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## ELECTORAL RULES AND MUNICIPAL FINANCES: EVIDENCE FROM TWO REFORMS IN ITALY

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### 1. Introduction

Local finance offers an important testing ground for analyses of fiscal policy and political economics. The sheer number of local communities and the fact that many institutional features can be taken as common across localities inside a single country make the results of empirical analysis on local governments more convincing than either single case studies or inter-country comparisons (Besley and Case, 2003). Moreover, local governments are often interested by reforms that can be taken as exogenous with respect to the local community. Hence, one can hope to use these episodes to cast light on important and unresolved issues in economics. Italy is a good case in point. In this country, at the beginning of the Nineties, local finance was interested by two reforms that deeply changed both the politics and the funding of local governments.

### 2. The electoral reform

#### 2.1. Institutional details

Until 1993, municipal governments in Italy were ruled by a proportional parliamentary system. Citizens voted for party lists to elect the legislative body (i.e., the city council); the council then appointed the mayor and the municipal executive office. Since the reform (Law 81/1993), the mayor has been directly elected by citizens, together with the legislative body and with rules that guarantee the mayor a supporting majority in the council. The municipal council can still dismiss the mayor, but then the council is also forced to resign and new elections need to take place. The rationale of the reform, in line with what was occurring at the same time for all other levels of government in Italy (Bordignon and Monticini, 2012; Bordignon and Turati, 2009) was to make the mayor directly accountable to citizens and to increase her grip on the council, eliminating the instability that had characterized previous municipal governments<sup>1</sup>.

The new electoral rule also discriminates between municipalities below and municipalities above 15,000 inhabitants<sup>2</sup>. In the former, the mayor is elected in a *single round* under plurality rule; in the latter, she is elected with a *runoff system*. More specifically, below the threshold, candidates are supported by a list only (made up by a single party or coalition of parties), the candidate that gets plurality becomes mayor, and the list supporting the winner gets 2/3 of the seats in the municipal councils<sup>3</sup>. Above the threshold, parties (or

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<sup>1</sup> Indeed, in the universe of mayoral elections from 1993 to 2007, only in 1% of the cases the mayor was removed because the council approved a vote of no confidence. This is in sharp contrast with what happened before the reform.

<sup>2</sup> In Italy, there are about 8,100 municipalities, 90% of which have less than 15,000 inhabitants.

<sup>3</sup> The remaining 1/3 of the seats are divided among the losing lists in proportion of their vote shares. To gain seats, a list must get at least 4% of the votes.

coalitions) present lists of candidates for the council and support a candidate for mayor. 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. If a candidate for mayor gets more than 50% of the votes in the first round, she 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. As 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.

What is of interest here is the sharp discontinuity in the electoral rule at the 15,000 threshold. Interestingly, while number of councilors, mayor's and councilor's wages, central government grants, etc. all vary (at different thresholds) as municipal population increases, following national regulations, no such changes occur in the interval between 10,000 and 20,000 inhabitants. Furthermore, one can show that no other variable referring to municipalities, such as the characteristics of the population, the economy or the environment, presents a similar discontinuity at the threshold level. This then provides some confidence that if there is any systematic and significant difference in policy outcomes between municipalities above and below the threshold (inside the above interval), this can only be due to the difference in the electoral rule.

## **2.2. The impact of the reform: Policy moderation**

Which effects should then one expect from a change in the electoral rules, moving from single to dual ballot system? An extensive literature in political science addresses this issue. The well-known "Duverger Law", for example, predicts a clear relationship between the features of the electoral rule and the equilibrium number of political parties. Single ballot under plurality rule should lead to only two parties or two "serious candidates" running. The predictions for the runoff are instead less clear cut, and it is usually grouped with other electoral systems that admit a larger number of parties ("Duverger hypothesis").

But the predictions on the equilibrium number of parties or candidates, however interesting for political scientists, are of limited importance for economists. In the end, if parties are few or many do not matter much; what matters is what they do. The real interesting question is therefore if voting with a system or the other changes systematically what we expect governments to be able to do in terms of policy. This is an issue that has been very little discussed in the economic literature; and indeed, in spite of its empirical importance<sup>4</sup>, we know very little about the effects of the runoff.

