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DANCING WITH THE POPULIST. NEW PARTIES, ELECTORAL RULES AND ITALIAN MUNICIPAL ELECTIONS

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Keywords: voting behavior, populism, Five Star Movement, municipal elections

Dancing with the Populist. New Parties, Electoral Rules and Italian Municipal Elections*

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Abstract

This paper develops a theoretical framework that makes predictions on (a) the conditions under which a populist party decides to run and the policy position it takes and (b) voters' response under different electoral systems. We test these predictions using data on Italian municipal elections over the 2009-2019 period and focusing on the electoral outcomes of the Five Star Movement. The empirical analysis shows: (i) populists are more likely to run under a Dual Ballot (DB) system and in municipalities where there is a large share of dissatisfied voters; (ii) when the populist runs, turnout increases under both Single and Dual Ballot systems; (iii) in a DB system, the populist candidate who ranked second in the first round has a higher probability of winning than the candidate of traditional party who ranked second by the same margin, as a result of increased turnout in the second round. We finally provide evidence that the low education and the young age of populist candidates are likely to deteriorate the efficiency of the local administration.

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1 Introduction

All over the world, populist parties and movements are growing ever more strongly and established parties appear to lose ground (Rodrik, 2018; Taggart, 2012). Populist movements build upon the frustration and the distrust of large groups of voters towards the traditional political system, perceived as deeply corrupt and insensible to citizens' wishes. They also adopt a "thin centered ideology" (Guriev & Papaioannou, 2020; Mudde & Kaltwasser, 2017) that paints the fundamental conflict in society as the one between the "elite" and the "people", where the elite is depicted as inevitably corrupt and the people as fundamentally sound, honest, and blessed with some natural wisdom. Populists are surely radical in the sense that they tend to distrust the checks and balances of liberal democracies; however, they are not necessarily radical in the sense of adopting extreme political positions.[1] The orientation choice of populist parties on the left to the right political dimension is instead more instrumental, depending on the political space left available by the mainstream political parties (Guiso *et al.* , 2017) and on the salience of the different type of shocks hitting societies (Rodrik, 2018).

This last point is particularly relevant for the case of the most successful European populist party to date, the Italian Five Star Movement (FSM). In less than 10 years since its foundation, the FSM became the most voted party at the Italian national elections of March 2018, netting 32% of votes and becoming the main partner in the national government. Many observers suggest that behind this astounding success of the FSM there is the deliberate choice of the FSM leadership to refuse positioning the party on the traditional left to right political axis. FSM did not adopt a specific "host ideology"; rather "it drew its ideological repertoire from issues that have been usually attached to populist actors located either on the left or the right end of the political spectrum" (Pirro, 2018).[2] In the Italian context, traditionally characterized by a sharp ideological polarization of the electorate (Bordignon *et al.* , 2017; Bordignon, 2017), this "polyvalent populism" was instrumental to the party's electoral success, allowing the FSM to appeal to disillusioned voters of both sides of the political spectrum.[3]

This paper focuses on the interplay between the electoral system, voters disaffection,

[1] Although populists often rely on thicker "host ideologies", such as nationalism or socialism, for the promotion of political projects that can be appealing to a broader public ((Mudde & Kaltwasser, 2017).

[2] See also the discussion in Zulianello (2019). This author classifies the FSM as a "valence" populist party in order to distinguish it from left and right wing populists.

[3] Obviously, it was easier for FSM to maintain this contradictory ideological agenda while being in opposition than in government, and it is an open question whether its recent national government experience will allow the party to survive its own contradictions.

and political platform to investigate the conditions under which a populist party decides to enter the political arena and achieves electoral success. To this end, we first set up a theoretical model to gain some insights on the mechanisms at work; we then test the empirical predictions of the model using the universe of municipal elections in Italy from 2010 (i.e. first local election that the FSM contested) to 2019.[4]

The theoretical model is built on the idea that voters care about policies on the traditional left to right dimension but that they also dislike mainstream parties, particularly after a shock that has shown their inability to address citizens' problems, leading many unsatisfied voters to abstain at the elections. This offers the populist party an opportunity to enter (paying some organizational cost) in the electoral competition. The model assumes a strong polarized electorate on the left to right dimension and mainstream parties representing these political preferences. These parties might try to react to the threat of populist entry by changing their offer of policies and/or trying to become, at a cost, less "mainstream" in the eyes of voters. The model generates several predictions: 1) under the single ballot, if he/she enters, the populist party runs on a "centrist" agenda, intermediate between the policy positions of the two mainstream parties, while under a dual ballot the populist might run even on somewhat more extreme positions; 2) in any case, the populist wins more easily under the runoff than under the single ballot mechanism: if the populist reaches the second round he/she can then attract some of the voters of the mainstream candidate who did not make at this round; this would not be possible for mainstream candidates; 3) the populist enters only if there are enough unsatisfied voters; since he/she wins more often under the runoff, he/she is more likely to compete in municipalities adopting this system than in those adopting the single ballot mechanism; 4) upon the entry of the populist, electoral turnout always increases; this is because (i) the populist is able to get the support of unsatisfied voters who would otherwise abstain and (ii) he/she can attract the votes of the excluded mainstream candidate in the second round. 5) Mainstream parties react to the populist's threat by proposing new candidates at the elections rather than by changing their political platforms. e.g. by presenting new and less established candidates at the elections.

The empirical evidence strongly supports all these predictions. While we cannot directly test prediction 1 on municipal policies because of data limitations, we provide survey

[4] Municipalities are an important level of government in Italy and their mere number allows us to test precisely the predictions of the model, using a battery of different identification strategies (Bordignon *et al.* , 2016).Italian municipalities vote with a different electoral system depending on their population: below 15,000 inhabitants, municipalities elect their mayor (and the local council) with a first-pass-the post system in a single ballot, while above the threshold there is a runoff between the two most voted candidates at the first round.

evidence that supporters of FSM place themselves at the center of a left to right scale, in sharp contrast for instance with supporters of a far-right populist party, i.e. *Lega*. Concerning prediction 2, to identify the causal estimate of populist advantage in the second round, we employ a regression discontinuity design comparing municipal elections in which a FSM candidate ranked third in the first round to the ones in which he/she ranked second and thus qualified to the second round. Regression results show that the populist's probability of winning the election increases by about 54 percentage points when he/she qualifies for the second round. Under the same conditions, when a populist candidate runs at the second ballot, turnout also increases by about 9 percentage points at the final ballot, consistent with the prediction that a fraction of first round voters of the excluded mainstream candidate turn out to vote for the populist at the second round. The estimated effects almost double in size when the populist in the second round faces an opponent aligned with the current national government, i.e. perceived as more established. As a robustness exercise, we also show that the same effect did not occur when the second round candidate belongs to another populist party positioned on far-right positions, i.e. *Lega*. We draw from a variety of data sources, including electoral surveys, to test for prediction 3; we find that a FSM candidate is more likely to run in municipalities in which unemployment is higher and the participation at the previous elections has been lower, i.e. where the share of unsatisfied voters is large. We then apply a regression discontinuity design to the 15,000 population threshold determining if a municipality elects the mayor with a runoff system or a single round elections; results indicate that the probability of running for FSM candidates is between 10 to 15 percentage points higher if the municipality's electoral system is a runoff. Coherently with prediction 4, electoral participation seems to increase at both the single ballot and the first round of the runoff when a FSM candidate runs. Finally, we look at the effect of having a populist mayor on indicators of performance at municipal level (Gagliarducci & Nannicini, 2013). We show that when a populist candidate runs in the second round, the share of tax collected by the municipality in the subsequent year falls by about 6 percentage points. This could be explained by the fact that, when the FSM qualifies for the second round, the winner of the election is on average 10 year younger and 47% less likely to be tertiary educated than when the second round is between candidates belonging to traditional parties.

Overall, these findings suggest that FSM candidates have an advantage in runoff political systems as a result of their ambiguous ideological agenda. This paper further provides first time evidence on the effects of populist parties on political outcomes and municipalities' performance. FSM participation in municipal elections increases voter turnout; it also leads to a renewal of the local political class, partly because FSM candidates were generally *homini novi* and partly as a consequence of the reaction of traditional parties. However,

there is also an issue of competence as these new government officials are less experienced and less educated than the mainstream candidates. Efficiency in municipal governments, as measured by capacity of collecting local revenues, deteriorates one year after the election.

Our results speak to different literatures. First, we add to the on-going debate in political science on the effectiveness of majoritarian electoral systems in keeping populists out of power (Arzheimer & Carter, 2006; March & Rommerskirchen, 2015; Rooduijn, 2015; Wiese & Jong-A-Pin, 2017);[5] we provide evidence that when a populist party does not adopt extreme positions, it may benefit by strong majoritarian systems in a polarized political landscape. Second, our findings relate to the analysis of the characteristics of politicians and voters of populist parties in Europe (Dal Bó *et al.* , 2018);[6] the entry of the FSM increased the political participation of of marginalized voters and renewed the (local) political class, with elected representatives being younger and hence more similar to their voters than the mainstream parties leadership. Finally, by showing that voters' disaffection and economic difficulties have been instrumental to the success of FSM in Italy, we contribute to the burgeoning literature in economics and political science on the surge of populist parties in Western democracies (Gennaro *et al.* , 2020). Typical questions asked in this literature are whether economic (Colantone & Stanig, 2018; Guiso *et al.* , 2017, 2019; Guriev, 2018) rather than cultural reasons (Goodhart & Lastra, 2018; Norris & Inglehart, 2016) lie behind the phenomenon, and why this new version of populism in Europe seems associated mostly with (radical) right wing parties (Piketty, 2018) and with a resurgence of cultural identification issues (Besley & Persson, 2019; Gennaioli & Tabellini, 2019).

The rest of the paper is organized as follows. Section 2 offers some backgrounds on the Italian political system and on the birth and evolution of the FSM and other populist parties. Section 3 presents our model, derives the main theoretical results of the paper, and summarizes the main empirical predictions of the model. Section 4 provides a description of the data and presents the results of the empirical analysis. Section 5 concludes.[7]

[5] This is based on the idea that populists are positioned on extreme ideological positions, which will then push moderate parties and moderate voters to coordinate in order to keep them out of power. The examples of UKIP in the UK elections in 2015 (12.6% of votes and only 0.2% of seats) and of FN in France in 2017 (more than 10M votes and only 8 seats) are often quoted as examples of this ability of not proportional electoral systems to keep populist parties out of parliament. In contrast, under a proportional system, both AFD in Germany and PVV in NL obtained a relevant share of seats at the last elections.

[6] Dal Bó *et al.* (2018) analyze the experience of Social Democrats, a radical right populist Swedish party currently polling at the third place in the country. They adopt a citizen-candidate framework and conclude that entry of this populist party in the political arena increased representation of marginalized voters, at the cost however of electing politicians of lower valence and competence.

[7] Appendix A collects the proofs of the main propositions in section 3. Appendix B reports additional tables and figures. Appendix C discusses in more detail the theoretical extensions briefly summarized in section 4.

2 Institutional background

2.1 Italian political system

Since 1994, the Italian political system has become "bi-polar" although not strictly speaking "bi-partisan" (D'Alimonte, 2001). This was mainly the consequence of a number of reforms of the electoral system of national and local governments passed at the beginning of the 1990's. For the former, in 1994, following a national referendum and as a result of a corruption scandal that had led to the disappearance of the old ruling parties (the so called "Clean Hands" trial), the national electoral system was reformed. It moved from the traditional pure proportional system to a mixed one based on a first-pass-the post mechanism in single candidate districts for 75% of the seats in both Houses of the Parliament. The remaining seats were allocated through a proportional system giving a larger weight to the parties supporting the best losers in single candidate districts. The new system also introduced a minimum threshold of electoral support (3% of votes at the national level) for parties to obtain parliamentary seats[8]. The reform provided a strong incentive to the several Italian political parties existing at the time to form ex-ante coalitions in order to compete at the elections. One coalition formed around Forza Italia, the new party of the media tycoon Silvio Berlusconi that entered in the political arena in 1994. This coalition has always typically included *Lega* and other right wing and centrist parties. Another coalition formed around the Democratic Party, a moderate party of the left, and has typically included both centrist and more extreme leftish parties. Parties that did not enter in one of the two main coalitions either disappeared or were reduced to a very small size. Small centrist parties in particular typically entered in a coalition with one or the other main group, often alternating side between elections.

The same two main coalitions competed at all local elections held since 1994, at the regional, provincial and municipal level, as the electoral systems of these local governments were also reformed moving from a pure proportional system towards a majoritarian one (see below for a description of the municipal electoral system). At both national and local level, the new system generated political alternation, with both the center-right and the center-left coalition being alternatively in power at the different levels of government[9]. So for example, at the national level the center-right coalition won in 1994, 2001 and 2008, while the center-left coalition won in 1996 and in 2006. The head of the winning coalition was

[8] For a thorough discussion of the genesis of the Italian electoral system in 1994 see D'Alimonte (2001) and Katz (2001).

[9] This should be contrasted with the experience of post war Italy, when a large centrist party (the Christian Democrats) was uninterruptedly in power at the national level from 1948 to 1993.

designed by the President of the Republic to become prime minister and form an executive that could gain the confidence vote in both Houses, a necessity in the perfectly bi-cameral Italian parliamentary system. In 2005, the national electoral system was reformed again, going back to a proportional one (first-pass-the post districts were abolished) but still giving a strong premium in terms of seats to the political parties running in the winning coalition. So for example, at the 2013 elections, although FSM was the most voted Italian party (with 25,5% of the votes), it got less seats (109) at the Lower house than the Democratic Party (25,4% of votes and 292 seats), that had led the winning coalition in the Chamber[10]

During the '90's and early 2000's, centrist parties tried several times to break this bi-polar political equilibrium, without never succeeding. Things began to change with the deep economic crises of 2008-9 and 2011-2. In 2011, under the pressure of financial markets, the last Berlusconi government was forced to resign and was substituted by a "technical" government led by Mario Monti, that introduced a sharp correction in the fiscal stance of the country. As an emergency government set up to avoid the default of the country, the Monti executive was supported by all main Italian parties –except *Lega* that remained at the opposition. In 2013, the center left coalition, although winning the majoritarian premium at the Lower House, did not get the majority of seats at the Senate (that also had majoritarian premia, but allocated on a regional basis) and was therefore forced to govern together with the main parties of the center right. Although Forza Italia (now PDL) eventually withdrew its support, leading to a split in the party, a sort of "grosse koalition" made up by parties belonging to both the center right and the center left coalitions governed the country from 2011 up to 2018. In a context of increasing dissatisfaction of voters for the still dismal economic situation of the country [11], this offered a window of opportunity to the opposition parties collocated outside the main coalitions, in particular to FSM. In spite of the disadvantage of running alone[12], FSM managed to get at the 2018 elections

[10] Because of a ruling of the Constitutional Court, the electoral system has been changed once again in 2017, adopting a mixed system, first-pass-the post for 37% of the seats and proportional with several thresholds, again differentiated according on whether a party runs alone or in a coalition, for the remaining seats.

[11] Italy lost 10% of GDP between 2008 and 2013, and in spite of a weak recovery in the subsequent years, in 2019 GDP per capita was still 5% below the 2007 level. As debt over GDP also increases dramatically, this forced the different Italian governments to keep a prudent stance in fiscal policy, although not enough to reduce the debt over GDP ratio. The economic crisis also increased the distance between the most productive regions of the North and the Mezzogiorno as well among different segments in the society. This led to a collapse of the support of traditional parties, as discussed for example by Guiso *et al.* (2019). See Bordignon (2017) for further details.

[12] Traditionally, FSM always runs alone in any competition, national or local, to avoid merging with other less "pure" parties. Incidentally, this allows us to identify unambiguously the presence of this party at all municipal elections at which it participated in the 2010-19 period. Things only changed in late 2019, when the FSM began considering the possibility of alliance with civic lists and government partners.

32% of votes and 36% of the seats in both Houses, thus becoming an essential partner in any government coalition. Breaking up the center-right coalition, a government was first formed between FSM and *Lega* in 2018 and then, following the collapse of this government in 2019, by another coalition government between FSM, the Democratic Party and other smaller centrist and leftish parties.

2.2 Italian populists: Five Star Movement and Lega

FSM started not as a political party but as a movement of opinion created by the comedian Beppe Grillo (and his partner Giandomenico Casaleggio) through his blog (Biorcio, 2014; Natale & Ballatore, 2014; Turner, 2013). Launched in 2005, it gained prominence as the ninth most powerful blog worldwide (Guardian, 2008), discussing issues such as direct political participation, ecology, employment, environment, the new economic and political opportunities created by the Internet etc. Local "meet-up groups" were created (through the Internet) to discuss similar themes since 2005, and these groups formed the backbone of the future FSM organization across the country. In 2007, the success of the V-day (literally, "fuck-off" day), a mass participation event organized simultaneously in over 200 Italian cities calling for a "clean parliament", showed the increasing popular support for the new movement and led to a change in its political organization (Corbetta & Vignati, 2015). In October 2009 in Milano, the FSM was set up as a fully fledged political party and started contesting elections at the local level with its symbol and on the basis of a 122 -points general program allegedly set up on the basis of a direct consultation with citizens through the Internet.

The detailed analysis of the FSM platforms and blogs made up by Pirro (2018) reveals a combination of themes from contrasting ideological programs. For instance, FSM is strongly anti-elitarian (exalting the virtues of the common man against traditional politicians, of small firms against big corporations and banks, of the democracy of the Internet against traditional news outlets etc.), in favor of direct consultation of citizens on policies (through the Internet) and in general of all forms of participation from below. However, the FSM is also nativist, arguing for an exclusion of immigrants and other national minorities from the supply of public services and criticizing NGOs for helping refugees. The FSM is also deeply suspicious of government bureaucracy (another type of elite); however, it is also in favor of enhanced government intervention, arguing for the public property of utilities and for extended income redistribution. It is also very critical about the EU and the Euro, seen as an elitarian project against the interests of common people. Pirro (2018: 445) concludes that "this seeming ambivalence (of the FSM ideology) would not essentially stem from the

poor institutionalization of a young party, but from a deliberate attempt from the party leadership to win the largest share of (disillusioned) voters".

In contrast, *Lega* is a more traditional radical right wing party. Founded by Umberto Bossi in 1989 with the name *Lega Nord*, it gained consensus at the beginning of the 90's, exploiting the popular outrage towards the corruption of the political class emphasized by the "Clean Hands" trials. Its themes have traditionally been the contrast between the small business and the big corporations (the elite), nativism and anti-immigration issues, fiscal federalism and/or the secession of northern regions (the mythical "Padania") as a response to the excessive taxation imposed by the national government to finance wasteful expenditure and transfers to the lazy south. In spite of the inflammatory rhetoric, however, for a long time *Lega* contented itself with being the junior partner in the Berlusconi coalition and to govern several municipalities and regions in the north part of the country. However, in 2013, following a crisis of consensus induced by a financial scandal, the party elected a new leader, Matteo Salvini, that largely changed the party's political agenda, dropping the secession and fiscal federalism themes (accordingly, the name of the party was also changed) in favor of the national nature of the party as a defender of national sovereignty, emphasized the opposition to immigration and ethnic minorities, supported even more strongly 'law and order' policy measures, adopted a more conservative position on family and civil right issues, and followed an economic 'nativism' approach ferociously critical against the European Union and the Euro. He also invested heavily in generating consensus through the Internet. This strategy paid off, allowing *Lega* to recover consensus in the north and also to win support in the south of the country. At the 2018 elections, *Lega* was the most voted party in the center-right coalition (with 17% of votes against 14% of Forza Italia), allowing Salvini to claim the leadership of the coalition. The experience of government with FSM, where Salvini was minister of interior and passed several harsh measures against immigrants, further increased the popular consensus towards the party.

