Party's Discipline and Political Dynasties

Revisiting the Role of Term Limits in Electoral Systems

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Abstract

We discuss the role of term limits in electoral systems by observing that elected officials may form a 'political chain' by which the position subject to the term limit provision is handed over to a peer member of the same party. The theoretical model allows for political chains and for the transmission of political expertise among parties' members. Using a panel of 1,203 Italian municipalities, from 1998 to 2006, we find a significant 'expertise' effect, by which first-term mayors, who already served as officials in the previous term, behave more efficiently than first-term mayors without any previous experience. We find no evidence of peculiar spending patterns by politicians at their last term of office.

Keywords: Electoral systems, Term limits, Local governments.

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1 Introduction

The debate on the use of term limitation for elected politicians presents two contrasting arguments. On the one hand, the advocates of term limit highlight several motivations for its introduction, especially for the risks connected to excessive long tenures. For instance, according to Reed *et al.* (1998), term limits should reduce public spending given the reduced time for the members of Parliament to make agreements with other members in order to promote their spending proposals, in exchange for the same (vote trading). For Dick and Lott (1993), instead, term limits implies less spending by restricting the time incumbents may use to build entry barriers enabling them to deviate from the median voter's preferences and to dedicate themselves to rent extraction without risking no re-election.

On the other hand, most of the theoretical literature stresses the problem of a reduction in political accountability affecting the term limit systems. As discussed since Barro (1970), in the context of a principal-agent model applied to politics, citizens judge incumbents' performances by voting and incumbents, in turn, modify their behavior in order to affect their reputation and, consequently, their probability to be re-elected. Eliminating the comparison with the electorate, as in the last term provided for law, gives politicians the incentive to move their decisions away from the median voter preferences, pointing instead to rent extraction activities. Several authors have studied the effect on policy choices induced by elections following this argument, e.g., Persson and Svensson (1989), Tabellini and Alesina (1990), Harrington (1993), Rogoff (1994), Besley and Case (1995), Coate and Morris (1993), Alt and Lassen (2003), Bordignon and Minelli (2001), Bordignon and Piazza (2010).

In this framework, Rogoff and Siebert (1988) suggest the presence of a political budget cycle, considering the possibility for politicians to choose between visible and non-visible public spending. As capital spending is more visible than current spending, politicians that want to be re-elected increase capital spending in electoral years; but this will not happen in the case of term limited politicians, which then persist in rent extraction activities even in electoral years.

However, this argument based on the opportunistic behavior of term limited politicians does not take into account the fact that all elected representatives operate via a system of political parties. In many cases, candidates running for office as successors of term limited politicians were already involved in the previous legislature elected officials of the same party. For municipal governments, a typical instance is that of a term-limited mayor who hands over the candidacy to her deputy, or to a peer party member belonging to the council. Is this a common practice? Does it bear an impact

on policy decisions in the different terms of office?

To address this question, we first build a stylized theoretical model of a municipal electoral process with a two-period term limit, in which the politicians of two competing parties may each form its own political chain, by which mayors at their second and last mandate hand over the candidacy for mayor to their deputy. Policy makers can direct their effort either on general interest policies (i.e., on public goods that benefit all residents in the municipality) or on special interest policies (i.e., on public goods that benefit only a subgroup of citizens), and expertise at policy making can be transmitted along the party line. We show how the term-limit provision affects the incentives of candidates and policy makers, both in the presence of a political chain between parties' members of the type described above and in its absence.[1] This allows us to derive some predictions that we take to data in the second part of the paper.

We consider a panel of about 1,200 Italian municipalities, from 1998 to 2006. Our main interest are the effects of term limit on spending decisions by municipal councils. In estimating these effects, we carefully control for the role of other political variables that may affect municipal spending patterns: electoral budget cycles, political alignment with upper layers of government from which the municipality cashes grants, closeness of the electoral contest, and voters' ideological hysteresis. We also control for standard demographic variables and for fiscal characteristics of the municipalities, like the amount of per capita transfers. We find evidence of a significant 'expertise' effect, by which the per capita expenditure of mayors at their first term of office, who served in the past as executive members of the city council, is lower than that of first-term mayors without any previous experience. Instead, there is no evidence of peculiar spending patterns by politicians at their last term of office.

