(0.036)	(0.036)	(0.051)	(0.050)
Mean Dependent	0.18	0.18	0.93	0.93	0.55	0.55	0.86	0.86	0.64	0.64
Observations	439	439	439	439	439	439	439	439	439	439
R-Square	0.05	0.16	0.05	0.12	0.07	0.20	0.03	0.16	0.05	0.15
Sample A: CENTER-LEFT PARTY										
TREATED PARTY	-0.058*	-0.042	-0.012	-0.011	-0.079*	-0.079	0.036	0.036	-0.031	-0.033
	(0.035)	(0.035)	(0.022)	(0.022)	(0.048)	(0.049)	(0.032)	(0.032)	(0.047)	(0.046)
Mean Dependent	0.18	0.18	0.94	0.94	0.54	0.54	0.86	0.86	0.68	0.68
Observations	578	578	578	578	578	578	578	578	578	578
R-Square	0.02	0.10	0.03	0.10	0.07	0.18	0.03	0.13	0.04	0.15
Sample A: CENTER-RIGHT PARTY										
TREATED PARTY	0.079	0.072	0.015	0.020	0.092*	0.103**	-0.067	-0.075	0.076**	0.075**
	(0.050)	(0.049)	(0.029)	(0.030)	(0.049)	(0.049)	(0.057)	(0.060)	(0.030)	(0.032)
Mean Dependent	0.20	0.20	0.93	0.93	0.24	0.24	0.65	0.65	0.91	0.91
Observations	381	381	381	381	381	381	381	381	381	381
R-Square	0.06	0.11	0.02	0.12	0.09	0.17	0.03	0.12	0.07	0.13
Sample A: POPULIST RIGHT PARTY										
TREATED PARTY	-0.058	-0.109	-0.025	-0.042	-0.143*	-0.166*	-0.143*	-0.082	0.093**	0.072
	(0.074)	(0.084)	(0.059)	(0.068)	(0.080)	(0.090)	(0.086)	(0.094)	(0.038)	(0.048)
Mean Dependent	0.23	0.23	0.90	0.90	0.31	0.31	0.70	0.70	0.91	0.91
Observations	150	150	150	150	150	150	150	150	150	150
R-Square	0.07	0.27	0.06	0.21	0.08	0.23	0.08	0.32	0.10	0.28
Running Parties FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Post 2009 FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Geographical Characteristics	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓
Mayors Characteristics	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓
Election Characteristics	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓

Notes: The dependent variable are: a dummy variable equal to one if the average age of the member of the Cabinet is higher than 55 years and zero otherwise in columns (1) and (2); a dummy variable equal to one if the share of member with a bachelor degree in the Cabinet is higher than the 20% and zero otherwise in columns (3) and (4); a dummy variable equal to one if the share of women in the Cabinet is higher than the 20% and zero otherwise in columns (5) and (6); a dummy variable equal to one if the share of administrative employees in the Cabinet is higher than the 20% and zero otherwise in columns (7) and (8); a dummy variable equal to one if the share of professionals in the Cabinet is higher than the 20% and zero otherwise in columns (9) and (10). See Table V1 for details and Table A16 for summary statistics. Treated Party is a dummy variable equal to one if the party is in the focal point in the ballot paper and zero otherwise. The sample includes ruling coalitions with more then two running parties in municipalities with more than 15,000 inhabitants in the period 2002-2012 (see text for details). Panel A includes ruling coalitions with the left party; panel B includes ruling coalitions with the center-left party; panel C includes ruling coalitions with the center-right party; panel D includes ruling coalitions with the populist right party. Description of covariates, data sources and summary statistics are reported in Tables V2 and A1. OLS regressions with robust standard errors clustered at the legislature level in parenthesis. *, ** and *** denote significance levels at 10%, 5% and 1%, respectively.