In Bordignon, Nannicini and Tabellini (2013) we tackle this issue theoretically. The main prediction is that the runoff, in a system as the Italian one characterized by an ideologically polarized electorate and by strong extremist parties, should lead to greater *policy moderation*. And this is desirable on welfare grounds, if moderate parties elicit the support of most voters, as is usually the case, in Italy as well<sup>5</sup>. The intuition is very simple and can be derived in a variety of theoretical setups. Under a single ballot system, small, extremist parties have no chance of winning and get plurality. But if they can command the support of a large enough number of voters, they can threaten the ideologically closer moderate parties to lose the elections, if they do not accept an alliance with them. This threat is less credible under the runoff system, provided that some of the extremist voters, at the final ballot, are however willing to vote (rather than

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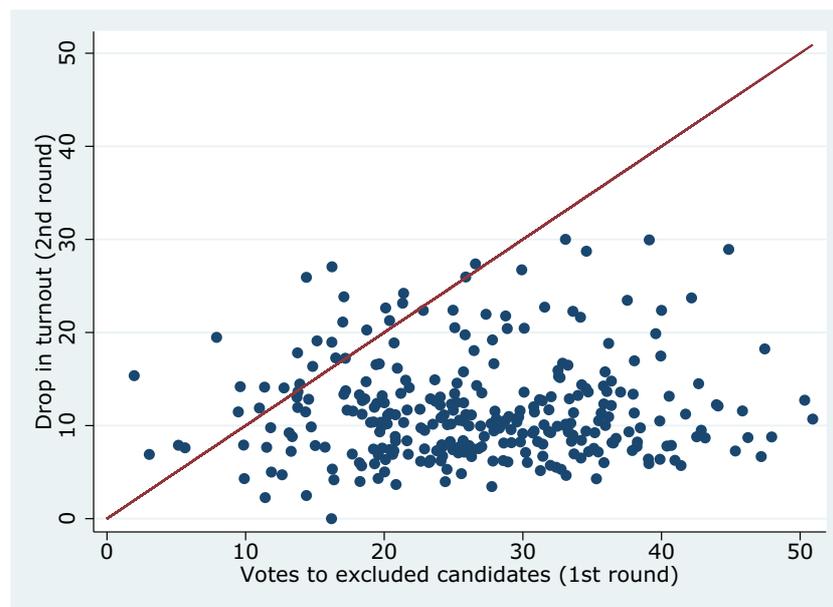
<sup>4</sup> The best known example is the French Presidential system. But runoff mechanisms are used extensively in many other countries such as in Latin American, in the US gubernatorial primary elections and in several local and regional elections. See Cox, 1997.

<sup>5</sup> Surveys data show that ideological polarization of the electorate is increasing in many parts of the world. See the relevant data in World Values Survey.

abstain), once the extremist candidate has been eliminated at the first round. The implication is that the runoff should reduce the bargaining power of the extremists, weakening their influence on equilibrium policy. Notice that although this may mean, as in the original Duverger analysis, that there might be more parties or candidates running in a runoff than under the single ballot (if the moderate candidates or parties prefer to run alone at the first round)<sup>6</sup>, this is *not* essential for our prediction. Moderate and extremist parties might still decide to run together at the elections, but as the extremist's bargaining power is reduced, the coalition will however form on a less extreme platform than under the single ballot<sup>7</sup>.

The argument relies on the fact that some of the extremist voters, even in the absence of their preferred candidate, might still decide to turn out at the elections (at the second ballot) and vote for the candidate they dislike less, rather than abstaining. Figure 1 shows that this is indeed the case, at least in Italy. In the figure we plot the turnout at the second round for municipalities above the threshold with votes for the losers at the first round. The figure shows that voting for losers at the first round is substantial; on average, 30% of votes go to candidates that do not make to the second round. But the drop in electoral participation at the second round is much lower, only 15% on average. This means that approximately 50% of voters for losers turn out at the second ballot and vote for some different candidates than they did at the first round.

**Figure 1 Turn out (at the second round) versus votes for losers (at the first).**



Source: Bordignon, Nannicini and Tabellini (2013)

But how can one test for moderation in policy? There is no obvious way to measure policy moderation. In Bordignon, Nannicini and Tabellini (2013) we then take a different route, using the volatility of the main policy tool of municipalities, the property tax on real estate (ICI)<sup>8</sup>, as an indicator<sup>9</sup>. This is a tax for which