2.3 Italian municipal elections

Turning to municipalities,[13] the turmoil of the beginning of the '90's lead to a reform of the

[13] Differences among the more than 8,000 Italian municipalities are huge, with respect to size, average income, population density and composition. They are in charge of a large number of services, ranging from general administrative services (like the registry) to local public good provisions (like local transports, public parks and amenities, street lighting and cleaning, urban policy, sport policy, maintenance of school's building, kindergartens), from environmental services (garbage collection and disposal) to public utilities (heating and water provision).

electoral system, which has remained unchanged since. [14] Until 1993, municipal governments in Italy were ruled by a pure parliamentary system. Citizens voted for party lists under proportional representation to elect the legislative body (i.e., the city council); the council then appointed the mayor and the executive office. Since 1993, instead, the mayor has been directly elected under plurality rule, with a single round for municipalities below 15,000 inhabitants, and with a runoff system above (see Law 81/1993). Specifically, below the population threshold, each party (or coalition) presents one candidate for mayor and a list of candidates for the city council. Voters cast a single vote for the mayor and his supporting list (they can also express preference votes over the candidates for councillor within the same list). The mayoral candidate who gets more votes becomes mayor and his list gains 2/3 of all seats in the council. The remaining 1/3 of the seats are divided among the losing lists in proportion of their vote shares.[15] Above the 15,000 threshold, parties (or coalitions) present lists of candidates for the council, and declare their support to a specific candidate for mayor. Each candidate can be supported by more than one list. There are two rounds of voting. At the first round, voters cast two votes, one for a mayoral candidate and one for a party list, and the two votes may be disjoint. Again, they can also express a preference vote over the party list. If a candidate for mayor gets more than 50% of the votes in the first round, he is elected. Otherwise, the two best candidates run against each other in a second round (taking place two weeks after the first round). In this second round, the vote is only over the mayor, not the party lists. Like in the single round system, the rules for the allocation of council seats entail a majority premium for the lists supporting the winning candidate for mayor. The premium is not given only in the (extremely rare) case in which because of the disjoint vote the mayor is elected at the first round, but a list supporting another candidate gets more votes. The new law also introduced a term limit, so an elected Mayor can only serve for another mandate.

3 Theoretical framework

In this section we set up a theoretical framework to provide hindsights about the effect of the different electoral rules on populist strategies and behavior. We will use the results of the model to interpret our data, deriving empirically testable predictions.

We begin by setting up a very simple version of the model, where we deliberately avoid many complications in order to sharpen results and intuition. Some potential extensions are

[14] The only difference is that the duration of the municipal legislature initially set at 4 years was moved to 5 years in 2000.

[15] There is a minimum level that a list must obtain in order to gain seats, equal to 4% of the votes.

briefly discussed in the next section.

3.1 Voters

We assume that the utility of voters depend on two elements: their preferences along a "left to right" policy dimension, and their trust on the traditional political system. The first element captures the traditional cleavage among voters, between who is in favor of more government intervention (say, more taxes and redistribution) and who is against, perhaps as a result of voters' different position on the labor market (say, dependent workers versus self-employers and entrepreneurs). Mainstream policy and party systems have evolved along this dimension in all Western democracies in the last two centuries. However, as discussed in the Introduction, the rise of populism is connected by several authors to the emergence of new cleavages among voters, variously identified as a preference for traditional social values, a distrust towards the ruling classes, a preference for closed societies and so on. Here, we focus on the most basic characteristic of populism, the perceived conflict between the "elite" and the "people" (Mudde & Kaltwasser, 2017; Guriev & Papaioannou, 2020). Mainstream parties, both on the right and the left of the political spectrum, just for having been in charge in the past or for being represented in Parliament, are naturally part of the elite and are therefore accused by populists to be self-serving and corrupt. This is believed by voters with little trust in the traditional political system, regardless their position on the first policy dimension.

We capture these ideas here by assuming that a voter *i's* utility function can be written as:

(1) $U^i = B - (q^i - q)^2 - \alpha^i \gamma E$

where q^i captures voter i's preference on the left to right ideological dimension and the parameter α^i her trust in the established political system. More specifically, we assume that the ideological political dimension can be represented by an interval of the real line, ranging from -1 (say, extreme left) to $+1$ (extreme right); q^i is the bliss point of voter i on this line, while q is the policy chosen by elected politicians through the working of the electoral system (to be described below). Note that in (1) a voter loses utility at an increasing rate as the selected policy is farther from her bliss point.

The parameter α^i instead ranges from $\underline{\alpha} < 0$ to $\overline{\alpha} > 0$ and $E = \{0, 1\}$ captures the fact whether the party that proposes (and if elected, implements) the policy q is an established party ($E = 1$) or a new, populist one ($E = 0$). Notice that in line with the above discussion, we model the trust dimension α^i as separate and independent from voter i's ideological position on the policy dimension. For voters such that $\alpha^i < 0$ the fact that a policy is

proposed and implemented by an established party is actually a plus; these voters feel comforted by the fact that the policy is chosen by a reliable party which is, or has been, in charge even in the past. On the contrary, for voters with $\alpha^i \geq 0$, the opposite is true and regardless of the policy itself, they dislike the fact that the policy is chosen and implemented by an established party, say because they believe that mainstream politicians are invariably corrupt and will end up by appropriating some of the public money devoted to the policy. In what follows, for analytical simplicity, we will assume that α^i is distributed across the population according to an uniform distribution in the interval $\underline{\alpha} = -\frac{1}{2}$ and $\overline{\alpha} = 1$. Notice that this implies that on average voters are dissatisfied with the traditional ruling political class. However, the strength of these "elite-anti elite" preferences also depends on the parameter γ, where $0 \leq \gamma \leq 1$; a low level of γ implies that voters mostly care about the policy q, while a high level of γ implies a strong anti-elite bias in the population. In turn, one can think of (an increase in) γ as a shock to voters' preferences induced by the fact that the traditional political system has shown to be unable to address the consequences of some deep crisis hitting society (say, globalization, increased immigration, or an economic crisis).[16] Because γ indexes the lack of trust of voters on the traditional political system, to simplify language we will sometimes refer to it just as a general index of "unsatisfied voters". Finally, $B > 0$ is some parameter whose only role is to guarantee interior solutions in the analytical developments to follow (see below).

Concerning their ideological position, we assume that there are only two types of voters, "left" oriented voters, with $q^i = -1/2$ and "right" oriented voters, with $q^i = 1/2$. We index the former voters with l and the latter with r, so that $i = l, r$. This description of the electorate as sharply divided in two distant and polarized groups on ideological grounds might look overly simplistic, but as we discussed in section 2, it is not very far the mark as a representation of political competition in our testing grounds. We will briefly discuss what would happen with more or asymmetric parties in section 4.

Again for simplicity and in order to exploit symmetry, we also assume that there is (in expected terms) the same (large) number of right and left oriented voters, N. This number is fix, but on the day of the election there is some small shock ϵ that switch a few voters ϵN from the left to the right side of the political spectrum. The distribution of ϵ, $F_\epsilon(\epsilon)$, is symmetric around zero in the interval $[-\overline{\epsilon}; \overline{\epsilon}]$, where $\overline{\epsilon}$ is some small positive number, say

[16] Interestingly, our analytical approach to populism is perfectly in line with the representation of the phenomenon offered by Mudde & Kaltwasser (2017). In their view, populist preferences, in the sense of a generalized lack of trust in the ruling political class, are quite widespread in the electorate, even in normal times. However, one typically requires some big shock (a crisis, a scandal) to transform these vague and hostile preferences in a political demand for populist representation. If this demand finds an answer depends on political supply; that is, on the appearance of populist leaders able to intercept and represent it.

$\overline{\epsilon} \leq 1/20$[17], and $E(\epsilon) = 0$. The only role of ϵ is to introduce some ex ante uncertainty in the outcomes of the election; ϵ can be thought of as a last minute aggregate electoral shock affecting differently the size of the two types of voters. It might also be thought of as some residual ex ante uncertainty in politicians' mind about the relative size of the two political groups in the society.

Voters decide which political party[18] to support on the basis of the utility they would gain if it were in charge, taking into account both the party's policy platform and the fact whether the party proposing the policy is an established or a new one. However and importantly, we also assume that support for a party does not necessarily translate in a vote for this party. This is because on the day of the election each voter is also subject to an individual participation cost c^i, where $0 \leq c^i \leq 1$. Voters will then only vote if the perceived benefit from voting (the so called "expressive" component of voting) is larger than this cost; they will abstain otherwise. In turn, we assume that the perceived benefit from voting is proportional to the utility that the favored party would guarantee the voter if it were to be elected, and set the parameter B so as to make the comparison between the realization of the cost and the utility of the voter meaningful. Specifically, given the assumed interval for the realization of c^i, in what follows we just normalize B at 1, as this choice also allows us to simplify computations and sharpen results.

The distinction between supporting a party and voting for it is crucial in our context, because it allows us to study the impact of entry by the populist on electoral turnout, an important component of political dynamics. Notice however that our simple formulation of the voters' participation decision is quite plausible. It just implies for the same realization of c^i, a voter that strongly likes a candidate is more likely to reach the ballot box than another voter who only mildly supports the same candidate, a reasonable implication. To sum up, in our model, voters then just vote sincerely for the party/candidate they like the most, but more motivated voters are also more likely to vote. [19] Finally, for analytical simplicity, we assume that c^i is also distributed with a uniform distribution. α^i, c^i and ϵ are all i.d.d. random variables.

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[17] Indeed, analyses of electoral flows in Italy typically shows that there is very little shift from one side to the opposite side of the political spectrum, usually less than 3%. Most of the dynamics of voting is due to voters abstaining to signal their disaffection towards the politicians of their side, rather than switching to the opposite side. See Dalimonte, Itanes, 2018.

[18] Or candidate; we do not distinguish here between the two and use the words as synonymous.

[19] As is well known, with atomistic voters it is difficult to explain why people bother to vote in elections with even small number of participants (i.e. Merlo 2007). The expressive component of voting seems to play a crucial role in real world elections, which also implies sincere voting for most citizens.

3.2 Parties

There are two established or mainstream parties, R and L, with policy preferences coinciding with those of the two groups of voters that they represent. For the time being, we will assume that these two parties cannot change their policy positions; because of history and tradition, a new policy position proposed by a traditional party would not be believed by voters. We will discuss the effect of giving a more active role to the two mainstream parties in section 4. Thus, if we let q^P be the policy proposed by party P, $P = R, L$, $q^R = 1/2$ and $q^L = -1/2$. If one of the two traditional parties wins the elections, it also earns political rents equal to $V > 0$. For future reference, let us then write the expected utility of the two traditional parties as $U^P = E(V - \sigma(q^P - q)^2)$ where expectations are taken with respect to the probability of winning the elections and $\sigma \geq 0$ is a parameter weighting the politician's policy preferences with respect to rents.

There is also a potential entrant, a not established party, M. This party, being new, has not pre-determined policy positions or policy preferences and can freely decide where to position itself on the policy line. It also gains V if it wins the elections, but differently from the established parties (that have paid it already), if M wants to participate at the electoral competition it needs to pay some organizational cost. Let this cost be fix and equal to $K > 0$. We assume $V > K$, so that M would enter the competition only if the probability of winning the elections is large enough. The expected utility for party M is then $U^M = E(V) - K$ if it enters the competition, and zero otherwise.

3.3 Electoral systems

We compare two different electoral systems, a single ballot mechanism (SB) and a dual ballot (DB) mechanism (or runoff). According to the first system, a candidate (party) obtaining the highest number of votes is directly elected to guide the executive; according to the second, there are two rounds of election, and if no candidate (party) obtains at least 50%+1 of votes at the first round, the two candidates who gained more votes at the first round run again at a second ballot. We focus on these two electoral systems because as explained in section 2, the Italian municipalities composing our data set vote for the mayor and the municipality legislative body (the Council) according to one of these two mechanisms, depending on a threshold of population. Notice however that as the electoral system at the national level in Italy is also single ballot and for a long period led directly to the election of the head of the executive, the analysis of this section can be thought of as applying to this context too.

3.4 Sequence of events

We postulate the following sequence of events.

1. At the first stage, parties decide if running and on which political platform. Specifically, mainstream parties always run (as they have already paid the organizational cost) and by assumption they run on predetermined policy positions, so they have in fact no decision to make (see section 4 for extensions). Party M must instead decide if entering the political arena and paying the fix cost K, or not entering and paying 0. Moreover, conditional on the entry decision, he must also decide which policy platform to propose. Notice that when taking these decisions, parties know the distribution of a^i, c^i among voters and the distribution of ϵ, but not their realization.

2. At the second stage, each voter i observes the policy proposals of the different political parties and she also observes her a^i. On this basis, she decides which party she would potentially support at the elections.

3. At the election day, each voter observes the realization of her participation cost, c^i. On the basis of the utility offered by the most favored party, she then decides whether to vote for this party or to abstain.

4. Citizens who decide to turn out at the ballot box, vote for the different parties. At this point, ϵ is also realized. If the electoral system is single ballot, the party (candidate) that gain more votes wins and implements the proposed policy. If the electoral system is dual ballot, the two most voted parties run again at the second ballot to determine the winner. Who wins, again implements the proposed policy.

Of interest here, as predictions to guide our empirical analysis, are:

1) the conditions under which party M decides to run and the policy platform it chooses under the two electoral systems;

2) the turnout of voters in all possible cases, under single and double ballot. The model is solved by backwards induction.

3.5 Single ballot

Consider first the case where M decides not to run, so that only the two traditional parties are competing at the election. Consider a right oriented voter. In deciding which party she prefers between R and L, she compares her utility under the two opposing policy platforms:

(2) $U^r(q^R) = 1 - \alpha^i\gamma$; $U^r(q^L) = -\alpha^i\gamma$;

Inspections of (2) immediately reveals that the right oriented voter will always prefer party R to L for any possible realization of α^i. The reason is simple; as both mainstream parties are established parties ($E = 1$) the trust component has the same effect on the utility

of voters for any realization of α^i, while on the policy dimension right oriented voters clearly prefer the right party. By symmetry, the same is true for the left oriented voters that would always prefer L to R.

At the time of the elections, however, voter i is also subject to a participation cost equal to c^i; on the basis of our assumptions, she will then vote only if the utility promised by the favored party is larger than the realization of this cost, that is if

(3) $1 \geq c^i + \alpha^i \gamma \equiv z^i(\gamma)$

she will abstain otherwise. Notice however that for all right oriented voters such that $\alpha^i \leq 0$ (1/3 of the N right oriented voters) the utility offered by party R is larger than 1, the maximal possible realization of the cost c^i. This means that all these voters will turn out at the elections and vote for R. In other words, right oriented voters with $\alpha^i \leq 0$ can be thought of as the loyal and strong supporters of party R. On the other hand, right oriented voters with $\alpha^i > 0$ (2/3 of the N right oriented voters) are only mild supporters of party R and will vote for it only if their joint realization of α^i and c^i is such that the inequality in (3) is satisfied, that is, if the realization of the random variable $z^i(\gamma)$ is smaller than 1. Computing the cumulative distribution function for $z^i(\gamma)$, $F_{z(\gamma)}$ (see Appendix 1), we can calculate the ex ante probability that these voters will actually vote, $F_{z(\gamma)}(z^i(\gamma) \leq 1) = 1 - \frac{\gamma}{2}$. In turn, as N is a large number, this ex-ante probability will equal ex post participation by this group of voters. Summing over the two groups of right oriented voters and repeating the argument for left oriented voters, the expected votes for each traditional party when running against another traditional party are then equal to $N(1 - \frac{\gamma}{3})$. Ex post, however, the aggregate shock ϵ will shift some voters from the two parties, so that $N(1+\epsilon)(1-\frac{\gamma}{3})$ will vote for R and $N(1-\epsilon)(1-\frac{\gamma}{3})$ will vote for party L. By symmetry of $F(\epsilon)$ around zero, and as $E(\epsilon) = 0$, each of the two traditional parties, when running against another traditional party, then wins with probability 1/2. Once elected, the party then implements its promised platform. Notice also, that as the shock ϵ is perfectly symmetric, the global effect of ϵ on total turnout cancels out and the total participation rate will be $2N(1 - \frac{\gamma}{3})/2N = (1 - \frac{\gamma}{3})$. Given our assumptions on parameters, electoral turnout then ranges between 100% and 66,6% and is decreasing in γ; the stronger the distrust of voters for the established political system, the lower the participation rate at the elections when only the two mainstream parties run. Summing up:

Proposition 1 *Suppose that only the two mainstream parties participate at the elections under the single ballot mechanism. Then each party wins with probability 1/2, with equal probability policy is either* $q = 1/2$ *or* $q = -1/2$, *and the electoral turnout rate is equal to* $(1 - \gamma\frac{1}{3})$.

Suppose now instead that the populist party has decided to participate at the elections. The question is on which political platform it will then run. Consider again the right oriented voter. For the reasons discussed above, this voter will never support the traditional L party; thus, the only relevant utility comparison to be made by this voter is between the utility offered by R and by M. Specifically, the right oriented voter will support M rather than R if:

(4) $U^r(q^M) = 1 - (1/2 - q^M)^2 \geq 1 - \alpha^i\gamma = U^r(q^R)$

That is, the right oriented voter will support the M party if $\alpha^i \geq \frac{(1/2-q^M)^2}{\gamma} \equiv \alpha^* \geq 0$ and the R party otherwise. [20] Notice that if $\alpha^* \geq \overline{\alpha} = 1$, all right oriented voters will support party R. If instead $\alpha^* < 1$, $N\frac{\overline{\alpha}-\alpha^*}{\overline{\alpha}-\underline{\alpha}} = N2(1-\alpha^*)/3$ right oriented voters will support M and $N\frac{\alpha^*-\underline{\alpha}}{\overline{\alpha}-\underline{\alpha}} = N2(\alpha^* + \frac{1}{2})/3$ will support the R party. However, expected and actual votes for the two parties also depend on the realization of the individual participation cost on the day of the elections. Consider then first the right oriented voters who support the R party. For the reasons discussed above, all the faithful R voters, that is all voters with $\alpha^i \leq 0$, will turn out at the elections and vote for R. On the other hand, weak R supporters, that is right oriented voters with $0 \leq \alpha^i \leq \alpha^*$, will turn out at the elections only if

(5) $1 \geq \alpha^i\gamma + c^i \equiv \widehat{z^i}(\gamma)$

where $\gamma\alpha^i$ in (5) is distributed (uniformly) in the interval $[0; \gamma\alpha^*]$. Computing the cumulative distribution function for the random variable $\widehat{z^i}(\gamma)$, $F_{\widehat{z}(\gamma)}$ (see Appendix 1), $F_{\widehat{z}(\gamma)}(z^i(y) \leq 1) = (\frac{2-\alpha^*\gamma}{2})$. Hence, the expected votes for the R party from this second group of right oriented voters are $N\alpha^*(2 - \gamma\alpha^*))/3$. Summing over the two groups of R supporters, the expected votes for the R party when M enters and runs on the platform q^M, let us call it $EV^R(q^M)$, are given by:

(6) $EV^R(q^M) = N(1 + \alpha^*(2 - \gamma\alpha^*))/3$

Next, consider the right oriented voters that support party M, a not empty set if $\alpha^* < 1$. As these voters, if they vote, always vote for M, their expressive benefit from voting, $(1 - \gamma\alpha^*)$, is the same regardless of their realization of $\alpha^i \geq \alpha^*$. Exploiting the properties of the distribution function for c^i, this means that the ex ante probability that they turn out and vote is just $(1 - \gamma\alpha^*)$. It follows that if party M enters and runs on the platform q^M its expected votes from the right oriented voters, let us call it $EV_R^M(q^M)$, will be given by:

(7) $EV_R^M(q^M) = N2((1-\alpha^*)(1 - \gamma\alpha^*))/3$

if $\alpha^* < 1$ and 0 otherwise. Inspection of (7) clearly reveals that by choosing q^M properly, M can influence the number of right oriented voters who vote for him. In particular, by

[20] This holds if $\gamma > 0$. If $\gamma = 0$, right oriented voters will never support the populist party, unless it offers $q^M = 1/2$, in which case voters are indifferent between voting for M and R, In this case we might just assume that half of the right oriented voters vote for M and the remaining half for R.

letting q^M get closer to 1/2 (that is, by reducing α^*) M can increase the potential number of votes that he can get from the right oriented voters. For instance, for $\alpha^* = 0$, 2/3 of the right oriented voters, that is all voters with $\alpha^i > 0$, vote for M. However, choosing a platform closer to the bliss point of the right oriented voters means losing potential votes from the left side. In fact, by invoking symmetry, the (expected) number of left oriented voters willing to vote for the M party is given by $EV_L^M(q^M) = N2((1-\gamma\alpha^\circ)(1-\alpha^\circ))/3$ where $\alpha^o = (1/2+q^M)^2/\gamma$. At $\alpha^* = 0$, $\alpha^\circ = 1$, and no left oriented voter will ever vote for M. This suggests that in order to maximize his votes from both types of voters, the populist might decide to run on an agenda intermediate from the two bliss points of voters, and in particular, by symmetry, on $q^M = 0$. However, the availability of this strategy for party M depends on γ, as proved in the following Lemma.