Table A18: TREATMENT ON COUNCILORS (UNCONDITIONAL EFFECT)

	Control Group		Treated Group		(1)	(2)	
	mean	SD	mean	SD	p-value	p-value	obs.
PANEL A. LEFT PARTY							
Age	45.40	2.95	45.40	3.07	1.00	0.64	439.00
Schooling	14.31	1.24	14.20	1.15	0.34	0.26	439.00
Women	0.14	0.09	0.15	0.09	0.18	0.57	439.00
Employees	0.36	0.13	0.39	0.13	0.01	0.00	439.00
Professional	0.34	0.15	0.30	0.13	0.00	0.11	439.00
PANEL B. CENTER-LEFT PARTY							
Age	45.56	2.94	45.02	3.24	0.06	0.46	578.00
Schooling	14.28	1.24	14.30	1.15	0.87	0.48	578.00
Women	0.14	0.10	0.16	0.10	0.03	0.26	578.00
Employees	0.37	0.14	0.37	0.13	0.89	0.59	578.00
Professional	0.33	0.14	0.33	0.16	0.82	0.32	578.00
PANEL C. CENTER-RIGHT PARTY							
Age	45.61	2.78	45.66	2.72	0.86	0.91	381.00
Schooling	14.38	1.09	14.40	1.07	0.86	0.22	381.00
Women	0.10	0.08	0.11	0.08	0.10	0.68	381.00
Employees	0.34	0.13	0.33	0.12	0.70	0.59	381.00
Professional	0.40	0.14	0.40	0.16	0.67	0.76	381.00
PANEL D. POPULIST RIGHT PARTY							
Age	45.94	2.82	46.45	2.43	0.30	0.39	150.00
Schooling	14.11	1.05	14.21	1.18	0.63	0.52	150.00
Women	0.15	0.08	0.14	0.07	0.38	0.28	150.00
Employees	0.35	0.11	0.32	0.11	0.05	0.02	150.00
Professional	0.36	0.12	0.35	0.12	0.69	0.84	150.00

Variables description and data sources are reported in Tables V1. For each variable, means and standard deviations in both the control group and the treatment group are reported. Column (1) reports the p-value of the test on the equality of means; Column (2) reports the p-values of the treatment coefficient of a regression which includes as control only the number of running parties fixed effect, as from equation (1).

Table A19: TREATMENT ON COUNCILORS (INTENSIVE MARGIN)

	AGE		SCHOOLING		WOMEN		EMPLOYEES		PROFESSIONAL	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Sample A: LEFT PARTY										
TREATED PARTY	0.150	0.251	-0.138	-0.058	0.005	0.000	0.039***	0.032**	-0.022	-0.012
	(0.321)	(0.302)	(0.122)	(0.111)	(0.009)	(0.009)	(0.014)	(0.014)	(0.014)	(0.013)
Mean Dependent	45.40	45.40	14.27	14.27	0.14	0.14	0.37	0.37	0.33	0.33
Observations	439	439	439	439	439	439	439	439	439	439
R-Square	0.05	0.24	0.10	0.29	0.09	0.26	0.03	0.12	0.12	0.32
Sample A: CENTER-LEFT PARTY										
TREATED PARTY	-0.219	-0.027	0.080	0.038	0.010	0.010	-0.007	-0.007	0.015	0.015
	(0.297)	(0.281)	(0.113)	(0.107)	(0.009)	(0.008)	(0.013)	(0.013)	(0.015)	(0.014)
Mean Dependent	45.42	45.42	14.28	14.28	0.15	0.15	0.37	0.37	0.33	0.33
Observations	578	578	578	578	578	578	578	578	578	578
R-Square	0.05	0.20	0.07	0.26	0.11	0.33	0.01	0.10	0.10	0.32
Sample A: CENTER-RIGHT PARTY										
TREATED PARTY	0.037	0.022	0.152	0.187*	0.004	0.003	-0.008	-0.006	0.006	0.009
	(0.314)	(0.309)	(0.123)	(0.113)	(0.009)	(0.008)	(0.014)	(0.015)	(0.018)	(0.017)
Mean Dependent	45.63	45.63	14.39	14.39	0.10	0.10	0.33	0.33	0.40	0.40
Observations	381	381	381	381	381	381	381	381	381	381
R-Square	0.01	0.18	0.08	0.28	0.09	0.30	0.02	0.09	0.05	0.23
Sample A: POPULIST RIGHT PARTY										
TREATED PARTY	0.414	-0.020	0.129	0.201	-0.014	-0.025*	-0.044**	-0.044**	-0.004	0.010
	(0.476)	(0.513)	(0.201)	(0.206)	(0.013)	(0.014)	(0.019)	(0.020)	(0.023)	(0.023)
Mean Dependent	46.09	46.09	14.14	14.14	0.14	0.14	0.34	0.34	0.36	0.36
Observations	150	150	150	150	150	150	150	150	150	150
R-Square	0.07	0.33	0.11	0.41	0.14	0.31	0.10	0.40	0.04	0.34
Running Parties FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Post 2009 FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Geographical Characteristics	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓
Mayors Characteristics	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓
Election Characteristics	✗	✓	✗	✓	✗	✓	✗	✓	✗	✓