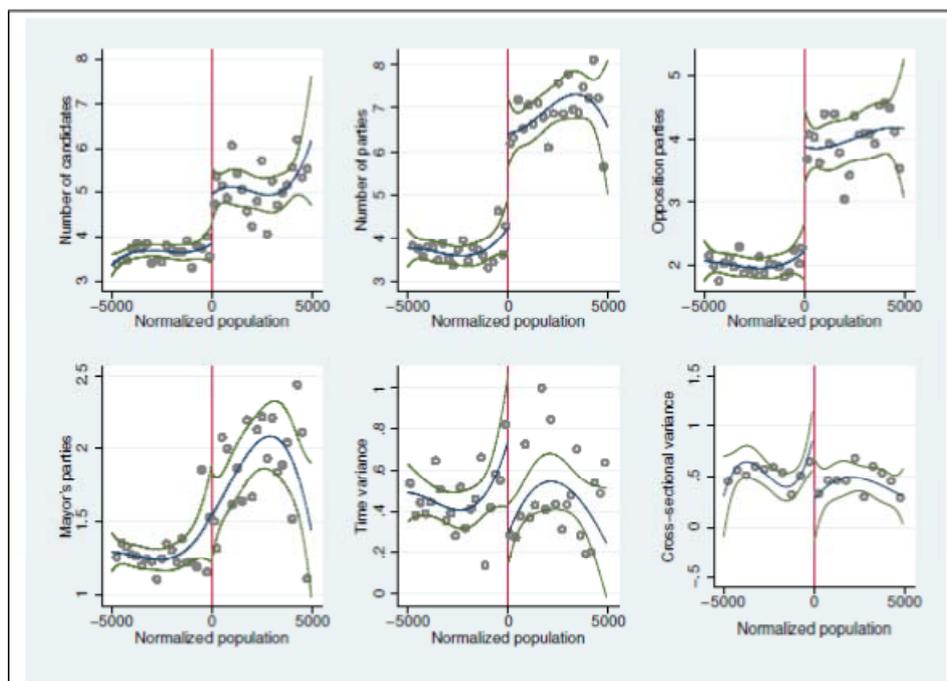
<sup>6</sup> We prove that this is indeed the case in Italy.

<sup>7</sup> The argument can be derived more easily by assuming sincere voters (and strategic parties and candidates), but it holds even assuming strategic voters, although in this case, not surprisingly, other equilibria are possible.

<sup>8</sup> See below for a discussion of the institutional characteristics of the property tax. In our work, we test the effect on both the property tax on commercial buildings and the one on residence housing.

data show the presence of a strong partisan effect: the more leftish (rightist) is a party, the higher (the lower) is the property tax rate that it wishes to impose. But then this means that municipalities above the threshold should be characterized by a lower volatility of the property tax both cross-sectional (between municipalities of the same population size) and across time for the same municipality. Intuitively, as the municipal government shifts from one side to the other of the political spectrum, the runoff should dampen the influence of the extremist parties on policy, leading to less variation in the property tax rate. This is indeed a prediction of our theory, provided that political turnover is not significantly different above and below the threshold, something that we can prove empirically. Using a RDD design, we then test if the variance of the property tax rate is statistically different above and below the threshold. Results are strongly supportive for our theory. In all exercises, the variance of the property tax shows a sharp and negative discontinuity when moving from just below to just above the threshold, dropping by 60 to 70%, depending on specification (see figure 2 below).

**Figure 2 Impact of runoff elections on policy volatility**



Notes. Dependent variables: *No. of candidates* running for mayor in the first round; *No. of parties* supporting mayoral candidates in the first round; *Opposition parties* supporting the losing candidates; *Mayor's parties* supporting the winning candidate; *Time variance* (i.e., variance across terms averaged over the entire sample period) and *Cross-sectional variance* (i.e., variance across municipalities averaged over bins of 100 inhabitants) of the business property tax rate. The central line is a spline 3<sup>rd</sup>-order polynomial in the normalized population size (i.e., population minus 15,000); the lateral lines represent the 95% confidence interval of the polynomial. Scatter points are averaged over 250-inhabitant intervals. Municipalities between 10,000 and 20,000 only.

Source: Bordignon, Nannicini and Tabellini (2013)

<sup>9</sup> For the reasons discussed above we focus on a sample composed by all Italian municipalities between 10,000 and 20,000 inhabitants (667 towns), observed over a period of about 15 years, for a total of 2,027 mayoral terms. But analysis on a restricted sample of towns, between 12,500 and 17,500 inhabitants, provides virtually the same results.