The rest of the paper is organized as follows. Section 2 sets up a theoretical framework for the analysis of an electoral system with term limits and Section 3 characterizes the electoral process to provide some testable implications for the empirical analysis. The latter is presented in Section 4, focusing on a panel of Italian municipalities. Section 5 concludes.

2 The theoretical model

Consider a municipality in which, periodically, elections are called to appoint, under majority rule, the city council. The latter is composed of two politicians: the mayor

[1] Our theoretical analysis is limited to the description of the political process under a term limit clause. The comparison between electoral systems with, and without, term limits is beyond the scope of the present work.

and her deputy. There are two identical parties, each one appointing, at any given electoral stage, a ticket of two candidates, one for each position. The rules by which parties appoint their candidates are described in Section 3. For the analysis of the electoral game presented in this section, it is sufficient to refer to generic candidates, or policy makers, for each party. Let parties be indexed by κ, $\kappa = \alpha, \beta$, and denote with (K, k) the candidates for mayor and deputy, respectively, $(K, k) = (A, a)$ for party α, $(K, k) = (B, b)$ for party β.

The electorate is divided into two groups of voters, which are distinguished by some characteristics (e.g., type of occupation, age class, area of residence, and so on) that allow for targeting of public policy, as specified below. Let groups be indexed by j, $j = 1, 2$, and let $n_j \in (0, 1)$ be the mass of group j, with $\sum_{j=1}^{2} n_j = 1$.

2.1 Public policies

A public policy consists of two types of public goods: one that benefits uniformly the whole population, and one that can be targeted at the benefit of single electoral groups. We label the two types of interventions as 'general interest policy' and 'special interest policy', respectively. Expenditure devoted to general interest is equal to $\bar{Y} - E^{Kk}$, where $\bar{Y} > 0$ is the benchmark cost while $E^{Kk} \in \left[0, \bar{Y}\right)$ represents the amount of cost savings that can be achieved by policy makers (K, k). Expenditure devoted to special interest is denoted by $X^{Kk} \geq 0$. All variables are expressed in per capita terms. Total expenditure by policy makers (K, k) is thus equal to:

$$Y^{Kk} = (\bar{Y} - E^{Kk}) + X^{Kk}. \tag{1}$$

Let $\bar{W}$, $\bar{W} > \bar{Y}$, denote the money metric measure of the benefits of general public policy, and ϕ^{Kk}, $\phi^{Kk} \in (0, 1)$, that of the benefits of one unit of special public expenditure; both $\bar{W}$ and ϕ^{Kk} are exogenous parameters. Since we do not allow for public debt, tax revenues are equal to public expenditure. Moreover, we assume that taxation, contrary to public expenditure, cannot be targeted; hence, tax burdens are uniformly levied on citizens.[2] Under the given hypothesis, and assuming that special policies are directed only to subgroup 2 of the population (we show below that it always pays, in electoral terms, to target special interest policies to one group only), the individual welfare measures (benefits from public policy, less taxes paid) of citizens belonging to

[2] The analysis can be readily extended to consider the more general case in which also taxation can be differently targeted to subgroups of the population for electoral purposes.

the two electoral groups are equal to:

$$w_1^{Kk} = \bar{W} - Y^{Kk}, \tag{2}$$

$$w_2^{Kk} = \bar{W} + \frac{\phi^{Kk} X^{Kk}}{n_2} - Y^{Kk}. \tag{3}$$

Note that while cost savings on general expenditure are socially beneficial, since an increase in E^{Kk} increases citizens' welfare, special expenditure is socially wasteful, since an increase in X^{Kk}, given that $\phi^{Kk} < 1$, reduces aggregate welfare.[3] Note also that the parameter ϕ^{Kk} can be contingent on policy makers' type, as more experienced, or more 'socially connected' politicians, may be able to handle more efficiently (i.e., at a lower social cost) special policies than less experienced peers.

2.2 Voters

Voters are assumed to hold different ideological leanings in favor of parties and their candidates, which also differ across groups. Let θ be the ideological bias a voter has for the candidates of party α. We assume that, in group j, θ is uniformly distributed on the closed interval:

$$\left[-\frac{1}{2c_j}, \frac{1}{2c_j}\right], \qquad c_j > 0, \qquad j = 1, 2, \tag{4}$$

where c_j is an inverse measure of the dispersion of ideological leanings around zero; i.e., a direct measure of the relative mass of 'swing voters' in group j. Regarding ideological positions, we focus the analysis on the case in which one group of citizens, namely group 2, has a strictly larger mass of swing voters than the other one.