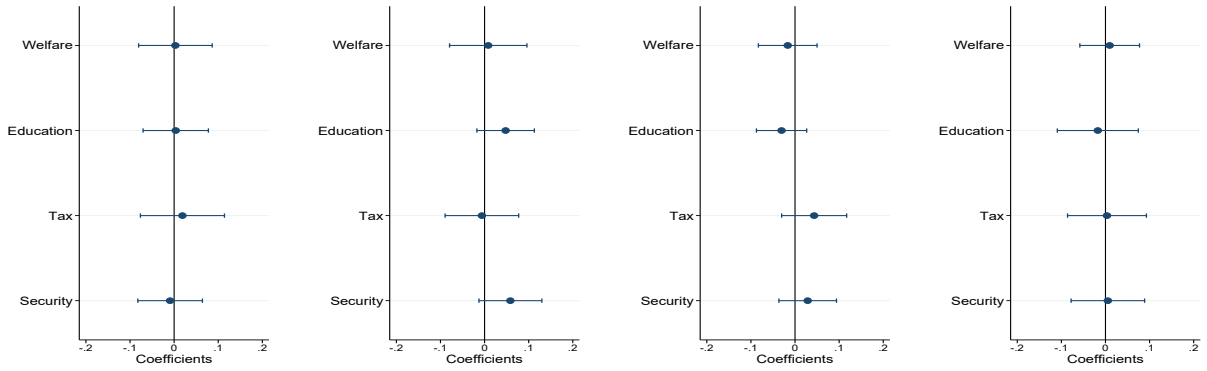
Notes: The dependent variable are the following characteristics of members of the city council: average age in columns (1) and (2); the average years of schooling in columns (3) and (4); the share of women in columns (5) and (6); the share of administrative employees in columns (7) and (8); the share of professionals in columns (9) and (10). See Table V1 for details and Table A18 for summary statistics. Treated Party is a dummy variable equal to one if the party is in the focal point in the ballot paper and zero otherwise. The sample includes ruling coalitions with more then two running parties in municipalities with more than 15,000 inhabitants in the period 2002-2012 (see text for details). Panel A refers to ruling coalitions which include the left party; panel B refers to ruling coalitions which include the center-left party; panel C refers to ruling coalitions which include the center-right party; panel D refers to ruling coalitions which include the populist right party. Description of covariates, data sources and summary statistics are reported in Tables V2 and A1. OLS regressions with robust standard errors clustered at the legislature level in parenthesis. *, ** and *** denote significance levels at 10%, 5% and 1%, respectively.

Table A20: RANDOMIZATION OF POLITICAL POWER: MAIN PARTIES (LOSING COALITIONS)