Lemma 1 *Consider the expected total number of votes for party M, $EV^M(q^M) = EV_R^M(q^M) + EV_L^M(q^M)$. Then: (i) for $\gamma < \frac{1}{4}$, there exists no q^M such that the populist party can get votes from both left and right oriented voters; (ii) the "centrist" platform $q^M = 0$ is respectively: for $\frac{1}{4} \leq \gamma < \frac{1}{2}$, a global minimum; for $\gamma = \frac{1}{2}$, an inflection point; and for $\frac{1}{2} < \gamma \leq 1$,a global maximum, of the function $EV^M(q^M)$.*

Proof. *See Appendix 1.* ■

Lemma 1 implies that at least for $\gamma \leq \frac{1}{2}$, the only available strategy for the populist party, if he decides to enter the electoral arena, is to run on either $q^M = 1/2$ or $q^M = -1/2$, that is, to choose the political position of one of the two traditional parties. In fact, any choice of q^M outside the interval $(-1/2, 1/2)$ would be self-defeating for party M and by Lemma 1, any choice inside the same interval would bring the populist less expected voters than choosing the platform of one of the two traditional parties. The question however is whether for such low levels of γ the populist party would find it worthwhile to pay the organizational cost K and enter the electoral competition. From (7), by playing this strategy, the M party would get $\frac{2}{3}N$ votes of the traditional party whose platform it imitates, say party R, thus beating it for sure. However, by proposition 1, party L would then get $N(1-\gamma\frac{1}{3})$ votes; and $N(1-\gamma\frac{1}{3}) > \frac{2}{3}N$ for any γ except at $\gamma = 1$, where both parties would get the same number of (expected) votes. Adding the shock ϵ, this means that by playing this strategy party M will win with a probability smaller than 1/2 (possibly zero) for all γ, except at $\gamma = 1$, where he wins with probability $\frac{1}{2}$. However on the one hand, even this probability might not be enough to justify the cost of entry (if $\frac{K}{V} > \frac{1}{2}$). And on the other hand, for large γ even the strategy of playing $q^M = 0$ becomes available to the populist and the latter might dominate the former; for example, as shown in the next proposition, if $\gamma = 1$, the populist

wins for sure if it runs on the platform $q^M = 0$. The next proposition proves that under our assumption on $\bar{\epsilon}$ this is indeed the case for any γ.

Proposition 2 *(i) There exists a value of* γ, $\frac{19}{32} < \gamma^* < 1$ *such that for* $\gamma \geq \gamma^*$, M *enters in the political competition running on the platform* $q^M = 0$. *(ii) for any* γ *such that* M *would be willing to enter and runs on the platform of one of the traditional parties, his probability of victory if he runs on the centrist platform* $q^M = 0$ *is larger.*

Proof. See Appendix 1 ■

Point (ii) in proposition 2 implies that the strategy of running on the platform of a traditional party for party M is dominated; for γ large enough to make this strategy worthwhile, the populist party would be better off by running on the centrist platform $q^M = 0$. Hence, if party M enters in the political arena it does so on the platform $q^M = 0$; and by point (i), party M does enter only if the size of the unsatisfied voters, indexed by γ, is large enough. Intuitively, these unsatisfied voters are the potential voters of the populist party and for the populist to be willing to pay the entry cost there must be a sufficient number of them to give him a chance to win the elections. Indeed, we now prove:

Lemma 2 *Upon* $M's$ *entry, electoral turnout always increases.*

Proof. See Appendix 1. ■

Intuitively, entry by the populist party not only allows some voters to switch from one of the traditional party to the new one, but also induce voters strongly unsatisfied with the traditional political system, and that therefore on average abstained when only the two mainstream parties competed, to return to the ballot box. It is useful to illustrate this effect by using our results above. Assume $\gamma = 1$. In this case, without the populist party in the political arena, Proposition 1 implies that $2/3$ of voters would vote for the closer traditional party and $1/3$ would abstain. When M enters, only about 30% of the $2/3$ of voters who voted for the traditional parties would switch to the new party ($0.28\% \approx 1-(1+7/16)/2$). The rest of the support for M would come from the $1/3$ of previously abstained voters who would now for more than 50% turn out at the elections and vote for M ($0.55\% \approx 3(3/8 - 0.28\% * 2/3)$). Let us sum up the result of this section in the following proposition:

Proposition 3 *Under a single ballot mechanism, if the size of unsatisfied voters is large enough* ($\gamma \geq \gamma^*$), *the populist party will enter the political arena, running on a centrist platform* ($q^M = 0$). *Depending on who is the winner, policy will then be either one of the platforms desired by the traditional parties or the centrist policy. Turnout at the elections will increase following the entry of the populist party as a share of previously abstained voters will now turn out and vote for the populist.*

3.6 Dual ballot

How do these results change when we consider the dual ballot system? To address this question and ease the comparison, let us assume that nothing else expect the electoral rule changes with respect to the previous section. Specifically, let us assume that the realization of α^i and ϵ all occur at the first round and that their values just remain unchanged when moving to the second ballot. We also assume that political platforms cannot be changed between rounds; at the second round, the surviving candidates will run again on the same platform they had chosen at the first round.[21]

Under these conditions, it is clear that as long as the candidates that reach the second round belong to the the traditional parties, results cannot change with respect to the first round. In particular, if the populist party did not run at the first ballot, than no voter when it reaches the second ballot has an incentive to revise its turnout and voting decision (turnout on the day of the elections will be still determined by the realization of the cost c^i). Left oriented voters who voted for the left party at first round will just confirm their vote at the second round and so will do the right oriented voters. As participation is the same and the shock ϵ is permanent, whoever won at the first round will also win at the second round and be elected. The electoral system therefore does not make any difference in terms of result; the winner would be the same under both electoral systems.[22]

Notice that the same would happen even if the populist party did run at the first round, but was defeated, finishing at the third place in the electoral competition. [23] In this case, some voters will change their voting behavior at the second round. Specifically, some of the right oriented voters who had voted for M at the first round, since the populist party is not running anymore, will revise their choice and vote for the R party at the second round or abstain. And so will also do some of the left oriented voters who had voted for the

[21] This makes very much sense in our testing field, Italian municipal elections, as the policy proposal is linked to the figure of the candidate for mayor and policy platforms are legally presented before the first round and cannot be changed between ballots.

[22] To make the outcome less mechanic, one could assume as in Bordignon et al. (2017) that the total shock ϵ is divided in two independent shocks, $\frac{\epsilon}{2}$ at the first round and another shock $\frac{\epsilon}{2}$ at the second, both distributed in the interval $\left[-\frac{\bar{\epsilon}}{2}; \frac{\bar{\epsilon}}{2}\right]$. If the first shock is permanent, the first round winner would have an advantage at the final round, still allowing the second to win at the final round with some positive probability. However, as this would not change our conclusions here, and in particular would not change much the incentive for the populist party to enter the competition, we forfeit this complication here.

[23] Strictly speaking, this is the only possible case in order to have a second round, given the assumptions of the model. With only two candidates running at the first round, and given the symmetry of the game, one of the candidates necessarily gets more than 50% of votes at the first ballot. He is then elected directly, without the need of setting up a second ballot. To avoid this result, one could add, still preserving symmetry, some small parties and relative supporting group of voters to the model. These parties would never win, but even if the populist does not run, might impede to one of the traditional party to reach 50% of votes at the first ballot. See section 4.

populist at the first round, voting for the L party at the second round or abstaining. But the important point to notice is that given the symmetry of the game, and regardless of the platform at which the populist run at the first round, these "repented" traditional voters by changing their electoral behavior will lead to an equilibrium where each traditional party gets $N(1+\epsilon)(1-\frac{\gamma}{3})$ votes at the second round. Thus, if the shock ϵ is permanent, whoever of the two traditional parties got $\epsilon > 0$ at the first round, will win at the second round and be elected. Again, the electoral system does not make any difference in terms of the final outcome.

When the electoral system can make a difference, it is in the case when the populist and a mainstream party candidate reach the second round. To see this, suppose first that populist party had run on the centrist platform $q^M = 0$ on the first round and the R party was defeated at the first round, so that at the second round voters can only vote for either the L party or the populist party M. Let us also suppose that L was the most voted party at the first round, so that it leads the competition on M at the second round. In terms of our model, this would happen because party L was hit by a positive shock ϵ at the first round. Again, let us assume that this shock is permanent, so that L keeps benefiting from this positive shock even at the second round.

Now consider the incentives of different type of voters at the second ballot. Clearly, whoever voted for M or for L at the first round has no incentive to change her voting behavior at the second round; given our hypothesis of permanence of all shocks, each one of these voters will just confirm her vote at the second ballot. Consider then the right oriented voters who had preferred R at the first ballot (and in some proportion voted for it). According to the analysis of the previous section, when the populist runs on the centrist platform $q^M = 0$, these are the voters for whom $\gamma\alpha^i \leq \gamma\alpha^* = \frac{1}{4}$ and their size is $2(\alpha^* + \frac{1}{2})/3$ of the $N(1-\epsilon)$ realized ex post right voters. At the second ballot, these voters face only the option to either choose M or L. Their utility under the two options is given by:

(8) $U^r(q^M) = 1 - \frac{1}{4}$; $U^r(q^L) = -\alpha^i\gamma$;

Given our assumptions on the distribution of α^i, it is clear that all these right oriented voters will prefer M to L, including those faifthful right oriented voters for whom $\alpha^i < 0$ (as $-\frac{1}{2} \leq \alpha^i$) and that therefore, regardless of the policy itself, appreciate the fact this policy is implemented by a mainstream party. Since the expected benefits of these voters when they vote for M does not depend on the realization of α^i and given the assumed properties for the distribution for c^i, in expected terms $(1 - \frac{1}{4}) = 3/4$ of these potential voters will then turn out at the second ballot and vote for M . The conclusion is that while confirming all its first round votes, the M party will also gain a large share of votes of the $N(1-\epsilon)$ right oriented voters at the second round ($\frac{1+2\gamma}{8\gamma}N(1-\epsilon)$ to be precise), thus making it likely that

M will win at the final ballot as these extra votes might easily overcome the first round advantage of the L party. In this case, the electoral system does make a difference. If the electoral system were SB the L candidate would win the elections with certainty, while with the DB, keeping everything else constant, the M candidate is likely to prevail.

Notice that this would happen, in sharp contrast with the single ballot, even if M had run on the platform of one of the established party, say R, at the first round. By the analysis of the previous section, by playing $q^M = \frac{1}{2}$ at first round, party M would get $\frac{2}{3}$ of the right oriented voters at first round, thus beating party R and reaching the second round for sure. At this round, however, while these $\frac{2}{3}$ right oriented voters would confirm their votes for M, the remaining $\frac{1}{3}$ of voters that at the first round had preferred party R, since this party is no longer around, will vote for M rather than L (note that $U^r(q^M)$ in this case is just 1). Hence, by playing this strategy the M party will secure 100% of the right oriented voters at the second round, thus winning with a probability weakly larger than 1/2. Summing up, our model then suggests that the populist candidate will be a much more likely winner if it manages to reach the second round than a candidate from one of the two mainstream parties.

This observation leads to two other testable implications of the model. First, as the M party is a much more likely winner under the DB electoral system, we should expect it to enter more often in contexts that adopt this system than in others that adopt a SB mechanism, that is, we would expect M to enter the electoral arena for a larger interval of values of γ. This is obviously the case when the populist plays $q^M = \frac{1}{2}$ (or $q^M = -\frac{1}{2}$) in the first round, because this implies a victory for the populist even for relatively low values of γ[24]. However, this is true even if the populist plays the centrist strategy $q^M = 0$ in the first round, as proved by the next proposition:

Lemma 3 *(i)There exists a value of* γ, $\widehat{\gamma} > 0.523$ *such that for* $\gamma \geq \widehat{\gamma}$ *the populist party enters the electoral arena on* $q^M = 0$ *when the electoral system is a dual ballot mechanism. (ii)* $\gamma^* > \widehat{\gamma}$ *where* γ^* *is the threshold at which the populist party enters on the same platform under the single ballot mechanism.*

Proof. See Appendix 1. ■

This is important, because there might be reasons that might forbid the populist to enter on the platform of the traditional parties even if it might be convenient for it to do

[24] For γ close to zero, a populist playing $q^M = \frac{1}{2}$ (or $q^M = -\frac{1}{2}$) in the first round, would win a the second ballot with a probability close to 1/2, which might not be enough to enter the political arena if $K/V > \frac{1}{2}$. However, as the other traditional party would net $N(1 - \frac{\gamma}{3})$ of the votes, the probability of winning for the populist will increase sharply with γ. Given our assumption on $\overline{\epsilon}$, M will win for sure when $\gamma > 0,29$.

so.[25] The intuition behind Lemma 3 is quite simple. Under the single ballot mechanism, the populist party will enter the political arena at $q^M = 0$ only if the level of lack of trust in the traditional parties in the electorate, as indexed by γ, is such that the populist has some positive probability to beat *both* traditional parties - that is, in the contest of our model, to beat even the traditional party hit by a *positive* shock at the elections. Under the dual ballot mechanism, the populist party will enter at $q^M = 0$ only if the level of lack of trust in the traditional parties in the electorate, as indexed by γ, is such that the populist has some positive probability to beat at least the *loser* of the two traditional parties at the first round -that is, in the contest of our model, to beat the traditional party hit by a *negative* shock at the first round. As we assume the shock to be the same under both systems, the latter condition is less requiring than the former, inducing the populist to enter more often at $q^M = 0$ under the dual ballot mechanism.

The second observation concerns participation at the final ballot. Comparing electoral turnout at the *second round*, we should in general expect a higher turnout when one of two candidates at this round is the populist than when both candidates are from traditional parties. This is because at the second round the populist party is able to attract voters from the mainstream party that did not make at the second round, while the other mainstream party at the second ballot can only confirm its first round votes. Again, this is obvious if the populist runs on the platform of one of mainstream parties[26], but it is true even if it runs on the centrist platform $q^M = 0$, as shown in the next lemma.

Lemma 4 *Suppose that the populist enters and runs on the platform $q^M = 0$ at the first round. Then, if the populist party reaches the second round, electoral participation at this final round is larger than if the two established parties reach the second round.*

Proof. See Appendix 1 ■

Intuitively, we proved in the previous section that entry by the populist always increases electoral participation at the first round. This remains true at the second round because the populist enters at $q^M = 0$ only if he can recover enough voters from the mainstream party who does not make at the second ballot and this condition guarantees an increased

[25] For example, in the context of municipal elections, the platform of a populist party cannot be very different from the one proposed by the same party at the national level, even taking into account the difference between national and municipal policies. And if the platform at national level is "centrist", the party at municipal level might be forced to run on similar platform. On these grounds, as we noted already, the analysis developed in the previous section could be also applied at the national level in Italy, where as explained in section 2, the electoral mechanism is single ballot and for a long time led directly to the appointment of the prime minister.

[26] As $N((1-\epsilon)+(1+\epsilon)(1-\frac{\gamma}{3}) > N(1-\frac{\gamma}{3})$ for every realization of ϵ.

participation at the final contest. Let us then conclude this section by summarizing our results in the following proposition.

Proposition 4 *The dual ballot mechanism offers the populist party an advantage with respect to mainstream parties. If he reaches the second round, the populist is much more likely to win because he can attract some of the voters of the mainstream party who did not make at the second round, while a mainstream candidate can only confirm his first round votes. This also implies that 1) ceteris paribus, populists are more likely to run in localities that adopts a dual ballot electoral system; 2) turnout at the second round is larger when one of the two contenders is a populist.*

3.7 Extensions and discussion of the assumptions

The model discussed in the previous sections is clearly very stylized, as its task is mostly to provide clear-cut predictions to guide the empirical analysis; in this section we briefly discuss some extensions of the model and the robustness of its general conclusions.

The main limitation of the analysis so far is that we did not allow the mainstream parties to react in any way to the threat of the populist party. Specifically, we did not allow the traditional parties to change their political platforms as a reaction to the entry of the populists or as an attempt to block it. However, as shown in the next proposition, this assumption is not a limitation in the context of our model:

Proposition 5 *Suppose that the mainstream parties can now freely choose their platforms and that the populist party decides to enter at the centrist platform $q^M = 0$; in a Nash equilibrium the best reply of each traditional party is still to stick to its preferred platform, q^P for $p = R, L$.*

Proof. See Appendix 1 ■

Given our assumption of a perfectly polarized electorate, Proposition 5 is entirely obvious. But it clearly illustrates the fundamental idea at the basis of our model. The populist party in our setting it is not simply a centrist party who could be blocked by changing the policy position of traditional parties; rather, it is a party that builds on the dissatisfaction of voters versus the mainstream political elite to enter the political arena, and that in a polarized political world chooses a centrist position to maximize the potential number of votes from both sides of the political spectrum. Hence, simply changing the political offers on the traditional policy line would do little to stop the populist.[27]

[27] The proposition discusses the case where the populist enters at the centrist platform as this is the only

This however does not mean that traditional parties could not do anything to intercept the dissatisfaction of voters. Indeed, if the preferences of voters become strongly anti-establishment (γ becomes large), one would expect mainstream parties to make an effort to become less "elitarian" in the eyes of the voters, particularly if under the threat of a populist party capitalizing on the dissatisfaction of voters. For instance, mainstream parties could try to react by renewing their leadership and/or by proposing new candidates for national and local elections, less compromised with the old party leadership. But notice that these strategies are however likely to be costly for the mainstream party: a change in leadership will probably increase the conflict inside the party and proposing new candidates is likely to disappoint old militants queueing for their turn to run at the elections.

In the context of our model, we can capture these possible alternative strategies by assuming that a mainstream party can now change voters' perception of being "established" by investing in some costly effort x^P. Specifically, let us assume that in equation (1) voters can now distinguish the level of "establishment" of the two mainstream parties, writing this as E^P for party $P, P = R, L$, rather than just $E = 1$ for both parties. Let us further assume that $E^P = 1 - x^P$, with $0 \leq x^P \leq 1$, and that investing in x^P implies a cost for party P given by the function $c^P = c(x^P)$, with $c(0) = 0$, and $c' > 0, c'' \geq 0$. The sequence of events remains unchanged with respect to the previous section, except that now at step 1, after the entry decision by party M, parties R and L simultaneously and not cooperatively can also decide whether and how much to invest in x^P.

Appendix 2 discusses this extension of the model. Results show that even in the absence of a populist party, parties R and L would have an incentive to invest in x^P in order to regain some of their own voters that would otherwise prefer to abstain. Specifically (assuming an internal solution) the equilibrium level of x^{P*} (equal for the two parties by the symmetry of the game) turns out to be increasing in γ, increasing in the expected gains from winning the election ($V + \sigma$) and decreasing in the marginal cost of the effort. However, this incentive to invest in x^P becomes larger when the populist enters the political game, because now by reducing E^P the traditional party can also recover some of its voters who would otherwise support M. In equilibrium, this effort might even be such to prevent entry by the populist party (if this is able to correctly predict the reaction of the traditional parties), but depending on the parameters there are also other possible equilibria, where the populist still enters but wins with a lower probability under both electoral systems. Notice however that as x^{P*} is chosen by the two traditional parties in a (symmetric) Nash equilibrium, it is however

possibility in the single ballot case. But note that the result is a fortiori true even if at the first round of a runoff the populist decided to enter at the platform of one of the two mainstream candidates. None of the latter two could earn anything in terms of vote by changing their political platforms.

suboptimal, because each mainstream party does not take into account the benefit that it provides to the other mainstream party by investing in x^P (reducing the votes for M); specifically, for $V > \frac{\sigma}{2}$, x^{P*} falls short of the level that would maximize the sum of the expected utilities of the two traditional parties.

In terms of the predictions of the model, the above then suggests the following:

Conjecture 1 *A mainstream party would make a larger effort to appear less "established" when competing against a populist than when competing with another mainstream party. For example, by proposing candidates for elections less compromised with the old party leadership.*

As the candidates of the populist party are typically new people, not compromised with traditional politics, a consequence of conjecture 1, if verified, is that the decision of the populist to enter the competition should lead to a renewal of the (local) political class. We will discuss below how we attempt to address this conjecture in our empirical analysis.

Next, in order to exploit symmetry we have assumed so far that the two mainstream parties are perceived by voters as being part of the establishment in exactly the same way, so that $E^P = 1$ for both $P = R, L$ in eq.(1). However, if at the heart of the lack of trust of voters lies a general dissatisfaction on how the traditional political establishment has run policies in the context of some specific crises, one would expect these anti-establishment preferences to be particularly strong against the incumbent mainstream party, that is, the one which is in charge at the time of the elections. For instance, if the incumbent politician belongs to party R, one would expect some asymmetry in the perception of voters with, say, $E^R \geq E^L$ in eq. (1). Keeping anything else unchanged, how would this asymmetry change the incentives for the M party in terms of conditions for entry and chosen policy platform in the two electoral systems?