Assumption 1 $c_2 > c_1 > 0$.

In general, competing candidates are also not equally popular among voters. Denote with p be the relative popularity of the candidates of party α for the whole population, with p uniformly distributed on the closed interval:

$$\left[-\frac{1}{2\pi}, \frac{1}{2\pi}\right], \qquad \pi > 0. \tag{5}$$

Note that the distributions of θ and p are orthogonal to public policies, independent of candidates types, and i.i.d. in all electoral stages (the latter assumption implies that the popularity of candidates is not autocorrelated across subsequent elections). We describe how voters cast their votes below.

[3] The special expenditure of our framework resembles the type of 'pork-barrel' policies examined in some of the literature on redistributive policies under electoral incentives. See, e.g., Dixit and Londregan (1996, 1998) on the taxation side; Myerson (1993), Lizzeri and Persico (2001), and Crutzen and Sahuguet (2009) on the expenditure side.

2.3 The one-stage electoral game

The electoral term we analyze in this section represents the building block of the multi-stage electoral process we examine in Section 3.

We model electoral competition by means of a probabilistic voting framework.[4] In particular, a political term proceeds along four stages. In the first, the competing tickets of candidates, one for each party, simultaneously and noncooperatively announce their policy platforms. Within each party, the candidates in ticket behave cooperatively, pursuing the maximization of their expected joint payoff from winning the elections. At this stage, the candidates know how the ideological leanings are distributed within the pool of voters, but they do not know yet their relative popularity. In the second stage, the relative popularity of the two party's tickets becomes known to both voters and candidates. In the third stage, elections are held. Each voter compares the policy platforms and, taking into account her ideological views and the relative popularity of the parties, casts her vote for the preferred pair of candidates. Finally, in the fourth stage, the elected candidates take office and, as policy makers, implement the policy announced during the electoral campaign.

Note that we assume, as it is customary in one-period electoral models, that policy announcements are credible, so that voters take them at face value when casting their votes. That is, we assume that candidates can make *ex ante*, before the elections, a credible commitment to implement *ex post*, as policy makers, the policy announced during the electoral campaign. In Section 3, where we build a multi-period electoral game, we focus on policy announcements that, under mild assumptions, can be credibly sustained in equilibrium. Hence, in this section the game is solved backward from stage three to stage one, while stage four, the policy implementation stage, is examined in Section 3.

At stage three, given the relative popularity index p of party α, and the candidates' policy announcements $(\bar{Y} - E^{Kk}, X^{Kk})$, $(Kk) = (Aa), (Bb)$, a voter belonging to group j, with ideology θ, casts her vote for party α if and only if $w_j^{Aa} + \theta + p > w_j^{Bb}$. The latter inequality can be written as $\theta > w_j^{Bb} - w_j^{Aa} - p \equiv \theta_j$, showing that only the voters with a sufficiently high ideological bias for party α vote for it.

Given the assumed distributions of θ in the two groups of voters, for given platforms $(\bar{Y} - E^{Kk}, X^{Kk})$, $(Kk) = (Aa), (Bb)$, and popularity index p, the vote share of party

[4] We follow the standard textbook exposition of the probabilistic voting model (see, e.g., Persson and Tabellini, 2000, chapter 3).

α is equal to:

$$V^{Aa} = \sum_{j=1}^{2} \left(\frac{1}{2c_j} - \theta_j \right) c_j n_j = \sum_{j=1}^{2} \left(\frac{1}{2c_j} + w_j^{Aa} - w_j^{Bb} + p \right) c_j n_j.$$

In computing the vote share V^{Aa}, we assume that the model's parameters are such that the thresholds θ_j, $j = 1, 2$, lie within the interval of the respective distribution for θ shown in Eq. (4).