Panel A. Dependent Variable:	SHARE OF VOTES W/I RULING COALITION							
	LEFT		CENTER-LEFT		CENTER-RIGHT		POPULIST R.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TREATED PARTY	2.480*	2.457*	6.767***	6.430***	1.900	2.317*	2.750	4.428*
	(1.267)	(1.288)	(1.891)	(1.670)	(1.356)	(1.286)	(2.830)	(2.550)
Mean Dependent	12.62	12.62	44.95	44.95	48.53	48.53	20.32	20.32
Observations	211	211	335	335	474	474	146	146
R-Square	0.22	0.31	0.35	0.51	0.26	0.46	0.30	0.56
Panel B. Dependent Variable:	SHARE OF SEATS W/I RULING COALITION							
	LEFT		CENTER-LEFT		CENTER-RIGHT		POPULIST R.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
TREATED PARTY	1.390	1.501	11.797***	11.526***	3.741*	2.988	2.705	4.437
	(1.854)	(1.945)	(2.928)	(2.792)	(2.151)	(2.130)	(4.366)	(4.005)
Mean Dependent	8.83	8.83	55.55	55.55	59.06	59.06	19.98	19.98
Observations	211	211	335	335	474	474	146	146
R-Square	0.06	0.19	0.25	0.37	0.15	0.32	0.20	0.49
Running Parties FE	✓	✓	✓	✓	✓	✓	✓	✓
Post 2009 FE	✓	✓	✓	✓	✓	✓	✓	✓
Geographical Characteristics	✗	✓	✗	✓	✗	✓	✗	✓
Mayors Characteristics	✗	✓	✗	✓	✗	✓	✗	✓
Election Characteristics	✗	✓	✗	✓	✗	✓	✗	✓

The dependent variable is the party share of votes within a coalition. Treated Party is a dummy variable equal to one if the party is in the focal point on the ballot paper and zero otherwise. The sample includes losing coalitions with more then two running parties in municipalities with greater than 15,000 inhabitants in the period 2002-2012 (see text for details). Columns (1) and (2) include losing coalitions with the left-wing party; columns (3) and (4) include losing coalitions with the center-left party; columns (5) and (6) include losing coalitions with the center-right party; column (7) and (8) include losing coalitions with the populist right party. Description of covariates and data sources are reported in Tables V2. OLS regressions with robust standard errors clustered at the legislature level in parenthesis. *, **, and *** denote significance levels at 10%, 5%, and 1%, respectively.

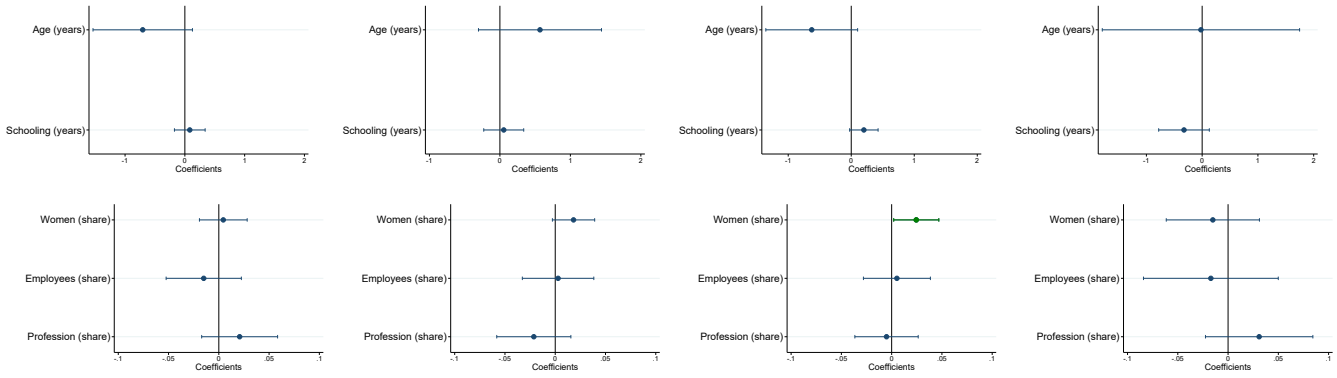
Figure A3: TREATMENT AND POLICIES (LOSING COALITIONS)



(a) LEFT (b) CENTER-LEFT (c) CENTER-RIGHT (d) POPULIST RIGHT

Notes: The graph reports coefficient estimates of random treatment of each party estimated as in equation (1) in fully conditioned empirical specifications that account for all fixed effects and covariates. *Dependent variables*: current expenditure per capita devoted to public social services (welfare); current expenditure per capita devoted to public education (education); revenues per capita from the real estate tax on home properties (Tax); current expenditure per capita devoted to local police and justice services (security). *Treated Party* is a dummy variable equal to one if the party is randomly located in the focal point on the ballot paper and zero otherwise. *Sample*: the different sub-figures report the estimates using the sample of all losing coalitions containing the respective party. Coefficients in red (green) are significant at the 5% (10%) levels, respectively. The bars illustrate confidence intervals at limit (10%) significance level.