Appendix 2 works out this extension. Intuitively, if $E^L < E^R$, symmetry is lost, and the populist, if it enters under the SB mechanism, it now runs on a platform $q^M > 0$, that is, closer to the bliss point of the right oriented voters. The reason is that by moving away from $q^M = 0$ the populist now earns more votes from the right side than it loses from the left and this distorts his optimal platform towards $q^r = 1/2$. Note that in equilibrium this also implies that (in expected terms) the populist now beats more easily the R party than the opposition party L. This suggests another potentially testable implication of the model. If it is actually true that the anti-establishment feelings are stronger against the party in charge, in a SB mechanism we should expect the populist to run on a platform closer to the ruling party's optimal policy and win more often against the incumbent politician than against an opposing candidate from another mainstream party. Notice however that a second implication of the case $1 = E^R > E^L > 0$ is that the populist will generally win less often

and therefore enters less often in the political arena (i.e. he would need a higher level of γ in order to run) than in the symmetric case with $E^R = E^L = 1$. Intuitively, if there is already a relative strong opposition to the ruling party (as the mainstream party L is however perceived by voters to be less a part of the establishment), it is more difficult for the populist to enter and win the elections. Finally, depending on how large is E^L, incentives for the M parties under the DB might also differ. If E^L is relatively close to 1, we can still apply the previous analysis to argue that the populist could win even selecting the platform of either traditional party. But if E^L becomes very small, the populist might not enter at all, or being forced to select a platform close or at the bliss point of R.

Even considering all these extensions, our model remains rather specific. One could easily weaken some assumptions. For instance, it is easy to see that nothing would change if one added (maintaining symmetry) some small groups of voters and relative parties at the center and/or at the extremes of the policy line, so that the number of parties in our model is not essential for the results. Assumptions on the distribution of the shocks are also just for simplicity and qualitatively the results should hold even with more general distribution functions. The assumption of the existence of a group of loyal voters to the mainstream parties seems reasonable, although some results might change if we allowed this size to change. For instance, if this size is close to one half (rather than one third, as we assumed) then even in the DB the populist could possibly enter, if at all, only by adopting a centrist platform. But for this strategy to work we need to assume the existence of a strongly polarized electorate with a general lack of trust on the mainstream political system. This is what ultimately leads all the results of the model.

3.8 Summary of the predictions

Before embarking in the empirical analysis it is worth pausing and summarizing the insights deriving from the theoretical model. In spite of its simplicity, the model offers quite a rich menu of predictions that can be potentially taken to data:

1) For the populist party to enter the political arena, paying the unavoidable organizational cost, there has to be a large number of voters unsatisfied with the traditional political system. Ceteris paribus, we should then observe the *populist to run more often at local elections in municipalities where voters are less satisfied with the traditional political offer.*

2)If he participates at local elections in a SB, *the populist runs on a centrist agenda*, intermediate from the left and right platform. Under the DB, even more extreme strategies become possible, although the centrist platform still remain a possibility for a sufficient high share of unsatisfied voters.

3) If he reaches *the second round of the DB, the populist wins much more easily* than a mainstream candidate. The reason is that the populist is able to attract the voters of the mainstream party that did not make at the second round, while a mainstream party can only confirm his first round votes.

4) Because the populist is a much more likely winner under the DB, *ceteris paribus the populist runs more often under the DB than under the SB.*

5) *When the populist runs, electoral participation increases.* This is because the populist is able to bring back to the ballot box unsatisfied voters that would otherwise abstain. At the *second round* of the SB, there is the additional effect that the populist is also voted by the voters of the traditional party that did not make at the second round.

5) If there is more unsatisfaction among voters towards the incumbent politician than the opposition, *the populist wins more easily when competing against the incumbent politician.*

6) We conjecture that *when competing with the populist* at local elections, a *mainstream party* would attempt to be perceived as less established in the eyes of voters, for instance *presenting less expert candidates at the elections.* Considering that populist candidates themselves typically have no or limited experience with politics, we should then expect a quite sharp renewal of the local political class in municipalities where the populist runs and he is a serious contender.

4 Evidence

In this section we explore the empirical validity of the theoretical predictions outlined in the previous sections, using municipal election data in Italy over the 2010-2019 period.

4.1 Data and Descriptives

In order to test the predictions of our theoretical framework, we gathered a variety of data from several sources.

Italian municipal elections. We assembled a dataset on all Italian municipal elections from the historical archive of the Italian elections of the Ministry of the Interior over the 2010-2019 period. The data include information on the number of eligible voters, voter turnout, valid votes and blank ballots; for each candidate who ran for mayor we know their name, political party, and the number of votes received in each round.[28] Over the period

[28] The Italian Ministry of the Interior only provide historical electoral results on municipal elections held in 16 Italian regions. Electoral results are not available for four autonomous regions, i.e. Friuli Venezia Giulia, Sicilia, Trentino Alto Adige, and Val d'Aosta.

considered, we observe 14,328 elections that occurred in 7,119 Italian municipalities.[29]

If we restrict the sample to municipalities characterized by a runoff system, i.e. municipalities with more than 15,000 inhabitants, we observe 1,339 municipal elections; among them, 64% elected their mayor in the second round. A FSM candidate ran for mayor in 13% of observed elections, 69% if we only consider municipalities with a dual ballot system. Figure 1 shows the share of elections in which a FSM candidate was present by year and municipalities' population; in 2010 only a few municipalities were selected, the share increased up to 80% in municipalities with more than 15,000 inhabitants in 2013 and then remained broadly constant over the years. The number of FSM candidates is relatively low in small municipalities and slightly declining since 2013.

Municipality characteristics. We retrieved for each municipality data on their legal population, social and economic characteristics coming from the Italian Population Censuses in year 2001 and 2011; these characteristics include labor force participation rate, unemployment rate, male to female ratio, share of foreign residents, share of secondary and tertiary educated individuals, and an index of home ownership.[30] The Italian National Institute of Statistics (ISTAT) further provides data on budgetary accounts indicators of the quality of local governments, including municipalities, over the 2010-2017 period. The variables included in the data are performance indicators such as the expenditure capacity, tax collection, expenditure rigidity and tax autonomy degree.[31] Expenditure capacity is the ratio between payments and commitments. Tax collection capacity indicates the share of tax revenues collected. Tax autonomy is the ratio between revenues from taxes and other revenues (including transfers from the central government). Finally, expenditure rigidity is the ratio between commitments (loan payments and employees compensation) and assessed revenues.

Local government officials. We also employ administrative data on all Italian local government officials over the 2010-2019 provided by the Italian Ministry of Interiors. These data include the elected mayor (*Sindaco*), members of the legislature, that is the local council (*Consigliere*), as well as the members of the local executive, (*Giunta; i.e. Vice-Sindaco* and *Assessore*). For each individual in the sample, we have information on their identity, gender, age, highest educational attainment, political affiliation, and previous

[29] As of January 2010, Italy had 8,092 municipalities; about 9% of them had more than 15,000 inhabitants.

[30] The data aggregated at the municipality level come from The Italian National Institute of Statistics (ISTAT) Census8000.

[31] These data are available at the PublicAdministration.Stat website of the The Italian National Institute of Statistics.

job. While the mayor and the members of the local council are elected either in the first or second round, members of the local government are directly appointed by the mayor and, in municipalities with more than 15,000 inhabitants, do not have to be local council members.

Surveys. We finally employed survey data from the European Social Survey (ESS) and IPSOS Polimetro in order to obtain information on individual voters' political preferences and overall assessment of the economic and political situation in Italy.[32]

4.2 Second round and populist's advantage

We start our empirical analysis by showing that a populist party has an advantage in municipal elections characterized by a runoff system. To this end, we exploit discontinuities in the populist party's probability of qualifying for the second round given by its margin of victory in the first round. Specifically, we compare municipal elections in which a populist candidate ranked third in the first round to the ones in which he/she ranked second and thus qualified to the second round. Formally, we define the running variable MV as the margin of victory of the populist party relative to the opponent party that either ranked second or third in the first round. S is a dummy equal to 1 if the populist party qualifies for the second round ($MV \geq 0$) and 0 otherwise ($MV < 0$).[33] We then restrict the sample to elections in the interval $MV \in [-\Delta, +\Delta]$ to estimate the following model:

$$Y_i = \sum_{k=0}^{p} \delta_k MV_i^k + S_i \sum_{k=0}^{p} \beta_k MV_i^k + X_i'\theta + u_i \tag{1}$$

where Y is any electoral outcome in the municipality i, X is a vector of characteristics of the municipality i, and k is the order of the polynomial regression. The bandwidth Δ is a discretionary threshold; in our preferred specification we restrict the sample to elections in which the populist's absolute margin of victory is lower than 0.25 in order to have a sufficient number of elections, i.e. 187. In addition, we perform a series of robustness tests in which we change the order of the polynomial and the bandwidth Δ; following Calonico *et al.* (2014,

[32] IPSOS is one of the largest public opinion polling companies in Italy (http://www.ipsos.it/). The European Social Survey provides data on European citizens' attitudes, beliefs and behavior patterns. It is conducted every two years in European countries. The survey comprises a core module and two or more rotating modules, repeated at intervals. Core topics each year include: political engagement and trust, social and political values, national, ethnic and religious identify.

[33] The margin of victory of the populist party is defined as $MV = \frac{V_{FSM}}{V_{FSM}+V_{OPP}} - .5$, where V_{FSM} is the vote share for the populist candidate, which ranked either second or third in the first round, and V_{OPP} is the vote share for the opponent candidate that ranked either third or second in the first round. Positive values indicate that the populist candidate qualified for the second round.

2019) we further use a nonparametric approach and estimate an optimal bandwidth.

This empirical design allows us to estimate the causal effect of the presence of the populist party in the second round on any electoral outcome Y, i.e. β_0. The main identifying assumption is that, after controlling for the populist's absolute margin of victory in the first round, having a populist candidate running in the second round is a random event uncorrelated with any other unobservable determinants of electoral outcomes.

Throughout we report five sets of RDD estimates. In the first four regressions, the running variable, the absolute margin of victory of the populist candidate, is expressed as a first and second degree spline polynomial, and the sample is restricted to elections where the margin of victory is within .15 and .25. The fifth specification is a local linear regression, estimated as in Calonico *et al.* (2019).[34]

Balancing. We first test for the assumption of continuity of potential outcomes at the threshold, by estimating equation 1 where the dependent variable is, in turn, each one of a large array of pre-treatment municipality characteristics; these variables are: population density, provincial county seat dummy, altitude, share of foreign residents, labor force participation, unemployment rate, share of population with secondary or tertiary education, and an index of home-ownership. Regression results in Table B.1 do not deliver any statistically significant effect of our treatment on this set of variables, thus corroborating the validity of our empirical strategy. Figure B.1 provides a visual representation of these results. Overall, we can infer that the sample is balanced around the margin of victory threshold.[35] We further present the results of a McCrary test on the density of observations (i.e. municipal elections) at the threshold. Figure B.2 shows a small and not statistically significant increase in the number of elections that saw a populist candidate qualifying for the second round (t-statistics=1.28). This result indicate that there is no evidence of manipulative sorting on either side of the threshold.

RDD estimates. Panel A of Table 1 presents regression results in which we only include as controls election year dummies; the dependent variable in the first row is the winning probability of the candidate who ranked second in the first round, i.e. *the runner-up*. The estimated coefficients are positive and statistically significant: a runner-up's probability of winning the election increases of roughly 54 percentage points when this candidate is a

[34] Our preferred specification uses the MSERD bandwidths developed by Calonico *et al.* (2019); The number of clusters varies depending on the selected bandwidth, i.e. from 46 to 64.

[35] The figure shows unconditional first order polynomial regressions at the .25 bandwidth shown in the first column of Table B.1. Each dot corresponds to the average outcome for all municipalities within the corresponding .05 interval.

populist. We further find a positive effect when we analyze the runner-up's vote share in the second round (i.e. second row of Panel A): populist candidates arriving second in the first round increase their vote share in the second round of about 14 percentage points with respect to mainstream party candidates arriving second in the first round. These results are robust to the specification adopted; although the coefficients in column (3), second order polynomial regressions at the .15 bandwidth, are imprecisely estimated.[36] Including covariates in the regressions only marginally affects the estimated coefficients, i.e. Panel B.[37]

Overall, these findings confirm the model's prediction 3: a populist candidate who qualifies for the second round is more likely to win the election with respect to a mainstream candidate; this result plausibly comes from the fact that the populist runner-up is able to attract voters of the mainstream candidate who did not qualify for the second round.

4.3 Turnout in the Second Round

As predicted by our theoretical model and shown in the second row of Table 1, the vote share of the runner-up in the second round increases if the runner-up is a populist. The reason is that the populist, besides keeping his own votes, should also attract the votes of the excluded traditional candidate, while this would not happen if only traditional parties compete in the second round. The model thus further predicts that, when populist candidate run in the second round, we should observe a larger turnout with respect to second round elections in which they do not run.

The third row of Table 1 shows that second-round elections experience a turnout increase of about 9 to 10 percentage points when a populist candidate qualified for the second round. These estimates are always positive and statistically significant in every specification adopted and become slightly larger when control variables are included, i.e. Panel B. As a robustness, in the fourth row of Table 1 we estimate equation 1 where the dependent variable is the turnout in the first round; reassuringly these coefficients are not statistically significant and small in their magnitude. As expected, the turnout in the first round should not be affected by the presence of the populist candidate in the second round.

4.4 Centrist and anti-establishment platforms

Centrist agenda. As suggested by the model, in order to capture the vote of the

[36] The magnitude of estimated coefficients slightly decreases, while the standard errors almost double in size.

[37] Table 1's notes report the full set of controls.

excluded traditional candidate, the populist party should generally run on a more moderate (centrist) platform than either traditional party. As discussed in section 2, while being characterized by anti-establishment features, the FSM always claimed that their political platform is post-ideologic and "beyond" the traditional distinction between left and right policies.[38]

Given the lack of data on political manifestos at the local level this prediction of the model is hard to test empirically. However, we are still able to provide some suggestive evidence regarding voters' perceptions on FSM' political orientation. To this end, we employ the 8th wave of the European Social Survey, which interviewed 2,626 Italian residents in 2017. We focus on two questions; the first one asks *"In politics people sometimes talk of "left" and "right". ..., where would you place yourself on this scale, where 0 means the left and 10 means the right?"*; the second question asks *"Is there a particular political party you feel closer to than all the other parties?"*. Figure 3 plots the distribution of respondents' left-right placement depending on political party preferences. In general, those that indicate "FSM" as the most close party place themselves at the center of the left/right scale. This is not the case when we look at League's voters (i.e. *Lega*), who are largely concentrated at the extreme right of the scale.

Right-wing populism. The Italian political scenario offers an ideal falsification test to corroborate our previous claims: we look at the electoral effects of having a League candidate in the second round. As the FSM, the League's political propaganda has been characterized by populist and anti-establishment features; however, the League has adopted more conservative and extreme right-wing positions than the FSM on several policy issues, including immigration and European integration. We thus expect to find no political advantage for League's candidates running in the second round.

In practice, we apply the same regression discontinuity design as in Table 1 to elections in which League candidates qualify for the second round. This modified version of the main empirical model compares second-round elections in which a League candidate ranked third in the first round to elections in which a League candidate ranked second in the first round and then qualified for the second round.

Results in Panel A of Table 2 show no statistically significant effect on any of the outcomes analyzed. By positioning at the extreme right of the political spectrum, a League candidate is not able to attract voters of the excluded candidate in the second round.Overall these findings show that, in order to gain additional support in the second round, a populist

[38] Beppe Grillo, the founder and political mentor of the FSM, in 2011 stated: *"The old division of Left versus Right is dead. In the internet age, it's about citizens versus parliamentary relics."*

candidate should run on a moderate political platform. The advantage of FSM candidates in the second round stems from the fact that by running on a centrist agenda, they are able to attract the votes of the excluded traditional candidate.

Politically aligned opponent. The model further implies that an increase in the anti-establishment sentiment among the population is likely to increase the support for the populist. We should then expect an increase in the FSM probability of winning the election when the opponent candidate in the second round belongs to a party aligned with the national government and thus perceived as established. Panel B of Table 2 shows regression results using a sample of elections in which a FSM candidate faces a politically aligned candidate in the second round. All estimated coefficients increase in magnitude: populists' winning probability almost doubles when they face politically aligned candidates in the second round.[39]

4.5 Disaffected voters and populist party's entry.

Voters' disaffection and populist participation The theoretical model predicts that the populist party is more likely to run in municipalities as the number of disaffected voters is larger. To test for this prediction, we estimate a linear probability model in which the dependent variable y_{it} is a dummy equal to one when in municipality i and election date t a FSM candidate runs for mayor. In order to proxy for the number of disaffected voters we use voter turnout in the last municipal election before 2010 (T_i), i.e. when the FSM entered the Italian political arena. The estimated equation is:

$$y_{it} = \alpha + \beta T_i + X'_{i,2001}\gamma + \lambda_t + u_{it}, \tag{2}$$

where X is a set of pre-determined municipality characteristics measured in the last population census before the establishment of the FSM, i.e. 2001 Italian Population Census; these variables are: labor force participation, unemployment rate, home ownership index, share of secondary and tertiary educated, male to female ratio, share of foreign residents, legal population, area in squared kilometers, altitude, and an indicator for provincial county seat (i.e. *capoluogo*). λ_t are election date fixed effects. We additionally include provincial

[39] In the Appendix Table B.3 we further show that the probability of the incumbent mayor winning the election decreases when a FSM candidate runs for the second round, probably because the incumbent is also perceived as established by voters.

fixed effects to control for unobservable and time-invariant characteristics of the province[40]. Standard errors are clustered at the province level.

Results in Table 3 show a negative correlation between turnout in the last municipal election and the probability of observing a FSM candidate in election date t. As expected, the presence of a FSM candidate in a particular municipal election is positively associated with the unemployment rate and negatively associated with the labor force participation. In column (2) the same Table we include the change in unemployment rate between 2001 and 2011, to capture the effect of the 2009-2011 economic crisis on the populist candidate's presence in the municipal election; this coefficient is positive and statistically significant, implying that municipalities that experienced a larger increase in the unemployment rate after the economic crisis are more likely to have a FSM candidate in the municipal election than the rest. As a robustness check, we further include the interaction between election date and province fixed effects, which control for any observable and unobservable characteristics common to municipalities within the same province in the same election date; results in column (3) remain the same. Overall, results in columns (1)-(3) confirm the first prediction of the model, showing that the participation of the populist party in a particular municipal election is strongly correlated with the number of potential (disaffected) voters (Autor *et al.* , 2016; Dal Bó *et al.* , 2018; Dippel *et al.* , 2015).

Using survey data from 2009 IPSOS Polimetro, we plot the distribution of answers to the question "What is your level of trust in Beppe Grillo?", the leader of the FSM, against respondents' perception of the economic situation of the country. Figure 4 shows a strong correlation between the perception about the state of the economy and trust in Beppe Grillo, thus suggesting that economic factors are important drivers behind the support for the FSM.

Dual Ballot, populist participation, and turnout Another prediction of the model is that when the populist decides to run in an election, the turnout should increase as it is able to attract unsatisfied voters that would have not voted otherwise. This is true in both single and dual ballot electoral systems. Table 4 shows that voter turnout in the first round substantially increases in elections where the populist candidate decides to run; there is an additional increase in turnout as the proportion of disaffected voters increases: the interaction with the the voter turnout in the previous elections indicates that one standard deviation decrease in the previous voter turnout increases voter turnout in the current election by 1.2 percentage point when a populist candidate is present. This result is

[40] A province is an administrative and territorial body intermediate between a municipality and a region. In Italy there are 110 provinces.

robust to the inclusion of municipality characteristics and the interaction between province and election date fixed effects.

The model further conjectures that when the populist decides to run, the mainstream parties may decide to present themselves as less established by presenting new candidates. We therefore test whether the populist decision to run in a particular municipality is correlated with the probability of having the incumbent mayor running in the election. We find a negative correlation, although we cannot exclude reverse causality as the populist may decide to enter when the incumbent mayor does not run (Table B.4).

4.6 Electoral system and populist's entry.

The second prediction of the model indicates that we should observe more populist candidates running in jurisdictions adopting the dual ballot. In columns (3) and (4) of Table 3 we include a dummy indicating if the municipality's population is larger than 15,000 and thus qualifies for a dual ballot electoral system. Conditional on population, the coefficient of the dual ballot dummy is positive and significant. Results in column (4) show that, conditional on population, we observe more populist candidates running in jurisdictions adopting a dual ballot system rather than those characterized by a single ballot one.