Party α wins the election if its vote share V^{Aa} is above 50%, an event occurring whenever the popularity index p is such that $V^{Aa} > \frac{1}{2}$. If $V^{Aa} = \frac{1}{2}$, we assume that the winning party is chosen randomly, with 50% probability for each party. By solving the inequality $V^{Aa} \geq \frac{1}{2}$ with respect to p we get:

$$p \geq \frac{1}{\bar{c}} \sum_{j=1}^{2} \left(w_j^{Bb} - w_j^{Aa} \right) c_j n_j \equiv \tilde{p}, \tag{6}$$

where $\bar{c} = \sum_{j=1}^{2} c_j n_j$, and, using Eqs. (2)-(3), it is:

$$\tilde{p} = E^{Bb} - E^{Aa} + \frac{(\phi^{Bb} c_2 - \bar{c}) X^{Bb} - (\phi^{Aa} c_2 - \bar{c}) X^{Aa}}{\bar{c}}. \tag{7}$$

Given the assumed distribution of p, the probability that party α wins the elections, as a function of the announced policy platforms, is then equal to:

$$\Pr \left[V^{Aa} \geq \frac{1}{2} \right] \equiv P^{Aa} = \frac{1}{2} - \pi \tilde{p}, \tag{8}$$

while party β succeeds with probability $P^{Bb} = 1 - P^{Aa}$. In computing the probability P^{Aa}, we assume that the model's parameters are such that the threshold $\tilde{p}$ lies within the interval of the distribution for p given in Eq. (5).

Eqs. (7) and (8) show that general interest policies always pay in electoral terms, as the winning probability P^{Kk} is increasing in E^{Kk}. Instead, special interest policies are profitable in terms of electoral prospects only if their social cost is not too high: P^{Kk} is increasing in X^{Kk} if and only if $\phi^{Kk} c_2 > \bar{c}$, which implies, since $c_2 > \bar{c}$ and $\phi^{Kk} < 1$ by assumption, that ϕ^{Kk} must be greater than the threshold $c_2/\bar{c} < 1$. This also shows that special policies can be useful for reaping electoral gains only by targeting the 'high-clout' group 2, as it never pays to target the 'low-clout' group 1, for which the inequality $\phi^{Kk} c_1 < \bar{c}$ is true by assumption. We maintain throughout that special interest policies in favor of group 2 are profitable in terms of electoral prospects for both tickets of policy makers.

Assumption 2 *$\phi^{Kk} c_2 > \bar{c}$, for $(Kk) = (Aa), (Bb)$.*

At stage two of the electoral game, the popularity index p of party α, relative to β, is revealed to everybody. At stage one, each pair of candidates announces a policy platform, with the purpose of maximizing its expected payoff of winning the elections. Let (m, d), $m \geq d > 0$, be the (exogenously given) rents that a mayor and her deputy, respectively, can enjoy while in power for one term of office. From the perspective of the current electoral term, these are *current rents*, i.e., those that can be gained by winning the current elections and then implementing the announced policy platforms (more on this in Section 3). However, candidates at current elections can also expect to run again as candidates at subsequent electoral terms. Denote with $M^K \geq 0$, $D^k \geq 0$, the expected present values of *future rents* for a mayor K and her deputy k, respectively. Both current and future rents are taken as given by candidates when deciding their electoral policy platform. However, while current rents are exogenously given, future rents are endogenously determined as part of the multistage electoral game we build in Section 3.

Public policies are costly to implement, as they require effort by policy makers. Specifically, we assume that the money metric measure, L^{Kk}, of the disutility ensuing from carrying out policy $(\bar{Y} - E^{Kk}, X^{Kk})$ is equal to:

$$L^{Kk} = \omega \left(\frac{E^{Kk}}{\psi^{Kk}} + \frac{X^{Kk}}{\xi} \right). \tag{9}$$

In Eq. (9), E^{Kk}/ψ^{Kk} and X^{Kk}/ξ are the amounts of effort required to implement the general policy E^{Kk} and the special policy X^{Kk}, respectively. The parameters $\psi^{Kk} > 0$ and $\xi > 0$ represent policy makers' marginal productivities, or skills, in pursuing the corresponding types of policies. Finally, the parameter $\omega > 0$ represents the money metric measure of the marginal disutility of effort. Note that the productivity index ψ^{Kk} can differ across pairs of policy makers, as different politicians may have different skills at achieving cost savings in the provision of general public goods, say because of different innate abilities or acquired experience.