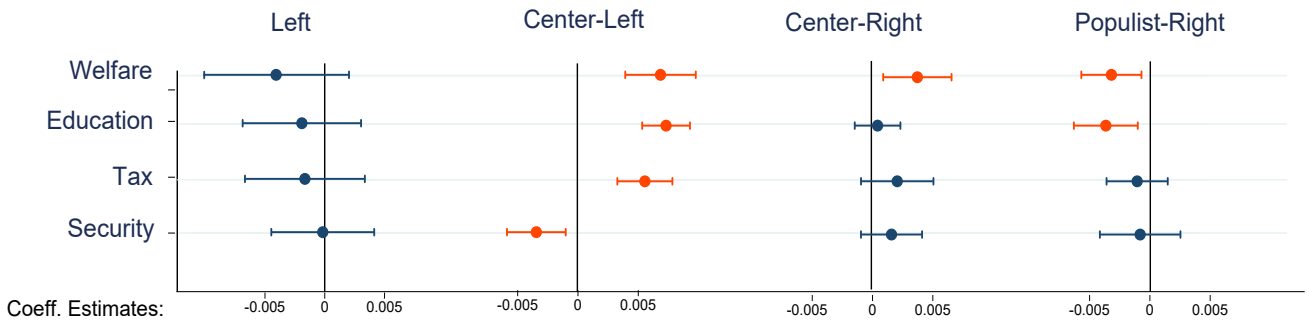
Figure A4: TREATMENT AND CABINET MEMBERS (LOSING COALITIONS)



(a) LEFT (b) CENTER-LEFT (c) CENTER-RIGHT (d) POPULIST RIGHT

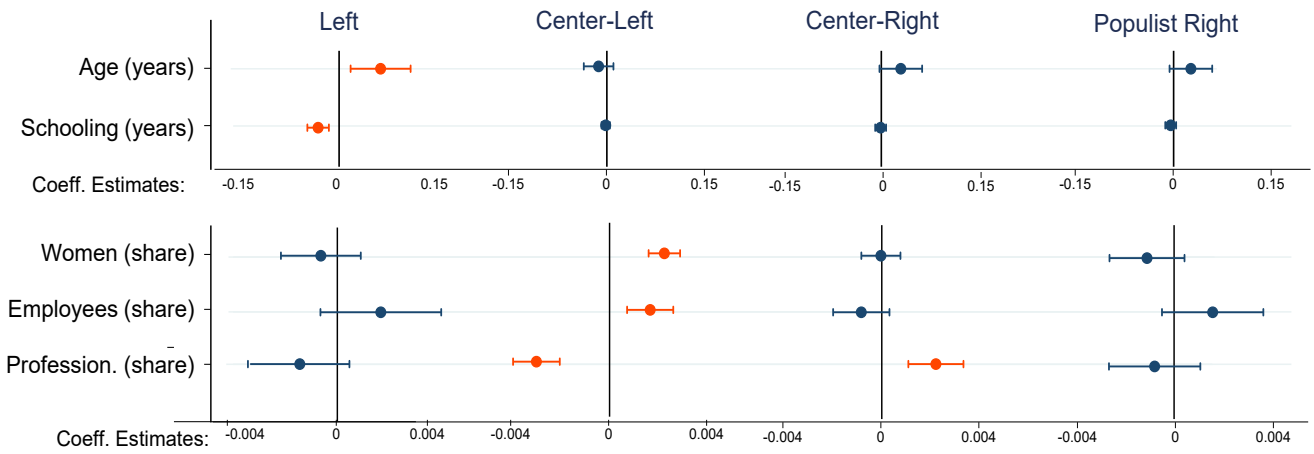
Note: The graph reports coefficient estimates of random treatment of each party estimated as in equation (1) in fully conditioned empirical specifications that account for all fixed effects and covariates. The *dependent variables* are the average age of the cabinet members (in years); their average years of schooling; share of women ; share of administrative employees; and share of professionals. *Treated Party* is a dummy variable equal to one if the party is in the focal point on the ballot paper and zero otherwise. *Sample*: all losing coalitions containing the respective party. The point represents the estimated coefficient of a regression that includes all the covariates described in Table V2. Point estimates in red (respectively green) are significant at least at the 5% (respectively 10%) level with confidence intervals at limit (10%) significance level.