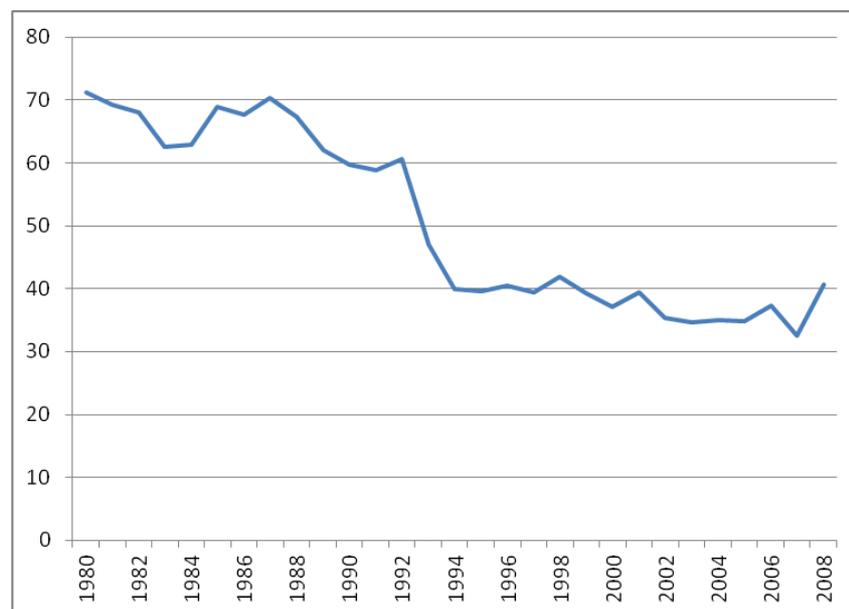
### 3. The funding reform

#### 3.1. Institutional details

The electoral reform was not the only reform introduced in Italy at the time. In the very same year, 1993, a new municipal property tax (ICI), on the value of all buildings and lands, was introduced (Law 504/1992), providing for the first time Italian cities with a large and autonomous source of tax revenue. The tax base was determined uniformly across the country (by using the national Cadastre), but municipalities were given some autonomy in the setting up of the tax rates and allowances<sup>10</sup>. Interestingly, the introduction of the new property tax was accompanied by an offsetting variation in grants, so that at the statutory minimal level of the new tax rate, each municipality had exactly the same resources both before and after the reform.

The reform had dramatic effects on the composition of municipal revenue. As figure 3 shows, on average, the share of central government grants on municipal total current revenue dropped by 20 points in the year of the introduction of ICI, from about 60% to 40%. However, the effect was differentiated across municipalities, depending on their tax bases. For instance, in 2000, municipalities in the richer north of the country were on average self-financed for about 70% of their budget, while in the poorer south grants covered on average about 60-70% of total municipal expenditures.

**Figure 3. Central government's transfers as a share of Municipal current revenues**



Source: Bordignon, Galamerio, Turati (2013)

<sup>10</sup> Tax rates could be set in an interval between 0.4% and 0.7%, differentiating the rates between residential housing and commercial buildings. Municipalities could also introduce an allowance for resident house owners. See Bordignon et al. (2003) and Bordignon et al. (2010).

### 3.2. The impact of the reform: The selection of politicians and the ex-post quality of policies

Thus, in 1993, Italian municipalities were affected by two simultaneous reforms; one (the electoral reform) that affected all municipalities in the same way, and a second, on the funding system, that affected municipalities very differently depending on their tax base. Intuitively, this may have had different effects on the selection of the local political class. In poor municipalities, where grants maintained a paramount role in the financing, the main task of a local politician was to guarantee that central money kept flowing to local communities. This may require different skills (e.g. strong political connections with national parties) than that of a good administrator of local matters. On the contrary, in richer municipalities, where most resources now came from the local communities, administrative skills should be more important. Rational voters should then vote for different types of politicians in the two cases, and anticipating voters' behavior, different types of politicians might decide to enter (or being selected to run by parties) in the local political arena. Building on this intuition, Bordignon, Gamalerio and Turati (2013) prove theoretically, in a carrier model of politics with self-selection of politicians, that a tax decentralization reform should have very different effects in municipalities characterized by different degree of vertical fiscal imbalance (VFI). It should increase voters' welfare in rich communities, as it also attracts politicians of higher administrative skills, while it might reduce welfare in poorer communities as the quality of politicians does not change and their skills become less useful to voters<sup>11</sup>.

To test these ideas, we then collect an extensive data set on the personal characteristics of the mayors of the main Italian cities<sup>12</sup>, as well as on other economic and political features of the municipalities in the ten years around the introduction of ICI (1988-1997). We consider only mayors because of the paramount role in municipal policy they assumed following the electoral reform. As a proxy for administrative skills we use the profession of the mayor before entering in policy. As for political skills, we consider the previous political experience of the candidate before becoming mayor (including all legislative and executive positions in all local governments, and in the Italian and European Parliament). Finally, we also provide a measure for the ex-post quality of policies, by looking at two indicators commonly used in the literature: the percentage of separate waste collection, and the probability of completing the term in office.