We are now ready to define the objective function of candidates running for office. Let $R^K = m + M^K$, $R^k = d + D^k$, $R^{Kk} = R^K + R^k$. The objective function of candidates (Kk) of party κ is equal to the expected joint payoff of winning the current electoral term:

$$U^{Kk} = P^{Kk}(R^{Kk} - L^{Kk}). \tag{10}$$

In the objective function (10), both the probability of winning the elections and the disutility of policy implementation are increasing functions of the policy instruments (E^{Kk}, X^{Kk}), while current and future rents R^{Kk} are taken as given by candidates.

Each pair of candidates thus simultaneously and independently maximizes its objective function with respect to its policy instruments (E^{Kk}, X^{Kk}), taking as given the other candidates' policy platform. The following Proposition characterizes two types of Nash equilibria in policy announcements: one in which the electoral competition focuses only on general interest policies (*general policies regime*), and one in which it focuses only on special interest policies (*special policies regime*).

Proposition 1 *Under Assumptions 1 and 2, in the first stage of the electoral game, the Nash equilibrium in policy announcements is as follows:*

If $\psi^{Kk} > \xi(\phi^{Kk}c_2 - \bar{c})/\bar{c}$ *and* $2\pi\psi^{Kk}R^{Kk} > \omega$, $Kk = Aa, Bb$, *then both candidates focus on general interest policies, with platforms* $(\bar{Y} - \tilde{E}^{Kk}, \tilde{X}^{Kk})$ *equal to:*

$$\tilde{E}^{Aa} = \frac{2\psi^{Aa}R^{Aa} + \psi^{Bb}R^{Bb}}{3\omega} - \frac{1}{2\pi} > 0, \qquad \tilde{X}^{Aa} = 0, \tag{11}$$

and probability of winning the elections equal to:

$$\tilde{P}^{Aa} = \frac{1}{2} + \frac{\pi(\psi^{Aa}R^{Aa} - \psi^{Bb}R^{Bb})}{3\omega}, \tag{12}$$

for candidates Aa; similarly for candidates Bb.

If $\psi^{Kk} < \xi(\phi^{Kk}c_2 - \bar{c})/\bar{c}$ *and* $2\pi\xi(\phi^{Kk}c_2 - \bar{c})R^{Kk} > \omega\bar{c}$, $Kk = Aa, Bb$, *then both candidates focus on special interest policies, with platforms* $(\bar{Y} - \tilde{E}^{Kk}, \tilde{X}^{Kk})$ *equal to:*

$$\tilde{X}^{Aa} = \frac{2\xi R^{Aa}}{3\omega} + \frac{\xi(\phi^{Bb}c_2 - \bar{c})R^{Bb}}{3\omega(\phi^{Aa}c_2 - \bar{c})} - \frac{\bar{c}}{2\pi(\phi^{Aa}c_2 - \bar{c})} > 0, \qquad \tilde{E}^{Aa} = 0, \tag{13}$$

and probability of winning the elections equal to:

$$\tilde{P}^{Aa} = \frac{1}{2} + \frac{\pi\xi\left[(\phi^{Aa}c_2 - \bar{c})R^{Aa} - (\phi^{Bb}c_2 - \bar{c})R^{Bb}\right]}{3\omega\bar{c}}, \tag{14}$$

for candidates Aa; similarly for candidates Bb.

Proof. Consider the total differential of Eq. (10):

$$\mathrm{d}U^{Kk} = (R^{Kk} - L^{Kk})\,\mathrm{d}P^{Kk} - P^{Kk}\,\mathrm{d}L^{Kk},$$

where, by linearity of P^{Kk} and L^{Kk} in (E^{Kk}, X^{Kk}), it is:

$$\mathrm{d}P^{Kk} = \pi\,\mathrm{d}E^{Kk} + \frac{\pi(\phi^{Kk}c_2 - \bar{c})}{\bar{c}}\,\mathrm{d}X^{Kk}, \qquad \mathrm{d}L^{Kk} = \frac{\omega}{\psi^{Kk}}\,\mathrm{d}E^{Kk} + \frac{\omega}{\xi}\,\mathrm{d}X^{Kk}.$$

Setting $\mathrm{d}L^{Kk} = 0$, solving for $\mathrm{d}X^{Kk}$, and substituting into $\mathrm{d}P^{Kk}$, one gets:

$$\mathrm{d}P^{Kk}\Big|_{\mathrm{d}L^{Kk}=0} = \pi\left(1 - \frac{\xi(\phi^{Kk}c_2 - \bar{c})/\bar{c}}{\psi^{Kk}}\right)\mathrm{d}E^{Kk}. \tag{15}$$