We further test for this prediction by employing a regression discontinuity design around population thresholds: municipalities below 15,000 inhabitants adopt a single round system, while a runoff system is in place above this threshold. Under the assumption of continuity of potential outcomes at the population threshold, 15,000, this empirical design allows us to estimate the causal effect of runoff system on the populist party's entry decisions. We focus on municipalities between 5,000 and 25,000 inhabitants and choose a flexible functional form to fit the relationship between the outcome and the population on the either side of the threshold. Results are reported in Table 5; unconditional estimates provide positive but not statistically significant coefficients (Panel A); once we include municipality controls, all estimated coefficients become more precise while their magnitude being the same (Panel B). Interestingly, these estimates become larger when we consider only the elections happening after 2014, i.e the first two years of parliamentary mandate of the FSM. This last result is consistent with FSM learning about their advantage in a runoff system as they gain political experience.[41]

[41] Balancing on observable characteristics and the MCrary test are reported in Table B.5 and Figure B.3 in the Appendix.

4.7 Municipality performance and the selection of the local political class

Municipality performance. So far, we have shown that the testable predictions of the model have been validated by the empirical analysis.

We can further apply the identification strategy developed in Section 4.2 to estimate the effect of FSM's electoral success on a set of indicators for the economic performance of the municipality. Specifically, we estimate the extent to which a populist running in the second round affects municipalities' performance indicators measured one year after the election took place.[42]

Overall, we observe that the performance of the municipality deteriorates a year after the election if the populist candidate qualified for the second round. These estimates can be interpreted as the reduced form effect of populist government on municipality performance. The share of collected taxes decreases by 7 percentage points (first row of Table 6); although the effects on other indicators are not statistically significant, the sign of the coefficients points to the same directions: when the populist reaches the second round and thus improves his chances of winning the election, the efficiency of the municipality declines. As a falsification, we run the same set of regressions using as dependent variables municipality indicators measured in 2010, i.e. before the FSM contested municipal elections. Estimated coefficients are never statistically significant and in general of a smaller magnitude. This last exercise confirms the validity of our study and suggests that the effects in Panel A are likely to be driven by FSM candidates winning the election rather than unobservables.

The Selection of the local political class. One potential reason for the negative effects on municipalities' performance indicators might have to do with a change in the composition of the elected representatives, that is, the mayor and the council members, as well as the appointed members of the local government (chosen by the mayor), when the populist wins the election. We thus estimate if the characteristics of the local political class change when a populist qualifies for the second round. As the FSM has always portrayed its candidates as the alternative of the established political class, we should expect to find a change in the characteristics of the local elected politicians following elections in which the FSM barely qualified to the second round.

To this end, we employ administrative data that provide information on the social and demographic characteristics of the mayor, council members, and government officials over

[42] Data on municipal performance are described in Section 4.1 and are only available for the period 2010-2017. For this reason, the sample is smaller than the one used to produce estimates in Table 1.

the period 2010-2018.[43] We then run regressions of equation 1. We find that when the FSM reaches the second round, local government officials are on average younger than when the FSM does not qualify. The elected mayor and government officials are, on average, 10- and 5-year younger than when the populist is not running in the second round. Moreover, the elected mayor is less likely to be tertiary educated.

These effects should be interpreted as the reduced form effect of FSM's victory on the characteristics of the local political class. The estimated effects thus suggest that politicians and candidates of the FSM are younger and less educated than traditional parties' candidates, ultimately being perceived as not part of the establishment. When a FSM candidate is a likely winner, elected officials are less experienced and less educated, possibly explaining why the efficiency of the municipality, particularly regarding tax collection, declines. However, we cannot rule out alternative explanations. For instance, the election of a populist mayor may also directly affect citizens' behavior, including tax payment.

5 Conclusions

Populist parties are generally described as extreme radical movements threatening Western liberal democracies. However, while they all share a strong anti-establishment ideology, their political positioning along the traditional left to right dimension is opportunistic. Our model suggests that in a highly polarized political setting, with the main mainstream parties representing polar positions along this dimension, populists might benefit by adopting a "centrist" platform, as this allows them to gain the support of disaffected voters on both sides of the political spectrum. This is a particular true if the electoral system is a runoff, as the populist at the second ballot can attract part of the votes of the excluded mainstream party. A number of further predictions concerning electoral outcomes and selection of the political class follow from these observations.

We apply these insights to the Five Star Movement's (FSM) experience in Italian municipal elections, finding strong support in the data. The model explains the political platform of FSM ("beyond" the traditional distinction between left and right, and containing elements of both sides) and the reasons why this party was more likely to run in larger municipalities, characterized by a runoff electoral system. However, we also find, in line with the predictions of the model, some positive effects from the entry of the FSM in the political arena.

Specifically, FSM's participation at municipal elections increased voters' turnout, particularly in those municipalities characterized by lower participation and lack of trust in traditional politics. FSM's participation also increased representativeness as its candidates,

[43] Data on 2019 local government officials are not available yet.

less educated and less experienced, were more similar to their voters and the electorate at large. However, this was also accompanied, in the cities conquered by FSM, by a reduced efficiency in the economic performance of municipalities. Interesting research questions for the future are whether, after a national government experience, FSM can still maintain its anti-establishment widespread perception, and how it will solve the contradictory elements contained in its political platform.

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Tables

Table 1: The effect of a FSM candidate in the II round on electoral outcomes

	$p=1$		$p=2$		LLR
	$\Delta = .15$	$\Delta = .25$	$\Delta = .15$	$\Delta = .25$	
	(1)	(2)	(3)	(4)	(5)
Panel A: unconditional RDD estimates					
Runner-up's victory	0.5428**	0.5501***	0.4421	0.5270**	0.5423**
	(0.2108)	(0.1843)	(0.3128)	(0.2410)	(0.2347)
Observations	123	187	123	187	100
Runner-up's vote share - II Round	0.1422***	0.1329***	0.1109*	0.1484***	0.1382***
	(0.0376)	(0.0305)	(0.0571)	(0.0464)	(0.0434)
Observations	123	187	123	187	106
Turnout - II Round	0.0956***	0.0906***	0.0843**	0.0884***	0.0860***
	(0.0288)	(0.0248)	(0.0316)	(0.0295)	(0.0256)
Observations	123	187	123	187	98
Turnout - I Round	0.0304	0.0311	0.0538*	0.0350	0.0239
	(0.0203)	(0.0194)	(0.0302)	(0.0226)	(0.0220)
Observations	123	187	123	187	98
Panel B: RDD estimates conditional on pre-treatment variables					
Runner-up's victory	0.5147**	0.5183***	0.3707	0.4935**	0.5444**
	(0.1933)	(0.1669)	(0.2708)	(0.2201)	(0.2262)
Observations	123	187	123	187	100
Runner-up's vote share - II Round	0.1408***	0.1276***	0.0944*	0.1414***	0.1318***
	(0.0371)	(0.0313)	(0.0560)	(0.0451)	(0.0387)
Observations	123	187	123	187	106
Turnout - II Round	0.1065***	0.1023***	0.1057***	0.1026***	0.1092***
	(0.0253)	(0.0220)	(0.0255)	(0.0269)	(0.0232)
Observations	123	187	123	187	98
Turnout - I Round	0.0202	0.0235	0.0301	0.0215	0.0137
	(0.0197)	(0.0143)	(0.0292)	(0.0173)	(0.0165)
Observations	123	187	123	187	98

Notes. Significance levels: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parenthesis are clustered at the province level. The Table shows RDD coefficients of having a populist candidate for mayor in the second round. All regressions are weighted by the number of eligible voters and include election year fixed effects. In Panel B, we additionally include municipality characteristics as of 2001 Population Census, these variables are: labor force participation (in log), unemployment rate, home ownership index, share of secondary and tertiary educated, male to female ratio, share of foreign residents, altitude (in log), and an indicator for provincial county seat (i.e. *capoluogo*).

Table 2: Right-wing populist and established opponent

	$p=1$		$p=2$		LLR
	$\Delta = .15$	$\Delta = .25$	$\Delta = .15$	$\Delta = .25$	
	(1)	(2)	(3)	(4)	(5)
Panel A: Right-wing populist					
Runner-up's victory	0.0092	-0.0192	-0.0876	-0.0721	-0.1375
	(0.1557)	(0.1432)	(0.2599)	(0.2196)	(0.1960)
Observations	139	200	139	200	126
Runner-up's vote share - II Round	0.0522	0.0554**	0.0005	0.0293	0.0251
	(0.0322)	(0.0269)	(0.0624)	(0.0462)	(0.0422)
Observations	139	200	139	200	132
Turnout - II Round	0.0194	0.0009	0.0741	0.0498	0.0615
	(0.0220)	(0.0160)	(0.0522)	(0.0363)	(0.0470)
Observations	139	200	139	200	103
Panel B: Politically aligned opponent					
Runner-up's victory	0.7035***	0.6486***	0.8332**	0.7774***	0.8704***
	(0.2057)	(0.1830)	(0.3217)	(0.2165)	(0.2313)
Observations	79	117	79	117	63
Runner-up's vote share - II Round	0.1686***	0.1500***	0.2151***	0.1952***	0.1983***
	(0.0366)	(0.0337)	(0.0611)	(0.0415)	(0.0450)
Observations	79	117	79	117	68
Turnout - II Round	0.0988**	0.0924**	0.1131***	0.0860**	0.1042***
	(0.0369)	(0.0360)	(0.0389)	(0.0372)	(0.0379)
Observations	79	117	79	117	62

Notes. Significance levels: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parenthesis are clustered at the province level. The Table shows RDD coefficients of having a populist candidate for mayor in the second round. Panel A shows RDD coefficients of having a *Lega* candidate for mayor in the second round. Panel B shows RDD coefficients of having a FSM candidate for mayor in the second round on a sample of elections in which the opponent candidate is politically aligned to central government.

Table 3: Impact of voters' disaffection on FSM entry

	(1)	(2)	(3)	(4)
Past Turnout	-0.1463***	-0.1405***	-0.1057***	-0.0993***
	(0.0432)	(0.0430)	(0.0337)	(0.0347)
LFP rate	-0.4188***	-0.3842***	-0.0963	-0.1086*
	(0.0886)	(0.0888)	(0.0639)	(0.0646)
U rate	0.2125***	0.3378***	0.1116**	0.1274**
	(0.0583)	(0.0677)	(0.0495)	(0.0551)
Δ U rate		0.0122***	0.0055***	0.0058***
		(0.0025)	(0.0019)	(0.0020)
Dual Ballot			0.3749***	0.3747***
			(0.0242)	(0.0252)
Controls:				
Election year FE	YES	YES	YES	YES
Province FE	YES	YES	YES	YES
Election year X Province FE	NO	NO	NO	YES
Observations	14,073	13,964	13,964	13,891

Notes. Significance levels: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parenthesis are clustered at the province level. All regressions include controls for municipality characteristics as of 2001 Population Census. These are: legal population (log), area in squared kilometers (log), altitude (log), home ownership index, share of secondary and tertiary educated, male to female ratio, share of foreign residents, and a provincial county seat (i.e. *capoluogo*).

Table 4: FSM candidate and turnout

	(1)	(2)	(3)
Populist	0.0055**	0.0049**	0.0034*
	(0.0024)	(0.0020)	(0.0019)
Past Turnout	0.0771***	0.0765***	0.0773***
	(0.0043)	(0.0046)	(0.0045)
Populist X Past Turnout	-0.0138**	-0.0138**	-0.0116***
	(0.0057)	(0.0055)	(0.0043)
Dual Ballot	0.0026	0.0007	-0.0002
	(0.0057)	(0.0051)	(0.0037)
Controls:			
Election year FE	YES	YES	YES
Province FE	YES	YES	YES
Municipality Characteristics	NO	YES	YES
Election year X Province FE	NO	NO	YES
Observations	14,083	14,073	14,000

Notes. Significance levels: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parenthesis are clustered at the province level. All regressions are weighted by the number of eligible voters. Municipality characteristics are measured as of 2001 Population Census, these are: labor force participation (log), unemployment rate, home ownership index, share of secondary and tertiary educated, male to female ratio, share of foreign residents, legal population (log), area in squared kilometers (log), altitude (log), and an indicator for provincial county seat (i.e. *capoluogo*).

Table 5: Dual Ballot and FSM entry

	All Years		Year>2014	
	(1)	(2)	(3)	(4)
Panel A: unconditional RDD estimates				
Dual Ballot	0.0631	0.1061	0.0948	0.1222
	(0.0437)	(0.0657)	(0.0650)	(0.0903)
Panel B: RDD estimates conditional on pre-treatment variables				
Dual Ballot	0.0623**	0.1032**	0.0913**	0.1397**
	(0.0294)	(0.0439)	(0.0426)	(0.0640)
Controls:				
Polynomial order	1	2	1	2
BW	10,000	10,000	10,000	10,000
Observations	3,662	3,662	1,836	1,836

Notes. Significance levels: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parenthesis are clustered at the province level. The Table shows RDD coefficients of a dual ballot system in a municipality on FSM participation at municipal elections. All regressions are weighted by the number of eligible voters and include election year fixed effects. In Panel B, we additionally include municipality characteristics as of 2001 Population Census; these variables are: labor force participation (in log), unemployment rate, home ownership index, share of secondary and tertiary educated, male to female ratio, share of foreign residents, altitude (in log), and an indicator for provincial county seat (i.e. *capoluogo*).

Table 6: The effect of FSM in the II round on municipalities' performance

	$p=1$		$p=2$		LLR
	$\Delta = .15$	$\Delta = .25$	$\Delta = .15$	$\Delta = .25$	
	(1)	(2)	(3)	(4)	(5)
Panel A: Outcomes measured at $t+1$					
Tax collection capacity	-0.0427*	-0.0339	-0.0707**	-0.0559**	-0.0707**
	(0.0232)	(0.0219)	(0.0331)	(0.0266)	(0.0305)
Observations	88	124	88	124	73
Tax autonomy degree	-0.0407	-0.0655*	-0.0602	-0.0245	-0.0386
	(0.0341)	(0.0335)	(0.0438)	(0.0391)	(0.0460)
Observations	88	124	88	124	35
Expenditure capacity	-0.0090	-0.0069	-0.0692	-0.0244	-0.0303
	(0.0337)	(0.0275)	(0.0493)	(0.0409)	(0.0381)
Observations	88	124	88	124	68
Expenditure rigidity	0.0347	0.0239	0.0744	0.0422	0.0833
	(0.1145)	(0.0864)	(0.1616)	(0.1444)	(0.1361)
Observations	88	124	88	124	65
Panel B: Outcomes measured in 2010 - Placebo					
Tax collection capacity	-0.0341	-0.0193	-0.0769	-0.0562	-0.0428
	(0.0395)	(0.0264)	(0.0505)	(0.0427)	(0.0427)
Observations	119	183	119	183	113
Tax autonomy degree	-0.0202	-0.0338	0.0550	-0.0012	0.0334
	(0.0366)	(0.0266)	(0.0402)	(0.0394)	(0.0382)
Observations	119	183	119	183	59
Expenditure capacity	-0.0075	-0.0096	-0.0779	-0.0418	-0.0440
	(0.0334)	(0.0303)	(0.0507)	(0.0437)	(0.0368)
Observations	119	183	119	183	91
Expenditure rigidity	-0.0231	-0.0130	0.0510	-0.0281	-0.0184
	(0.1272)	(0.0853)	(0.1316)	(0.1374)	(0.1151)
Observations	119	183	119	183	120

Notes: Significance levels: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parenthesis are clustered at the province level. The Table shows RDD coefficients of having a populist candidate for mayor in the second round. All regressions include election year fixed effects.

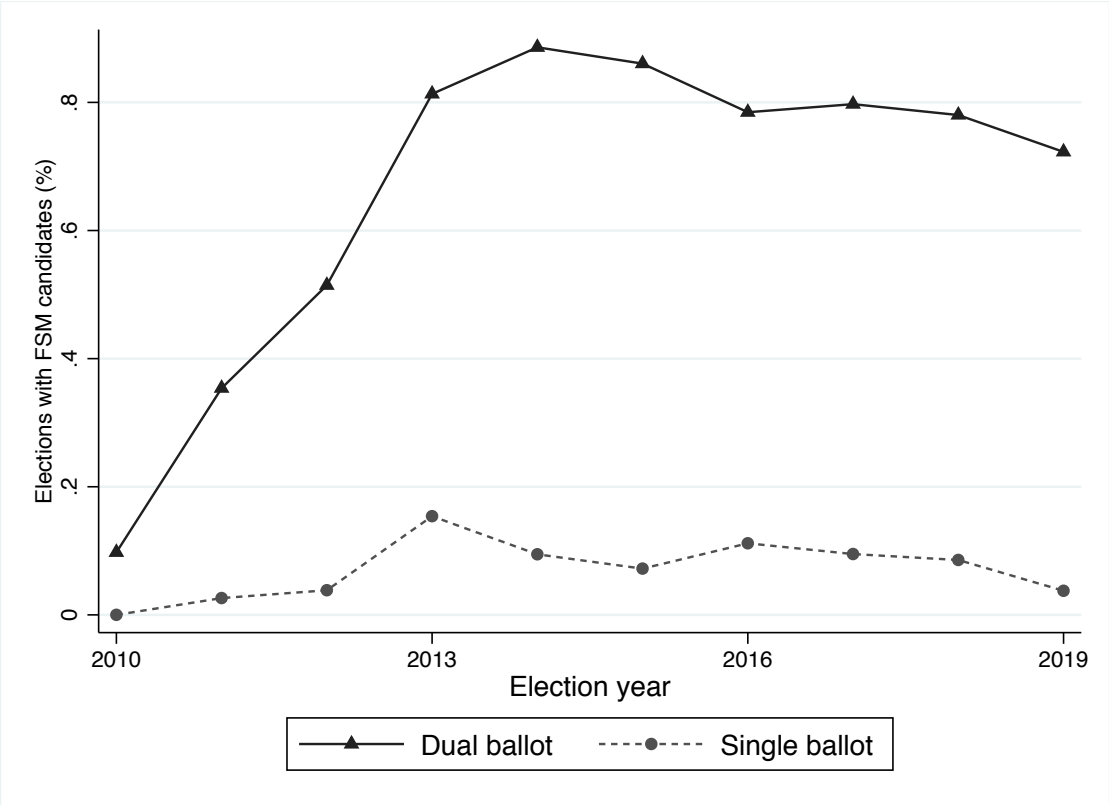
Table 7: The effect of FSM in the II round on local officials' characteristics

	$p=1$		$p=2$		LLR
	$\Delta = .15$	$\Delta = .25$	$\Delta = .15$	$\Delta = .25$	
	(1)	(2)	(3)	(4)	(5)
Panel A: Mayor's characteristics					
Age	-9.0162**	-6.6954*	-16.2782***	-11.4441**	-10.1277*
	(4.0050)	(3.5164)	(5.0921)	(4.4815)	(5.4173)
Observations	109	157	109	157	61
Female	-0.0420	-0.0287	-0.0304	0.0130	0.0114
	(0.1573)	(0.1223)	(0.2195)	(0.1606)	(0.1821)
Observations	109	157	109	157	76
Tertiary educated	-0.4804**	-0.5702***	-0.5212**	-0.3788*	-0.4689**
	(0.2082)	(0.1730)	(0.2259)	(0.2203)	(0.1928)
Observations	109	157	109	157	72
Panel B: Local MPs' characteristics					
Age	-2.4267*	-2.9221**	-2.7405	-1.9178	-2.1903
	(1.4385)	(1.2213)	(1.8815)	(1.7361)	(1.4878)
Observations	109	157	109	157	72
Female	-0.0421	-0.0023	-0.0215	-0.0595	-0.0485
	(0.0389)	(0.0290)	(0.0485)	(0.0447)	(0.0417)
Observations	109	157	109	157	62
Tertiary educated	-0.1255	-0.0936*	-0.2256*	-0.1548*	-0.1546
	(0.0760)	(0.0558)	(0.1147)	(0.0830)	(0.0919)
Observations	109	157	109	157	68
Panel C: Gov officials' characteristics					
Age	-4.7122***	-5.0171***	-3.6808**	-4.2638***	-4.4733***
	(1.2234)	(0.9411)	(1.6786)	(1.3044)	(1.4131)
Observations	107	155	107	155	86
Female	0.0326	0.0383	-0.0123	-0.0082	0.0223
	(0.0542)	(0.0408)	(0.0610)	(0.0528)	(0.0459)
Observations	107	155	107	155	70
Tertiary educated	0.1417	0.0873	-0.0282	0.1845	0.1936
	(0.1568)	(0.1413)	(0.2649)	(0.2206)	(0.1686)
Observations	107	155	107	155	70

Notes. Significance levels: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parenthesis are clustered at the province level. The Table shows RDD coefficients of having a populist candidate for mayor in the second round. All regressions include election year fixed effects.