Descriptive evidence supporting our story is provided in Figure 4, where – distinguishing rich and poor municipalities according to median income – we plot the share of mayors coming from a profession characterized by administrative skills. While this share is quite constant for poor municipalities, it shows a clear increase for rich municipalities when the ICI reform kicks in. This descriptive evidence is confirmed by a more formal econometric analysis. Regression results using a difference-in-differences approach (where the 'treatment' is the change in the degree of VFI induced by the ICI reform), controlling for municipality and time fixed effects, and for a number of covariates, are strongly supportive of our theoretical hypotheses. The features of local politicians changed dramatically in richer municipalities after the reforms: a much larger percentage of mayors came from top administrative professions in the private sector, and these mayors were also less politically experienced. There is also some evidence that in these municipalities the higher quality of the local political class was also reflected in a higher quality of policies ex-post, and that this improvement was effectively due to a "selection effect" on local politicians and not to a stronger

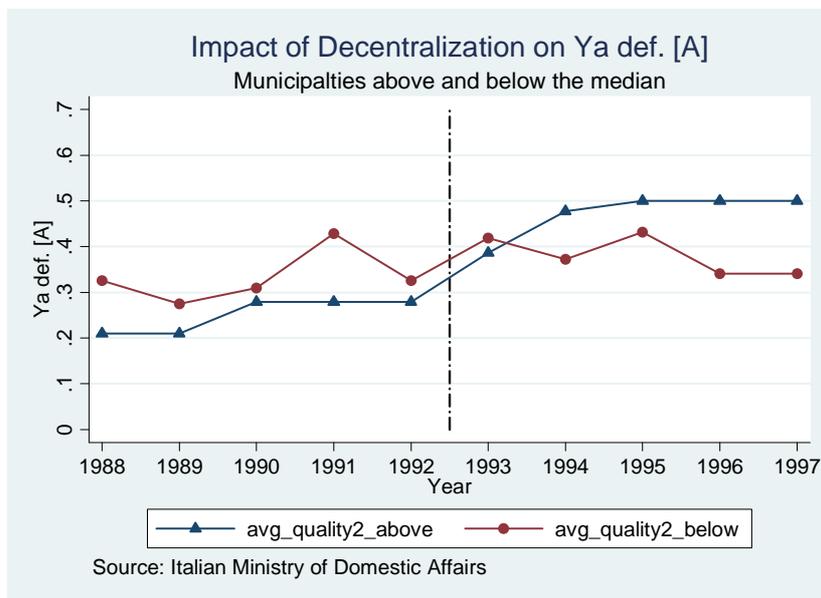
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<sup>11</sup>Implicitly, this might provide a different explanation for the common observation that decentralization usually works less well in local communities characterized by higher level of vertical fiscal imbalance. For instance, fly paper effects, financial instability and soft budget constraints problems, are typically shown to be more common in local governments that rely more on grants.

<sup>12</sup> The 90 cities that are also "Capoluogo di Provincia" in ordinary regions. Note that all these cities are beyond the 15,000 threshold, so that the electoral system is the same.

"disciplining effect" in richer communities<sup>13</sup>. On the contrary, we observe no or very little effects of the reforms in poorer communities, both in terms of the ex-ante skills of politicians and the ex-post quality of policy.

**Figure 4. Municipalities with mayors coming from a profession characterized by administrative skills (%)**



Source: Bordignon, Gamalerio and Turati (2013)

Results do not depend on differences in pre-treatment trends. Moreover, they appear to be robust to a number of alternative stories. In particular, they hold even controlling for the degree of competitiveness in the local electoral competition, for the endowment of “social capital” at the municipal level, for the higher costs of electoral campaigns in the richest cities, and for the changing political scenario in the mid Nineties Italy, with the birth of new political parties. More important, they hold even in the case of a different reform in the funding of Italian municipalities (the introduction of a municipal surcharge on the Personal Income Tax in 1999; see Bordignon and Piazza, 2010), which was implemented at given electoral rules, so suggesting that is indeed the funding reform, and not the electoral rule, that produces the different effect on the selection of the political class.

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<sup>13</sup> We use an institutional characteristics of the electoral reform, the introduction of a term limit on mayors, to discriminate between the two effects.

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