Recall that $E^{Kk} \geq 0$, $X^{Kk} \geq 0$. If $\psi^{Kk} > \xi(\phi^{Kk}c_2 - \bar{c})/\bar{c}$, then Eq. (15) implies that the objective function U^{Kk} must be maximized with respect to E^{Kk} for $X^{Kk} = 0$ (for given X^{Kk}, U^{Kk} is strictly concave in E^{Kk}). The opposite if $\psi^{Kk} < \xi(\phi^{Kk}c_2 - \bar{c})/\bar{c}$: U^{Kk} must be maximized with respect to X^{Kk} for $E^{Kk} = 0$ (for given E^{Kk}, under Assumption 2, U^{Kk} is strictly concave in X^{Kk}).

Assume that $\psi^{Kk} > \xi(\phi^{Kk}c_2 - \bar{c})/\bar{c}$ for $Kk = Aa, Bb$. Consider $Kk = Aa$. From the first order condition for maximizing Eq. (10) with respect to E^{Aa} we get the best response function:

$$\hat{E}^{Aa}(E^{Bb)} = \frac{2\pi\psi^{Aa}R^{Aa} - \omega}{4\pi\omega} + \frac{E^{Bb}}{2}.$$

A similar expression is obtained for $Kk = Bb$. These best response functions are linear, upward sloping, with product of the slope coefficients that is less than unity. Hence, provided that their intercept terms are both strictly positive, i.e., $2\pi\psi^{Kk}R^{Kk} > \omega$ for $Kk = Aa, Bb$, there exists a unique, and stable, Nash equilibrium $(\tilde{E}^{Aa}, \tilde{E}^{Bb})$, $\tilde{E}^{Aa} > 0$, $\tilde{E}^{Bb} > 0$, as defined in Eq. (11). The equilibrium probability in Eq. (12) is obtained by substituting $(\tilde{E}^{Aa}, \tilde{E}^{Bb})$ into Eq. (8) for $X^{Aa} = X^{Bb} = 0$.

Assume that $\psi^{Kk} < \xi(\phi^{Kk}c_2 - \bar{c})/\bar{c}$ for $Kk = Aa, Bb$. Consider $Kk = Aa$. From the first order condition for maximizing Eq. (10) with respect to X^{Aa} we get the best response function:

$$\hat{X}^{Aa}(X^{Bb}) = \frac{\xi R^{Aa}}{2\omega} - \frac{\bar{c}}{4\pi(\phi^{Aa}c_2 - \bar{c})} + \frac{\phi^{Bb}c_2 - \bar{c}}{\phi^{Aa}c_2 - \bar{c}}\frac{X^{Bb}}{2}.$$

A similar expression is obtained for $Kk = Bb$. These best response functions are linear, upward sloping, with product of the slope coefficients that is less than unity. Hence, provided that their intercept terms are both strictly positive, i.e., $2\pi\xi(\phi^{Kk}c_2 - \bar{c})R^{Kk} > \omega\bar{c}$ for $Kk = Aa, Bb$, there exists a unique, and stable, Nash equilibrium $(\tilde{X}^{Aa}, \tilde{X}^{Bb})$, $\tilde{X}^{Aa} > 0$, $\tilde{X}^{Bb} > 0$, as defined in Eq. (13). The equilibrium probability in Eq. (14) is obtained by substituting $(\tilde{X}^{Aa}, \tilde{X}^{Bb})$ into Eq. (8) for $E^{Aa} = E^{Bb} = 0$. ■

Proposition 1 shows that policy makers direct all their efforts on the type of policy that is more profitable in terms of expected payoffs: if $\psi^{Kk} > \xi(\phi^{Kk}c_2 - \bar{c})/\bar{c}$, it means that is it more productive, in terms of effort and electoral outcomes, to focus on general interest policies; otherwise it is better to focus on special interest policies.[5]

[5] For simplicity, we do not consider, in Proposition 1, the policy regime in which a pair of candidates focuses on general policies while the other one focuses on special policies. Also note that the constraint $E^{Kk} < \bar{Y}$ is not considered, since the latter can be readily accomodated by setting a high enough value for $\bar{Y}$. Also, the special case in which $\psi^{Kk} = \xi(\phi^{Kk}c_2 - \bar{c})/\bar{c}$ is ignored, which implies that E^{Kk} and X^{Kk} are equivalent instruments.