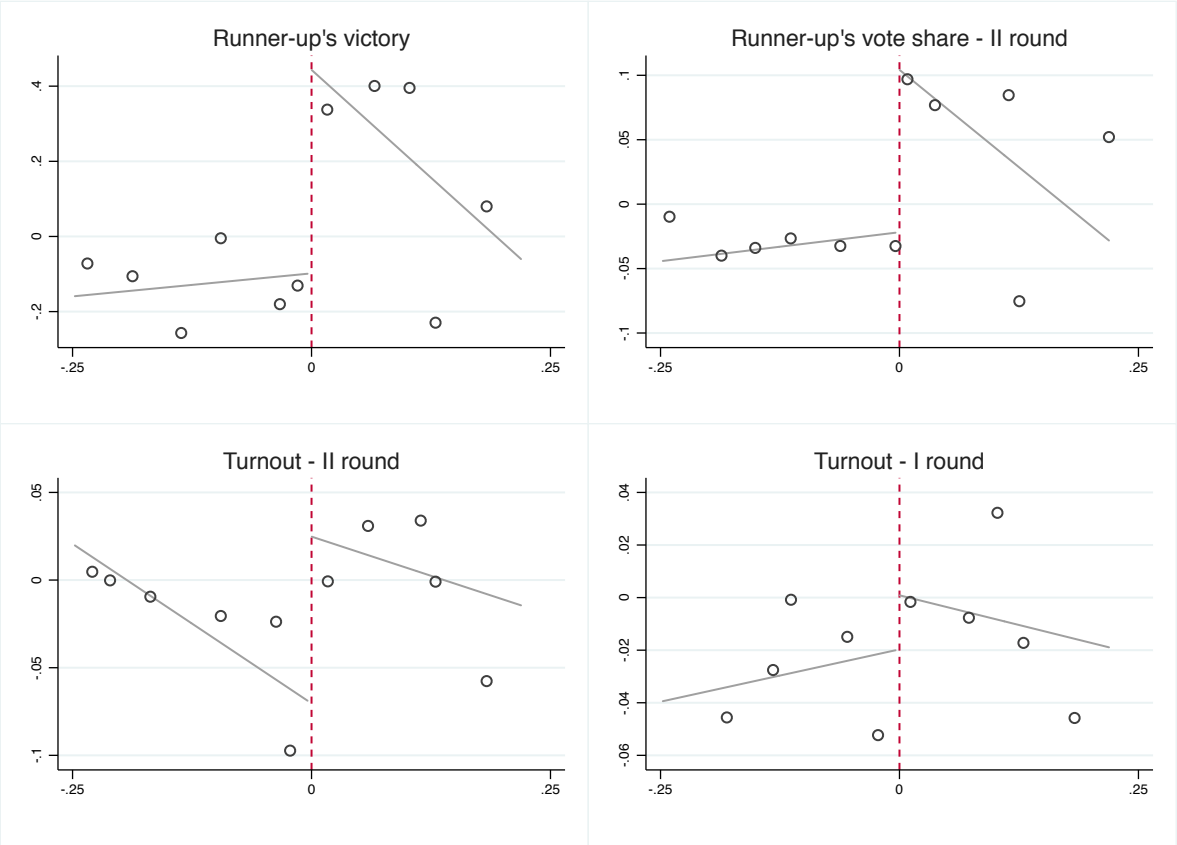
Figures

Figure 1: FSM Participation in municipal election by year



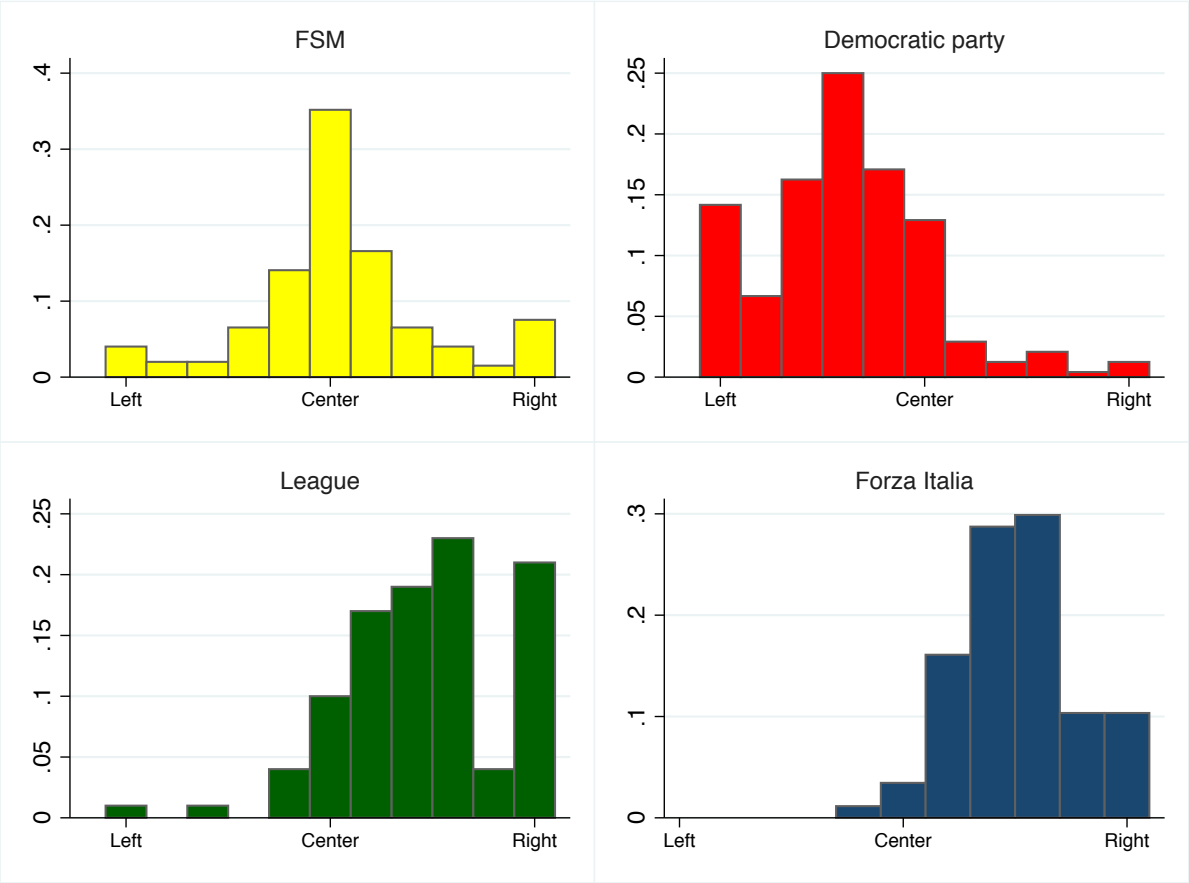
Notes: The figure plots the share of elections in which a FSM candidate was running.

Figure 2: RDD Results on electoral outcomes



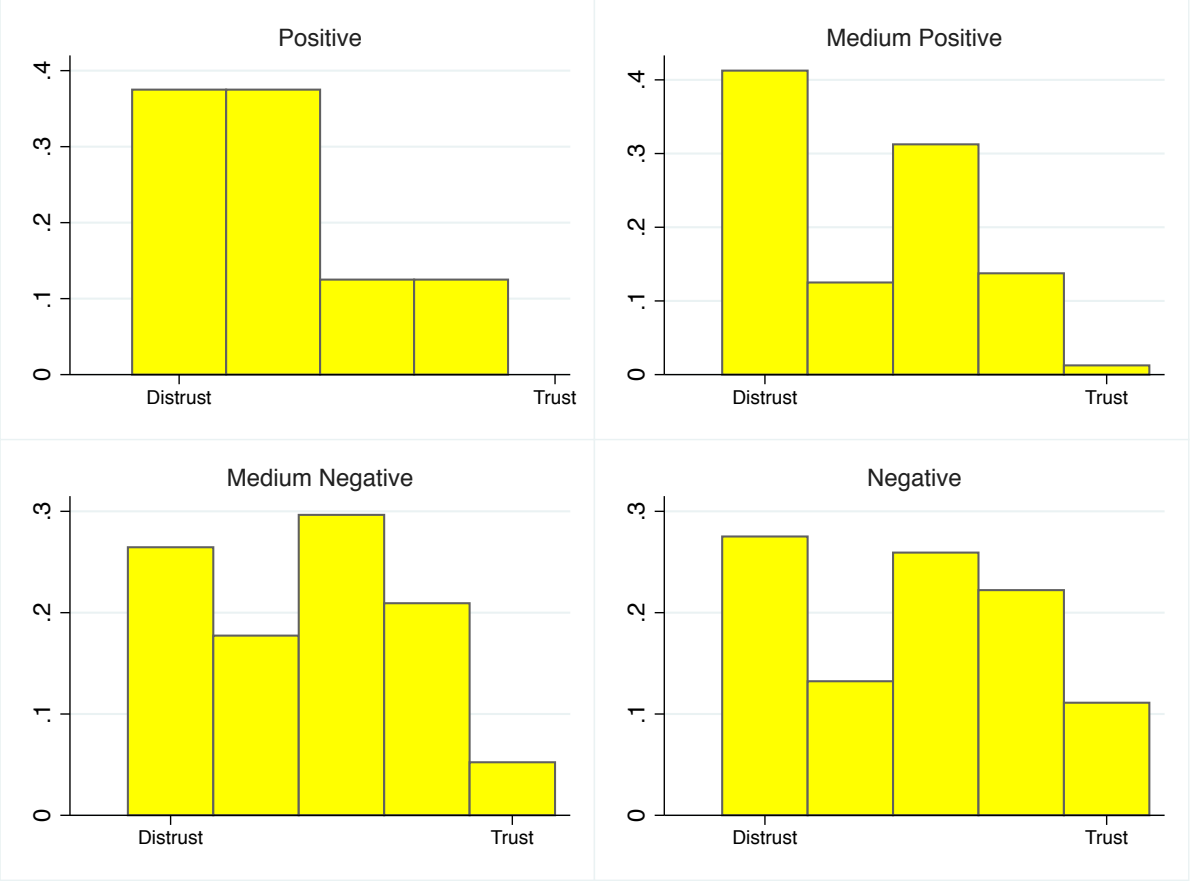
Notes: the figures display the first order polynomial regressions at the .25 bandwidth shown in the first column of Table 1. On the y-axes we plot the outcome; on the x-axes the absolute margin of victory of the FSM candidate. We bin data in .05 intervals. Treated elections have positive distance and control elections have negative distance. The grey lines report linear fits from regressions of the outcome on the running variable (separately for the two sides of the discontinuity).

Figure 3: Placement left/right by Political Party Preferences



Notes: Data come from the 8th wave of the European Social Survey. The sample is composed of 2954 respondents.

Figure 4: Trust in FSM and perceptions on the economy



Notes: Data come from the 2009 IPSOS Polimetro. The sample is composed of 635 respondents.

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A Appendix

A.1 Derivation of cumulative distribution functions

1. Consider the random variable $z = c + \alpha\gamma$ where c is a random variable distributed uniformely on the interval $[0,1]$ and $\alpha\gamma = x$ is a random variable distributed uniformely on the interval $[0,\gamma]$. γ is a fix constant, with $0 < \gamma \leq 1$. The task is to derive the density function of z, $f_{z(\gamma)}$ on the support $[0, 1+\gamma]$. Applying the convolution theorem, $f_{z(\gamma)} = \int f_x(x) f_c(z-x)dx$, where $f_x = \frac{1}{\gamma}$ and $f_c = 1$ where the integral is defined (that is, for $0 \leq z - x \leq 1$ and $0 \leq x \leq \gamma$) and are zero otherwise. Checking the respect of these constraints, this gives: A.1 $f_{z(\gamma)} = \frac{1}{\gamma}(1+\gamma-z)$ for $1 \leq z \leq 1+\gamma$; $f_{z(\gamma)} = 1$ for $\gamma \leq z \leq 1$; $f_{z(\gamma)} = \frac{1}{\gamma}z$ for $0 \leq z \leq \gamma$. Using A.1, $F_{z(\gamma)}(z \leq 1) = 1 - F_{z(\gamma)}(1 \leq z \leq 1+\gamma) = 1 - \int_1^{1+\gamma} \frac{1}{\gamma}(1+\gamma-z)dz = 1 - \frac{\gamma}{2}$. Note that for $\gamma = 0$, $z = c$ for any value of a and therefore z has the same distribution of c, uniform on $[0,1]$. QED. 2. Consider the random variable $\widehat{z} = \alpha\gamma + c$, where c is a random variable distributed uniformely on the interval $[0,1]$ and α is a random variable distributed uniformely on the interval $[0; \gamma\alpha^*]$, where γ is a constant, with $0 < \gamma \leq 1$ and α^* is a constant, with $0 \leq \alpha^* \leq 1$. Note that the density function of a, f_a is equal to $\frac{1}{\alpha^*}$. $\widehat{z}$ has support on $[0, 1+\alpha^*\gamma]$. Applying the convolution theorem, for $\alpha^* > 0$ its density function $f_{\widehat{z}(\gamma)}$ can be computed as: A.2 $f_{\widehat{z}(\gamma)} = \frac{\widehat{z}}{\gamma\alpha^*}$, for $0 \leq \widehat{z} \leq \alpha^*\gamma$; $f_{\widehat{z}(\gamma)} = 1$, for $\alpha^*\gamma < \widehat{z} \leq 1$; $f_{\widehat{z}(\gamma)} = \frac{\alpha^*\gamma+1-\widehat{z}}{\gamma\alpha^*}$, for $1 < \widehat{z} \leq 1+\alpha^*\gamma$. Using A.2, $F_{\widehat{z}(\gamma)}(z \leq 1) = 1 - F_{\widehat{z}(\gamma)}(1 < \widehat{z} \leq 1 + a^*\gamma) = 1 - \int_1^{1+\alpha^*\gamma} \frac{\alpha^*\gamma+1-\widehat{z}}{\gamma\alpha^*}dz = 1 - \frac{\alpha^*\gamma}{2}$. For $\alpha^* = 0$, or $\gamma = 0$, $\widehat{z} = c$, for any realization of α. QED.

A.2 Proofs of the main results

Lemma 1 *Consider the expected total number of votes for party M, $EV^M(q^M) = EV_R^M(q^M) + EV_L^M(q^M)$. Then: (i) for $\gamma < \frac{1}{4}$, there exists no q^M such that the populist party can get votes from both left and right oriented voters; (ii) the "centrist" platform $q^M = 0$ is respectively: for $\frac{1}{4} \leq \gamma < \frac{1}{2}$, a global minimun; for $\gamma = \frac{1}{2}$,an inflection point; and for $\frac{1}{2} < \gamma \leq 1$,a global maximum, of the function $EV^M(q^M)$.*

Proof. Summing over the expected number of votes for party M and substituting for $\alpha^o = (1/2 + q^M)^2/\gamma$ *and* $\alpha^* = (1/2 - q^M)^2/\gamma$ we get ■ $EV^M(q^M) = \frac{2N}{3\gamma}((1 - (1/2 + q^M)^2)x_1) + (1 - (1/2 - q^M)^2)x_2)$ where $x_1 = \max(0; \gamma - (1/2 + q^M)^2))$ and $x_2 = \max(0; \gamma - (1/2 - q^M)^2)$. Solving,

$x_1 \geq 0$ requires $q^M \geq \frac{1}{2} - \gamma^{\frac{1}{2}}$ and $x_2 \geq 0$ requires $\gamma^{\frac{1}{2}} - \frac{1}{2} \geq^M$; substituting it is immediate to see that for $\gamma < \frac{1}{4}$, there is no value of q^M that could simultaneously satisfy both inequalities. This proves (i). Clearly, as for $\gamma < \frac{1}{4}$ party M cannot get votes from both sides, his best strategy is to choose either $q^M = \frac{1}{2}$ or $q^M = -\frac{1}{2}$ as this choice would give him in expected terms 2/3 of the votes of right or left oriented voters. Next, suppose $\gamma \geq \frac{1}{4}$ and let us differentiate $EV^M(q^M)$ wrt q^M : $dEV^M(q^M)/dq^M = 2N(\frac{1}{\gamma}(((1/2+q^M)^3 - (1/2-q^M)^3)) - (1+\frac{1}{\gamma})q^M)$ Inspecting, the only value of q^M such that $dEV^M(q^M)/dq^M = 0$ is $q^M = 0$, so that $q^M = 0$ is an extreme for the function $EV^M(q^M)$. Note also that for $\gamma \geq \frac{1}{4}$ at $q^M = 0$, both $x_1 \geq 0$ and $x_2 \geq 0$. Taking second derivative, $d^2EV^M(q^M)/(dq^M)^2 = 2N(\frac{1}{\gamma}((3(1/2+q^M)^2 + 3(1/2-q^M)^2)) - (1+\frac{1}{\gamma}))$ Evaluating at $q^M = 0$, $d^2EV^M(q^M)/(dq^M)^2 = N(\frac{1-2\gamma}{\gamma})$; this proves (ii). Finally, note that for $\gamma \leq \frac{1}{2}$ as q^M is a global minimum the best choice for party M is to choose one of the two bounds, for example, $q^M = \frac{1}{2} - \gamma^{\frac{1}{2}}$. However, at this extreme only left oriented voters would vote for M. But then the best choice for party M is to choose again $q^M = \frac{1}{2}$ as this would maximize the votes from this side of the electorate. QED

Proposition 1 *(i) There exists a value of* γ, $\frac{19}{32} < \gamma^* < 1$ *such that for* $\gamma \geq \gamma^*$, M *enters in the political competition running on the platform* $q^M = 0$. *(ii) for any* γ *such that* M *would be willing to enter and runs on the platform of one of the traditional parties, his probability of victory if he runs on the centrist platform* $q^M = 0$ *is larger.*

Proof. (i) Invoking symmetry, from (6) and (7) at the centrist platform $q^M = 0$, the expected number of votes for each traditional party, $EV^P(q^M = 0)$ and for the M party $EV^M(q^M = 0)$ are given respectively by ■ A.1 $EV^P(q^M = 0) = N(1 + \frac{7}{16\gamma})/3$ and A.2 $EV^M(q^M = 0) = N(1 - \frac{1}{4\gamma})$ Note that by the assumed symmetry of the shock ϵ the votes for M at $q^M = 0$ are independent by the ex post realization of the shock while the votes for R and L depend on it. In order to win the elections, M must beat even the traditional party hit by a positive shock, $\epsilon \geq 0$. Computing, this means that M will win the elections for A.3 $\frac{32\gamma - 19}{16\gamma + 7} \geq \epsilon$ Inspection shows that the inequality in A.3 will certainly be violated for $\gamma \leq \frac{19}{32}$ (the RHS is not positive) and certainly satisfied for $\gamma = 1$ (by assumption, $\overline{\epsilon} < 13/24$). As the RHS of A.3 is increasing in γ, this means that there is an intermediate value of γ where A.3 is satisfied with an equality. Adding the organization cost K, party M will then enter the electoral competition at $\frac{19}{32} < \gamma^* < 1$, where γ^* is implicitely determined by the equation A.4 $V\widetilde{F}_\epsilon(\frac{32\gamma^* - 19}{16\gamma^* + 7}) = K$. where $\widetilde{F}_\epsilon$ is the cumulative distribution function for ϵ in the range $[0, \overline{\epsilon}]$. This proves (i). To prove (ii), note that if party M runs on the platform of one of the two traditional parties he can win only if the realization of the shock is such that $N(1+\epsilon)\frac{2}{3} \geq N(1-\epsilon)(1-\frac{\gamma}{3})$. Solving, this requires $\epsilon \geq \frac{1-\gamma}{5-\gamma}$. As the support for ϵ is $(-\overline{\epsilon}, \overline{\epsilon})$ this can only happen if $\overline{\epsilon} > \frac{1-\gamma}{5-\gamma}$; substituting for $\overline{\epsilon} = \frac{1}{20}$ and solving, this requires $\gamma > \frac{15}{19}$. Substituting in A.3 for $\gamma = \frac{15}{19}$, the RHS is approximately equal to 3/10 which is larger than $\overline{\epsilon} = \frac{1}{20}$. This means

that at $\gamma = \frac{15}{19}$ the populist enters, running on the platform $q^M = 0$, and wins with probability 1. As the RHS of A.3 is increasing in γ, he will also wins for sure for all $\frac{15}{19} \leq \gamma \leq 1$. If instead the populist entered and ran on the platform $q^M = \frac{1}{2}$ (or $q^M = -\frac{1}{2}$) for some $\gamma^{**} > \frac{15}{19}$ it would win with probability $\frac{K}{V} < \frac{1}{2}$ at γ^{**}. This probability will then increase with γ for all $\gamma > \gamma^{**}$ to reach a maximum of 1/2 for $\gamma = 1$. QED

Lemma 2 *Upon $M's$ entry, electoral turnout will always increase.*

Proof. By symmetry and since the symmetric shock cancels out, total participation when M enters can be computed as: ■ A.5 $(N\frac{2}{3}(1 + \frac{7}{16\gamma}) + N(1 - \frac{1}{4\gamma}))/2N = \frac{1}{6}(5 + \frac{1}{8\gamma})$ When M does not enter, by proposition 1, total participation is $(1 - \frac{y}{3})$. Subtracting this last expression from A.5 and re-arranging, total participation increases if A.6 $g(\gamma) = \gamma^2 - \frac{1}{2}\gamma + \frac{1}{16} > 0$ The function $g(\gamma)$ has a minimum at $\gamma = \frac{1}{4}$, when $g(\gamma) = 0$ and it is always positive for $\gamma > \frac{1}{4}$. QED.