Figure A5: TREATMENT AND POLICIES (CORRELATION REGRESSIONS)



Notes: The graph reports coefficient estimates of the share of councillors obtained by each party (instead of the treatment dummy) as in equation (1) in fully conditioned empirical specifications that account for all fixed effects and covariates. *Dependent variables*: current expenditure per capita devoted to public social services (welfare); current expenditure per capita devoted to public education (education); revenues per capita from the real estate tax on home properties (Tax); current expenditure per capita devoted to local police and justice services (security). *Share of Councillors w/i Coalition.* the seats obtained by the party over the total number of seats obtained by the parties of the coalition. *Sample*: the different sub-figures report the estimates using the sample of all ruling coalitions containing the respective party. Coefficient in red (green) are significant at the 5% (10%) levels, respectively. The bars illustrates confidence intervals at limit (10%) significance level. Empirical results and further statistics are reported in extensive form in Table A13 in the Appendix.

Figure A6: TREATMENT AND CABINET MEMBERS (CORRELATION REGRESSIONS)



Notes: The graph reports coefficient estimates of the share of councillors obtained by each party (instead of the treatment dummy) as in equation (1) in fully conditioned empirical specifications that account for all fixed effects and covariates. The *dependent variables* are the average age of the cabinet members (in years); their average years of schooling; share of women; share of administrative employees; and share of professionals. *Share of Councillors w/i Coalition:* the seats obtained by the party over the total number of seats obtained by the parties of the coalition. *Sample*: all ruling coalitions containing the respective party. The point represents the estimated coefficient of a regression that includes all the covariates described in Table V2. Point estimates in red (respectively green) are significant at least at the 5% (respectively 10%) level with confidence intervals at limit (10%) significance level. The estimated coefficients and all the additional information are also reported in Table A15 in the Appendix.

Table A21: SUMMARY STATISTICS: CABINET MEMBERS (EXTENSIVE MARGIN)

Variable	N	Mean	Sd	Min.	Max.	N	Mean	Sd	Min.	Max.
	LEFT PARTY					CENTER-LEFT PARTY				
Age>55	439	.18	.39	0	1	578	.18	.39	0	1
Bachelor>20%	439	.93	.25	0	1	578	.94	.23	0	1
Women>20%	439	.55	.5	0	1	578	.54	.5	0	1
Employees>20%	439	.86	.35	0	1	578	.86	.34	0	1
Professional>20%	439	.64	.48	0	1	578	.68	.47	0	1
	CENTER-RIGHT PARTY					POPULIST RIGHT PARTY				
Age>55	381	.2	.4	0	1	150	.23	.42	0	1
Bachelor>20%	381	.93	.25	0	1	150	.9	.3	0	1
Women>20%	381	.24	.43	0	1	150	.31	.46	0	1
Employees>20%	381	.65	.48	0	1	150	.7	.46	0	1
Professional>20%	381	.91	.29	0	1	150	.91	.28	0	1

Table A22: SUMMARY STATISTICS: COUNCILORS

Variable	N	Mean	Sd	Min.	Max.	N	Mean	Sd	Min.	Max.
	LEFT PARTY					CENTER-LEFT PARTY				
Age	439	45	3	36	55	578	45	3	35	55
Schooling	439	14	1.2	11	17	578	14	1.2	11	18
Women	439	.14	.092	0	.46	578	.15	.097	0	.46
Employees	439	.37	.13	0	.75	578	.37	.14	0	.75
Professional	439	.33	.14	0	.8	578	.33	.15	0	.85
	CENTER-RIGHT PARTY					POPULIST RIGHT PARTY				
Age	381	46	2.8	37	53	150	46	2.7	38	52
Schooling	381	14	1.1	11	17	150	14	1.1	11	16
Women	381	.1	.076	0	.39	150	.14	.075	0	.45
Employees	381	.33	.12	.043	.82	150	.34	.11	.083	.6
Professional	381	.4	.15	.05	.81	150	.36	.12	.1	.73