Lemma 3 *(i)There exists a value of γ, $\widehat{\gamma} > 0.523$ such that for $\gamma \geq \widehat{\gamma}$ the populist party enters the electoral arena when the electoral system is a dual ballot mechanism. (ii) $\gamma^* > \widehat{\gamma}$ where γ^* is the threshold at which the populist party enters under the single ballot mechanism.*

Proof. From the discussion above, $M's$ votes at the second ballot will be equal to $EV^M(q^M = 0) + \frac{1}{2}N(\frac{1}{4\gamma} + \frac{1}{2})(1 - \epsilon))$ while the votes for the traditional party who made at the second round will remain at $(1+\epsilon)EV^P(q^M = 0)$ with $\epsilon > 0$. Invoking (6) and (7) and manipulating, M will then win the second round if ■ A.1 $(1 - \frac{1}{4\gamma}) + \frac{1}{2}(\frac{1}{4\gamma} + \frac{1}{2}) - \frac{1}{3}(1 + \frac{7}{16\gamma}) - \epsilon(\frac{1}{2}(\frac{1}{4\gamma} + \frac{1}{2}) + \frac{1}{3}(1 + \frac{7}{16\gamma})) \geq 0$ Collecting terms, A.1 can be rewritten as A.2 $\frac{44\gamma - 19}{28\gamma + 13} \geq \epsilon$ Which is less restrictive than the corresponding condition derived in Proposition 2. For instance, for $\gamma = \frac{1}{2}$, the RHS of A.2 is $\frac{3}{27} > \overline{\epsilon}$. However, in order to reach the second ballot, γ must be such that M can beat the traditional party hit by a negative shock at the first round. Under the assumption of persistence of the shock between rounds, this implies: A.3 $EV^M(q^M = 0) - (1 - \epsilon)EV^P(q^M = 0) = (1 - \frac{1}{4\gamma}) - \frac{1}{3}(1 + \frac{7}{16\gamma})(1 - \epsilon) \geq 0$ Solving, this can be written as: A.4 $\epsilon \geq \frac{19 - 32\gamma}{16\gamma + 7}$ In order for M to participate and win at the second round, γ must be such that both inequalities A.2 and A.3 can be simultaneously satisfied. Solving, this occurs for $\gamma \geq 0.523$. Notice that this value is strictly lower than the limiting value $19/32 \approx 0,59$ that we found in Proposition 2. Adding the organizational cost, M will enter in the electoral competition for $\gamma \geq \widehat{\gamma} > 0.523$, where $\widehat{\gamma}$ is implicitely defined by the condition A.5 $V(F_\epsilon(\frac{19 - 32\widehat{\gamma}}{16\widehat{\gamma} + 7}) - F_\epsilon(\frac{44\widehat{\gamma} - 19}{28\widehat{\gamma} + 13})) = K$. Comparing A.5 with A.4 in the proof of Proposition 2, it is immediate that $\widehat{\gamma} < \gamma^*$. QED

Lemma 4 *Suppose that the populist enters and runs on the platform $q^M = 0$ at the first round. Then, if the populist party reaches the second round, electoral participation at this final round is larger than if the two established parties reach the second round.*

Proof. Invoking Proposition 1, note first that under our assumption of permanence of all shocks between rounds, turnout at the second round when only the two traditional parties compete will be given by $(1-\frac{y}{3})$. This is true regardless whether the populist ran (and was defeated) at the first round or whether the populist did not run at all. In the latter case, it is obvious. In the former case, by symmetry, as the voters who had voted for the populist party at first round will either abstain or vote for the preferred traditional party in the same number at the second round. When the populist runs at the second round instead, total participation is given by: ■ A.1 $(EV^M(q^M=0)+\frac{1}{2}N(\frac{1}{4\gamma}+\frac{1}{2})(1-\epsilon))+(1+\epsilon)EV^P(q^M=0))/2N$ Suppose, as in the main text, that party R was hit by the negative shock in the first round, so the final ballot is between M and L. Invoking eq. (7), the right oriented voters who vote for M at the first round are $N(1-\epsilon)(\frac{1}{2}-\frac{1}{8\gamma})$; invoking eq.(8), at the second round M will get additional $N(1-\epsilon)(\frac{1+2\gamma}{8\gamma})$ votes from the right oriented voters. Summing over, $\frac{3}{4}N(1-\epsilon)$ right oriented voters will vote for M at the final ballot. Note that for $\gamma>\frac{1}{4}$, $\frac{3}{4}N(1-\epsilon)>(1-\frac{\gamma}{3})N(1-\epsilon)$ which would have been the participation of the right oriented voters at the final ballot if the M party had not reached this ballot. Concerning the L voters, when M runs at both ballots, participation and voting at the second ballot is the same as at the first ballot. Specifically, by eq. 6, $N(1+\epsilon)(\frac{1}{2}-\frac{1}{8\gamma})$ left oriented voters vote for M and $N(1+\epsilon)\frac{1}{3}(1+\frac{7}{16\gamma})$ vote for L. Summing over, $N(1+\epsilon)\frac{40\gamma+1}{48\gamma}$ left oriented voters turn out at the elections. If party M does not reach the second ballot, some of the left oriented voters abstain and some go back to vote for L, so that $N(1+\epsilon)(1-\frac{y}{3})$ left oriented voters participate at the elections. Thus, participation by the left voters will be higher when M reach the second round if $\frac{40\gamma+1}{48\gamma}>(1-\frac{y}{3})$, that is if $16\gamma^2-8\gamma+1>0$, which is true for any $0\leq\gamma\leq1$. QED

Proposition 2 *Suppose that the traditional parties can now freely choose their platforms and that the populist party decides to enter at the centrist platform $q^M=0$; in a Nash equilibrium the best reply of each traditional party is still to stick to its preferred platform.*

Proof. Suppose party R expects M to run on the platform $q^M=0$ and party L to run on the platform $q^L=-\frac{1}{2}$; then the choice that maximises party R's votes is to propose $q^R=\frac{1}{2}$. Indeed, it is immediate to see from eqs.(3) and (4), that proposing $-\frac{1}{2}<q^R<\frac{1}{2}$ would just alienate some of the right voters who would have voted for R if it sticked to $q^R=\frac{1}{2}$, without earning any extra vote from the right or left oriented voters who voted for either M or L. Choosing $q^L=-\frac{1}{2}$ would mean sharing the left oriented voters with L giving all right oriented voters and the untrustworthy voters of both sides to party M. Any other choice outside the interval $\left[-\frac{1}{2};\frac{1}{2}\right]$ would also be self-defeating. QED. ■

B Appendix Tables and Figures

Table B.1: RDD Balance Tests - Municipality characteristics

	$p=1$		$p=2$		LLR
	$\Delta = .15$	$\Delta = .25$	$\Delta = .15$	$\Delta = .25$	
	(1)	(2)	(3)	(4)	(5)
Pop Density (log)	0.0111	-0.1004	-0.0036	0.3259	-0.0702
	(0.2843)	(0.2748)	(0.4404)	(0.3776)	(0.3945)
Observations	123	188	123	188	72
Altitude (log)	0.3404	0.0543	0.1112	0.5322	0.2400
	(0.4885)	(0.3445)	(0.7027)	(0.5804)	(0.6514)
Observations	123	187	123	187	83
County seat	-0.1147	-0.0778	-0.0227	-0.1108	-0.0534
	(0.1428)	(0.1124)	(0.1983)	(0.1620)	(0.1641)
Observations	123	187	123	187	80
LF participation rate (log)	0.0310	0.0188	0.0185	0.0349	0.0245
	(0.0295)	(0.0221)	(0.0446)	(0.0357)	(0.0296)
Observations	123	187	123	187	116
Unemployment rate	0.0043	0.0070	0.0497	0.0280	0.0334
	(0.0213)	(0.0189)	(0.0308)	(0.0240)	(0.0253)
Observations	123	187	123	187	84
Foreigners (%)	-0.0253	0.0263	-0.0952	-0.0716	-0.0777*
	(0.0390)	(0.0446)	(0.0630)	(0.0438)	(0.0456)
Observations	123	187	123	187	121
Home ownership	-0.0062	0.0133	-0.0165	-0.0206	-0.0168
	(0.0171)	(0.0167)	(0.0276)	(0.0190)	(0.0196)
Observations	123	188	123	188	86
Second & tertiary educated	-0.0028	-0.0095	0.0061	-0.0060	0.0118
	(0.0293)	(0.0263)	(0.0392)	(0.0306)	(0.0362)
Observations	123	187	123	187	78

Notes: Significance levels: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parenthesis are clustered at the province level. The Table shows RDD coefficients of having a populist candidate for mayor in the second round. All regressions include election date fixed effects.

Table B.2: RDD Balance Tests - Municipality characteristics - the League

	$p=1$		$p=2$		LLR
	$\Delta = .15$	$\Delta = .25$	$\Delta = .15$	$\Delta = .25$	
	(1)	(2)	(3)	(4)	(5)
Pop Density (log)	-0.0606	-0.1527	-0.0878	0.2195	-0.0287
	(0.3008)	(0.2814)	(0.4801)	(0.3827)	(0.4125)
Observations	123	187	123	187	72
Altitude (log)	0.5247	0.0990	0.5262	0.5180	0.5522
	(0.5008)	(0.3475)	(0.7686)	(0.5461)	(0.6588)
Observations	123	187	123	187	83
County seat	-0.0576	-0.0446	-0.0160	-0.0715	-0.0886
	(0.1507)	(0.1158)	(0.2078)	(0.1637)	(0.1852)
Observations	123	187	123	187	83
LF participation rate (log)	0.0148	0.0087	-0.0057	0.0268	0.0098
	(0.0296)	(0.0208)	(0.0436)	(0.0318)	(0.0295)
Observations	123	187	123	187	116
Unemployment rate	-0.0146	-0.0173	-0.0444	-0.0175	-0.0291
	(0.0215)	(0.0175)	(0.0414)	(0.0251)	(0.0260)
Observations	137	198	137	198	114
Male to female ratio	-0.0130	-0.0094	-0.0099	-0.0121	-0.0083
	(0.0095)	(0.0078)	(0.0169)	(0.0129)	(0.0110)
Observations	137	198	137	198	120
Foreigners (%)	0.0180	0.0081	0.0429	0.0321	0.0466
	(0.0424)	(0.0313)	(0.0686)	(0.0535)	(0.0520)
Observations	137	198	137	198	106
Home ownership	0.0212	0.0157	0.0194	0.0152	0.0095
	(0.0275)	(0.0207)	(0.0417)	(0.0350)	(0.0295)
Observations	137	198	137	198	118
Second & tertiary educated	0.0011	-0.0055	0.0004	0.0074	0.0016
	(0.0212)	(0.0176)	(0.0363)	(0.0292)	(0.0270)
Observations	137	198	137	198	107

Notes: Significance levels: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parenthesis are clustered at the province level. The Table shows RDD coefficients of having a *Lega* candidate for mayor in the second round. All regressions include election date fixed effects.

Table B.3: RDD Results on Incumbent's Probability of Victory

	$p=1$		$p=2$		LLR
	$\Delta = .15$	$\Delta = .25$	$\Delta = .15$	$\Delta = .25$	
	(1)	(2)	(3)	(4)	(5)
Panel A: unconditional RDD estimates					
Incumbent victory	-0.2568	-0.2199*	-0.1406	-0.1626	-0.2918*
	(0.1594)	(0.1136)	(0.1568)	(0.1615)	(0.1727)
Observations	123	187	123	187	86
Panel B: RDD estimates conditional on pre-treatment variables					
Incumbent victory	-0.1645*	-0.1919**	-0.1351	-0.0948	-0.2089**
	(0.0829)	(0.0914)	(0.1596)	(0.1019)	(0.0986)
Observations	123	187	123	187	86

Notes: Significance levels: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parenthesis are clustered at the province level. The Table shows RDD coefficients of having a populist candidate for mayor in the second round. All regressions are weighted by the number of eligible voters and include election date fixed effects. In Panel B, we additionally included municipality characteristics as of 2001 population census; these variables are: labor force participation (in log), unemployment rate, home ownership index, share of secondary and tertiary educated, male to female ratio, share of foreign residents, altitude (in log), and an indicator for provincial county seat (i.e. *capoluogo*).

Table B.4: OLS Results on Incumbent Running

	(1)	(2)	(3)	(4)
Populist	-0.0322*	-0.0371**	-0.0308*	-0.0696**
	(0.0181)	(0.0181)	(0.0184)	(0.0327)
Controls:				
Election year FE	YES	YES	YES	YES
Province FE	YES	YES	YES	YES
Election year X Province FE	NO	NO	YES	No
Municipality FE	NO	NO	NO	YES
Observations	14,067	13,958	13,884	13,884

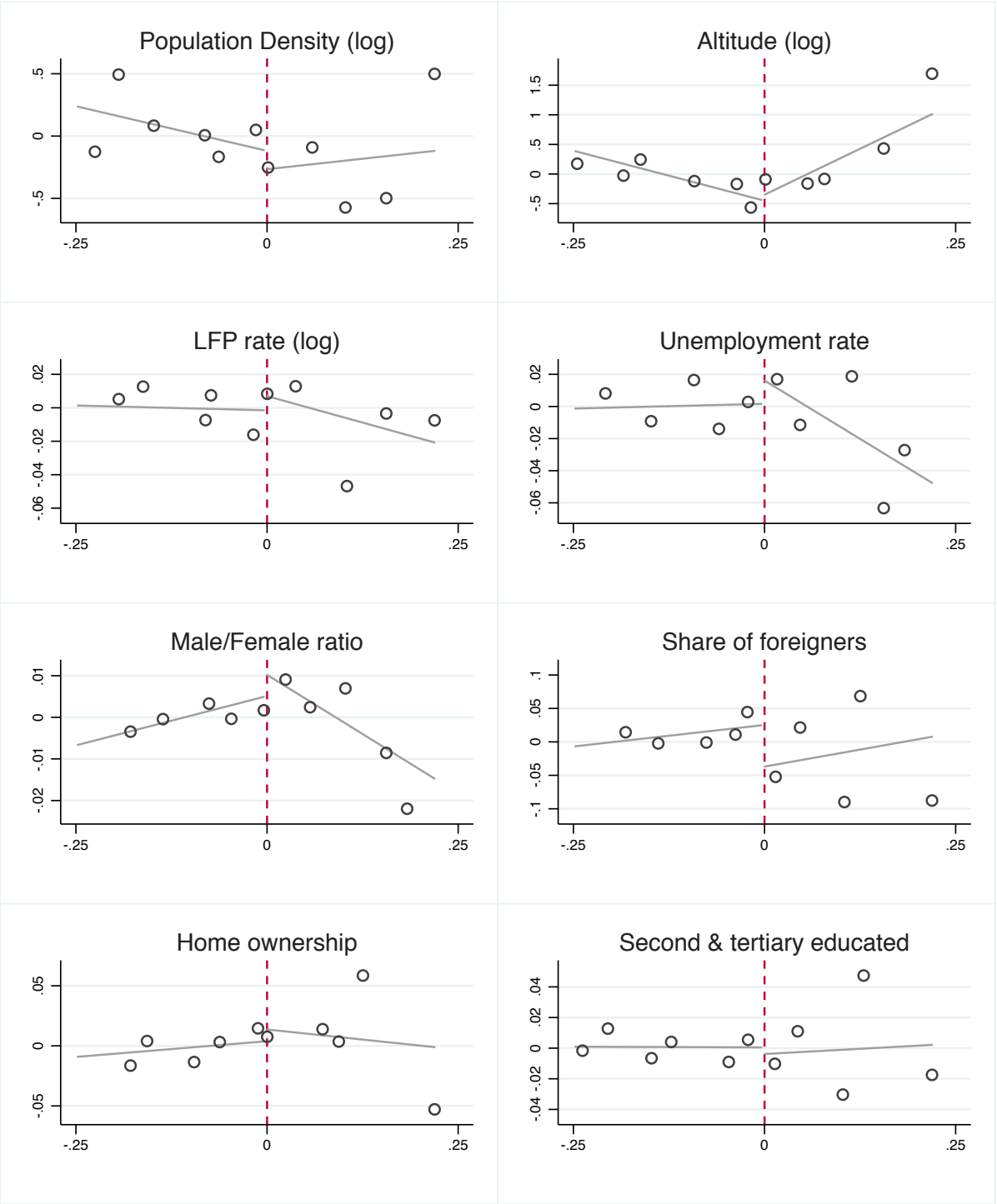
Notes. Significance levels: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parenthesis are clustered at the province level. Municipality characteristics are measured as of 2001 Population Census, these variables are: labor force participation (in log), unemployment rate, home ownership index, share of secondary and tertiary educated, male to female ratio, share of foreign residents, altitude (in log), and an indicator for provincial county seat (i.e. *capoluogo*).

Table B.5: Balance Test - Population threshold

	All Years		Year>2014	
	(1)	(2)	(3)	(4)
Altitude (log)	0.2095	-0.0898	0.2396	-0.1486
	(0.1520)	(0.2178)	(0.1539)	(0.2558)
County seat	-0.0105*	-0.0210*	-0.0069	-0.0138
	(0.0055)	(0.0114)	(0.0044)	(0.0097)
LF participation rate (log)	-0.0178	0.0167	-0.0172	0.0034
	(0.0146)	(0.0220)	(0.0158)	(0.0246)
Unemployment rate	0.0042	-0.0119	-0.0002	-0.0088
	(0.0141)	(0.0181)	(0.0152)	(0.0170)
Foreigners (%)	-0.0158	0.0297	-0.0057	0.0462
	(0.0207)	(0.0274)	(0.0204)	(0.0282)
Home ownership	0.0034	0.0011	0.0044	0.0027
	(0.0068)	(0.0096)	(0.0077)	(0.0092)
Second & tertiary educated	0.0060	0.0069	0.0055	0.0018
	(0.0109)	(0.0132)	(0.0115)	(0.0138)
Controls:				
Date FE	YES	YES	YES	YES
polynomial order	1	2	1	2
BW	10,000	10,000	10,000	10,000
Observations	3,604	3,604	1,794	1,794

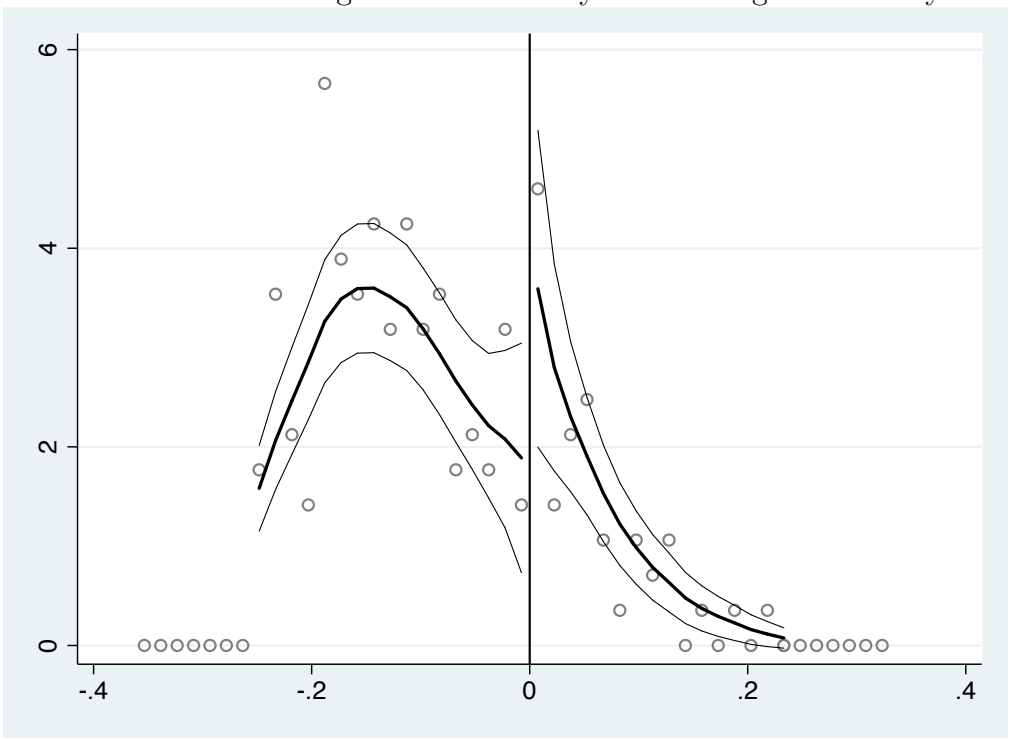
Notes: Significance levels: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parenthesis are clustered at the province level. The Table shows RDD coefficients of having a Dual Ballot system. All regressions include election date fixed effects.

Figure B.1: RDD Balance Test - Margin of Victory



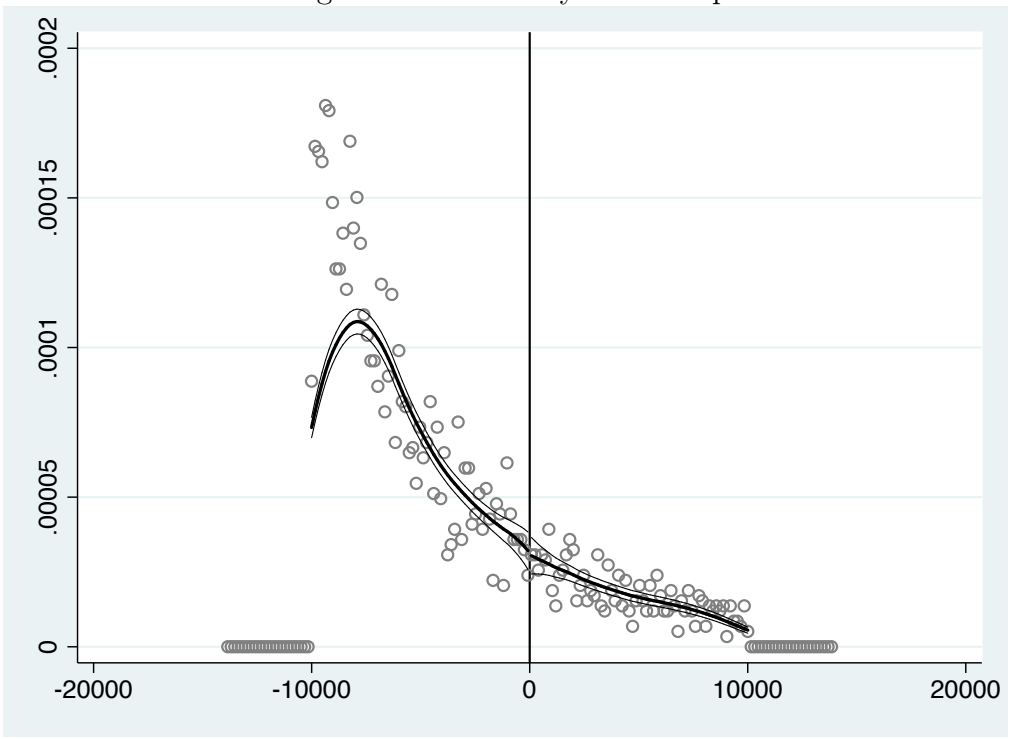
Notes. The Figures display the first order polynomial regressions at the .25 bandwidth shown in the first column of Table B.1. On the y-axes we plot the outcome; on the x-axes the absolute margin of victory of the FSM candidate. We bin data in .05 intervals. Treated elections have positive distance and control elections have negative distance. The grey lines report linear fits from regressions of the outcome on the running variable (separately for the two sides of the discontinuity).

Figure B.2: McCrary Test - Margin of Victory



Notes. The Figure plots the density approximation of the number of municipal elections within .25 margin of victory between the second and the third ranked candidate in the first round. The approximation estimates separate densities on the two sides of the border and it is the basis of the test proposed by McCrary (2008). The t-statistics of the test is 1.28.

Figure B.3: McCrary Test - Population threshold



Notes. The Figure plots the density approximation of the number of municipal elections between 5,000 and 25,000 inhabitants. The approximation estimates separate densities on the two sides of the border and it is the basis of the test proposed by McCrary (2008). The t-statistics of the test is .07.

C Appendix (not for publication)

C.1 Investment in x^P

As explained in the main text, we suppose in this section that the traditional parties R, L, can change the perception of being "established" in the eyes of voters by investing in costly effort x^P. Specifically, let $E^P = 1 - x^P$, $0 \leq x^P \leq 1$, $P = R, L$, and the cost function being given by $c^P = c(x^P)$, with $c(0) = 0$, and $c' > 0, c'' \geq 0$. The sequence of events remained unchanged with respect to the previous section, except that now at step 1, parties R and L simultaneously and not cooperatively can also decide whether and how much to invest in x^P. We first study the case of the SB election system. Consider then party R. Suppose first that M has not entered and hence R runs only against the other established party L. Consider a right oriented voter. In deciding which party she prefers between R and L, she compares her utility under the two opposing policy platforms: (a.1) $U^r(q^R) = 1 - \gamma\alpha^i(1 - x^R)$; $U^r(q^L) = -\gamma\alpha^i(1 - x^L)$; Inspection of (a.1.) shows that under our assumptions on the distribution of α^i and γ, the right oriented voter would (weakly) always prefer party R to party L for all x^R, x^L. This means that investing in x^R for R might be useful only in order to recover some right oriented voters from abstention; R cannot lure away voters from the opposite party. Repeating the steps in section, investing x^R will bring the R party an expected number of right oriented voters equal to $N(1 - \frac{\gamma(1-x^R)}{3})$. By simmetry, the expected number of votes for L would be $N(1 - \frac{\gamma(1-x^L)}{3})$. Letting $s(x^R, x^L)$ be the probability of winning for party R, its expected utility under this strategy is: (a.2) $EV^R = s(x^R, x^L)V - \sigma(1 - s(x^R, x^L)) - c(x^R)$ where $s(x^R, x^L) = \text{prob}(\epsilon \geq \frac{\gamma(x^L - x^R)}{6-\gamma(2-x^L-x^R)}) = 1 - F(\frac{\gamma(x^L-x^R)}{6-\gamma(2-x^L-x^R)})$. Assuming interior solution, the

FOC are given by: (a.3) $\frac{d}{dx^R}EV^R = -(V + \sigma)F' \frac{\gamma(6-2\gamma(1-x^L))}{(6-\gamma(2-x^L-x^R))^2} - c'(x^{R*}) = 0$ where $F' < 0$. Observe that for $F'' \leq 0$ the SOC are certainly satisfied. At the symmetric Nash equilibrium, $x^{R*} = x^{L*} = x^*$; at this equilibrium $F(0) = \frac{1}{2}$, so the two traditional parties still win with probability $\frac{1}{2}$. However, for $x^* > 0$ electoral participation would be higher than in the case with $E^P = 1$: $1 - \frac{\gamma}{3}(1 - x^*)$. Evaluating (a.3) at the symmetric equilibrium: (a.4) $-(V + \sigma)F' = 2c'(x^*)(\frac{1}{\gamma} - 1 + x^*))$ The RHS is increasing in x^* and decreasing in γ while the LHS is increasing in $V + \sigma$. Hence, traditional parties will invest more in reducing their elitarian feature the larger is γ and $V + \sigma$ and the lower is the cost. To get an explicit solution, assume $c^P = \pi x^P$ with $\pi > 0$ and also suppose F is uniform. Substituting in (a.3): (a.5) $x^* = \frac{V+\sigma}{\pi 4\bar{\epsilon}} - \frac{1-\gamma}{\gamma}$. (a.5) shows that x^* is decreasing in the unitary cost of effort π and in $\bar{\epsilon}$, in addition of being increasing in γ and $V + \sigma$. This because the investment is potentially less rewarding when uncertainty is higher. However, all these comparative statics results assume an interior solution, which is not guaranteed. For example, $x^* = 0$ for $\gamma \to 0$, while $x^* > 0$ for γ sufficiently high. Next, consider again party R and suppose it now runs against both party L and party M, which might enter at platform

$q^M = 0$. As discussed above, party R cannot hope to lure the left oriented voters by investing in x^R; however, it might recover some of right oriented voters that would otherwise vote for M. Furthermore, it might even deter entry by the populist party if R manages (together with the simultaneous action by party L on left oriented voters) to claim back enough right oriented voters from M. Consider then a right oriented voter. As discussed she would never support L,but will decide which party to support between R and M, by comparing her utility under the two opposing policy platforms: (a.6) $U^r(q^R; x^R) = 1 - \gamma\alpha^i(1 - x^R)$; $U^r(q^M; x^R) = 1 - \frac{1}{4}$; Clearly, the right oriented voter will support R if $\alpha^i \leq \widehat{\alpha} = \frac{1}{4(1-x^R)\gamma}$ and M otherwise. Repeating the steps of section 3, expected votes for R and M will then be: (a.7) $EV^R(q^M) = N(1 + \widehat{\alpha}(2 - \gamma\widehat{\alpha}))/3$ (a.8)

$EV^M(q^M) = N2((1 - \widehat{\alpha})(1 - \gamma\widehat{\alpha}) + (1 - \widetilde{\alpha})(1 - \gamma\widetilde{\alpha}))/3$ where $\widetilde{\alpha} = \frac{1}{4(1-x^L)\gamma}$. Assume for simplicity that $\gamma = 1$. Subtracting (a.8) from (a.7) and solving for ϵ, we get that R beats M for realizations of the shock such that (a.9)$\epsilon \geq \epsilon^*(\widehat{\alpha}, \widetilde{\alpha}) = -1 + \frac{2((1-\widehat{\alpha})^2+(1-\widetilde{\alpha})^2)}{1+\widehat{\alpha}(2-\widehat{\alpha})}$ However, in order to win the elections R needs also beat L. Computing the expected voters of party L and subtracting from (a.8) we get that R beats L for (a.10) $\epsilon \geq \epsilon^{**}(\widehat{\alpha}, \widetilde{\alpha}) = \frac{\widetilde{\alpha}(2-\widetilde{\alpha})-\widehat{\alpha}(2-\widehat{\alpha})}{2+\widehat{\alpha}(2-\widehat{\alpha})+\widetilde{\alpha}(2-\widetilde{\alpha})}$ Finally, it is also useful to compute the realization of the shock such that L beats M: (a.11) $\epsilon \leq \widehat{\epsilon}(\widehat{\alpha}, \widetilde{\alpha}) = 1 - \frac{2((1-\widehat{\alpha})^2+(1-\widetilde{\alpha})^2)}{1+\widetilde{\alpha}(2-\widetilde{\alpha})}$ Note that at $\widehat{\alpha} = \widetilde{\alpha}$, $\epsilon^{**}(\widehat{\alpha}, \widetilde{\alpha}) = 0$ and $\widehat{\epsilon}(\widehat{\alpha}, \widetilde{\alpha}) = -\epsilon^*(\widehat{\alpha}, \widetilde{\alpha})$.Differentiating, it is also easy to see that $\partial\epsilon^*(\widehat{\alpha}, \widetilde{\alpha})/\partial\widehat{\alpha} < 0, \partial\epsilon^{**}(\widehat{\alpha}, \widetilde{\alpha})/\partial\widehat{\alpha} < 0, \partial\widehat{\epsilon}(\widehat{\alpha}, \widetilde{\alpha})/\partial\widehat{\alpha} > 0$. To discuss the incentives for the traditional parties in investing in x^P, consider first the case where $x^R = x^L = 0$, which corrisponds to $\widehat{\alpha} = \widetilde{\alpha} = \frac{1}{4}$. This is the case studied in the main text, because it implies $E^P = 1$ for both parties. Substituting, it is easy to check that at $\widehat{\alpha} = \widetilde{\alpha} = \frac{1}{4}$, $\epsilon^*(\widehat{\alpha}, \widetilde{\alpha}) > \overline{\epsilon} > -\overline{\epsilon} > \widehat{\epsilon}(\widehat{\alpha}, \widetilde{\alpha})$; in line with our Proposition 3, for $\gamma = 1$, party M would then enter and win for sure, because there are no realization of the shock such that one of the two traditional party can beat it. However, party R can improve his chances by investing in x^R, that is by increasing $\widehat{\alpha}$. Keeping $\widetilde{\alpha}$ fixed, this would reduce $\epsilon^*(\widehat{\alpha}, \widetilde{\alpha})$ and $\epsilon^{**}(\widehat{\alpha}, \widetilde{\alpha})$, and if the effort is such that $\overline{\epsilon} > \epsilon^*(\widehat{\alpha}, \widetilde{\alpha})$, party R has now some chances to win against M. But note that increasing $\widehat{\alpha}$ has also the effect of raising $\widehat{\epsilon}(\widehat{\alpha}, \widetilde{\alpha})$, thus improving the chances of winning for party L against M . This is because by investing in x^R, party R steal some votes from M and if the shock is negative enough, party L might be the one who benefits from it. More precisely, assuming an interior solution, the optimal level of investment for party R is determined by the following F.O. condition: (a.12) $(\frac{-\partial\epsilon^*(\widehat{\alpha},\widetilde{\alpha})}{\partial\widehat{\alpha}})F'(\epsilon \leq \epsilon^*)(V + \frac{\sigma}{4}) - (\frac{\partial\widehat{\epsilon}(\widehat{\alpha},\widetilde{\alpha})}{\partial\widehat{\alpha}})F'(\epsilon \leq \widehat{\epsilon})\frac{3\sigma}{4} - \frac{c'(x^R)}{4\widehat{\alpha}^2} = 0$ The first term measures the net benefit of the investment; the reduction in ϵ^* allows R to win more often against M (netting $V + \frac{\sigma}{4}$), but at the cost of letting L also win more often against M (losing in this interval of values σ rather than $\frac{\sigma}{4}$), the second term in (a.12). Provided that $V > \frac{\sigma}{2}$ expected returns for the investment by party R are still positive (because for $\widetilde{\alpha}$ fixed $|\partial\epsilon^{**}(\widehat{\alpha}, \widetilde{\alpha})/\partial\widehat{\alpha}| > |\partial\widehat{\epsilon}(\widehat{\alpha}, \widetilde{\alpha})/\partial\widehat{\alpha}|$), but this implicit benefit offered to party L adds to the direct cost of the effort, $c(x^R)$, thus reducing the incentive for R to invest. Plus, the investment must also

be paid, the third term in (a.12) (recall, $x^R = \frac{4\widehat{\alpha}-1}{4\widehat{\alpha}}$).In the symmetric equilibrium, party L would face and solve the mirror problem, so that (a.12) would also characterize the FO for L's optimal choice (inverting ϵ^* and $\widehat{\epsilon}$); furthermore, at the symmetric equilibrium $x^R = x^L = x^*$, and so both FO should be evaluated at $\widehat{\alpha} = \widetilde{\alpha}$. Clearly, depending on the parameters, the equilibrium solution might be very different. Traditional parties might simply not invest at all, if the cost is very high; or might invest enough to eliminate any incentive to enter for party M in the first stage (recall that M would not enter if the probability of winning is smaller than K/V), if M is able to correctly predict the reactions of the two parties. If M does not enter, then condition (a.4) above determines the investment by the two parties. But it is also possible an intermediate solution where parties invest enough to make their probability of winning against M positive even with $\gamma = 1$, but not enough to prevent its entry. Finally, note that at the symmetric Nash equilibrium the optimal level of effort it is suboptimal; as long as $V > \frac{\sigma}{2}$, a planner that chooses x so to max the sum of the two traditional parties expected utilities would not consider a larger probability of victory by one of the two party as a cost but as a benefit. Considering the SB electoral mechanism does not change qualitatively the results of this section. If M does not enter, under our assumptions that all shock occur in the first round and are persistent, the SB is identical to the FB. If M enters, it would be even more important for the traditional parties to avoid that M reaches the second round, because if it enters it will much more likely to win. But as each traditional party suffers more if the other traditional party wins that if the populist party wins (it loses σ in the first case and $\frac{\sigma}{4}$ in the second) this would reduce the incentive for each party to invest in x^P. A similar trade off as captured by (a.12) would then emerge.

C.2 Asymmetric E^P

Suppose $E^R = 1 \geq E^L \geq \gamma > \gamma^*$ in eq. (1). $E^L \geq \gamma$ implies that the same $F_{z(\gamma)}$ can still be used to study electoral participation (see Appendix 1) and $\gamma > \gamma^*$ that in the symmetric case $E^R = E^L = 1$ party M would enter at platform $q^M = 0$ under the single ballot (see Propositition 2). Repeating the steps in section 3, if M does not enter, as both types of voters still strictly prefer the closer ideological party, expected voters for R and L are respectively, $N(1 - \frac{\gamma}{3})$ and $N(1 - \frac{\gamma E^L}{3})$. That is, fewer left oriented voters would abstain, implying that L is now more likely to win when competing with R alone; in order to beat L, R should receive a positive shock $\epsilon > \frac{\gamma(1-E^L)}{6-\gamma(1+E^L)}$, which is going to happen with probability $(1-F_\epsilon(\epsilon \leq \frac{\gamma(1-E^L)}{6-\gamma(1+E^L)})) < \frac{1}{2}$. Suppose now M decides to enter on platform q^M. As $E^R = 1$, the effect in terms of expected voting behaviour of the right oriented voters is the same we studied in section 3; specifically, (a.1) $EV^R(q^M) = N(1 + \alpha^*(2 - \gamma\alpha^*))/3$; $EV_R^M(q^M) = N2((1-\alpha^*)(1-\gamma\alpha^*))/3$. where $(1/2-q^M)^2 \equiv \gamma\alpha^*$. However, repeating the steps in section 3, results now change for the expected behaviour of the left oriented voters, as they are now more inclined

to support and vote for the Left party for any q^M: (a.2) $EV^L(q^M) = \frac{1}{3}N(1 + \frac{a^\circ}{E^L}(2 - \alpha^\circ E^L\gamma))$.; $EV_L^M(q^M) = N\frac{2}{3}(1 - \frac{a^\circ}{E^L})(1 - \gamma\alpha^\circ)$. where $(1/2 + q^M)^2 = \gamma\alpha^\circ$. Summing up the votes for M :

(a.3) $EV^M(q^M) = N\frac{2}{3}((1 - \frac{a^\circ}{E^L})(1 - \gamma\alpha^\circ) + (1-\alpha^*)(1 - \gamma\alpha^*))$ This immediately entails:

Lemma 5 *A.1 Under the single ballot the optimal platform for party M has* $q^{M*} > 0$.

Proof. Differentiating (a.3) with respect to q^M to find the platform that maximizes M votes, we observe $dEV^M(q^M = 0)/dq^M > 0$. As $d^2EV^M(q^M = 0)/(dq^M)^2 < 0$, this implies $q^{M*} > 0$. QED ■ To get an intuition for the Lemma, suppose on the contrary that the M party had set $q^M = 0$. However, this cannot be optimal because if M increases slightly q^M from zero, as long as $E^L < 1$, it gets more votes from right oriented voters than it loses from left oriented ones. M would then have an incentive to keep increasing q^M, untill the gain in votes from the right side exactly match the loss in votes from the left side. The Lemma has two implications. First, as the total votes that M can collect when $E^L < 1$ are lower than the votes he can collect when $E^L = 1$, then M will be ceteris paribus less likely to win if it enters. This also implies that M will be less likely to enter; that is, if γ^* is the minimum level of γ such that M enters in the electoral competition when $E^L = 1$ and the system is single ballot (see Proposition 3) then a $\gamma > \gamma^*$ will be needed to enter when $E^L < 1$. Intuitively, if there is already a relative strong opposition to the incumbent R party, it will be more difficult for M to enter and win under any electoral system. The second implication concerns the effect of the electoral system on M optimal platform. As stated in the Lemma above, if the system is single ballot, M wants simply to maximizes the number of votes: by the discussion in the main text as $\gamma > \gamma^* > \frac{1}{2}$ the solution can be found by maximizing $EV^M(q^M)$. The incentives under the dual ballot might be different. Everything depends on the size of E^L. If this is close to 1, exploiting a continuity argument, then party M could still win by simply choosing the paltform of either party or the centrist strategy providing γ is large enough. But if E^L is relatively small, party M might not be able to beat L with enough probability to justify entry. For E^L =0 for instance the only possible strategy for the populist party, if it enters, is to choose the platform of the R's party.