The policy regimes characterized in Proposition 1 bear different implications as for how policy makers' skills and political rents affect public expenditure. To see this, consider the general policies regime and suppose that $\psi^{Aa} > \psi^{Bb}$, i.e., candidates Aa are more productive than candidates Bb at achieving cost savings in public goods provision, and/or that $R^{Aa} > R^{Bb}$, i.e., candidates Aa have better prospects than Bb in terms of political rents. Then Eqs. (11)-(12) show that candidates Aa campaign for *lower* public expenditure ($\tilde{Y}^{Aa} < \tilde{Y}^{Bb}$, since $\tilde{E}^{Aa} > \tilde{E}^{Bb} > 0$, $\tilde{X}^{Aa} = \tilde{X}^{Bb} = 0$), and have better chances of winning the elections ($\tilde{P}^{Aa} > .5$), than candidates Bb.

Consider now the special interest policy regime and suppose that $\phi^{Aa} > \phi^{Bb}$, i.e., candidates Aa have better skills than candidates Bb at targeting group 2 with special transfers, and/or that $R^{Aa} > R^{Bb}$. Then Eqs. (13)-(14) show that candidates Aa campaign for *higher* public expenditure ($\tilde{Y}^{Aa} > \tilde{Y}^{Bb}$, since $\tilde{X}^{Aa} > \tilde{X}^{Bb} > 0$, $\tilde{E}^{Aa} = \tilde{E}^{Bb} = 0$), and have better chances of winning the elections ($\tilde{P}^{Aa} > .5$), than Bb.

In characterizing the solution of the electoral game in Proposition 1, we assumed that, within each party, the candidates in ticket cooperate to maximize their aggregate expected payoff. We now turn to the determination of individual payoffs. By substituting the equilibrium policy platforms $(\tilde{E}^{Kk}, \tilde{X}^{Kk})$ into Eq. (9), we get $\tilde{L}^{Kk}$, the total disutility, in money metric terms, associated to policy implementation. We assume that while political rents are non-transferable between the two politicians in ticket,[6] they can strike a binding agreement on the sharing of effort. Specifically, we assume that they agree to split total effort disutility $\tilde{L}^{Kk}$ into individual disutility levels (L^K, L^k) so as to equalize their individual expected payoffs.[7] That is, (L^K, L^k) are determined by solving the two-equation system $\tilde{L}^{Kk} = L^K + L^k$, $R^K - L^K = R^k - L^k$, that gives:

$$\tilde{L}^K = \frac{\tilde{L}^{Kk} + R^K - R^k}{2}, \qquad \tilde{L}^k = \frac{\tilde{L}^{Kk} + R^k - R^K}{2}. \tag{16}$$

We assume throughout that $\tilde{L}^K \geq 0$, $\tilde{L}^k \geq 0$.

3 Electoral competition with term limits

In this section, we use the one-period electoral game of the previous section as a building block of a multi-stage electoral game that is tailored to fit the municipal electoral system in effect in Italy over the period covered by our empirical analysis. In particular, the key feature of interest for our purposes is the rule that limits mayors to serve in office

[6] Instead, Grossman and Helpman (2005) assume that policy makers of the same party can transfer political rents among themselves.

[7] Clearly, other types of sharing arrangements are possible. Also, it is possible to model effort sharing as a bargaining game.

for no more than two consecutive terms, whereas no restrictions apply to other elected officials.

The actors of the electoral game are the voters, the politicians, and the political parties. During the elections, voters and candidates behave as described in the previous section: the competing candidates announce their policy platforms, and the voters cast their vote for their preferred candidates. In this section, we focus on the policy implementation stage, i.e., on policy decisions taken by the winning candidates after the elections, and on the political contestants' appointment stage, i.e., on the designation of candidates for office by political parties. Note, however, that we do not model political parties as genuine strategic actors of the policy game. More simply, we let them 'mechanically' apply some exogenously given protocols for appointing their candidates, the main purpose of which is to provide adequate incentives to policy makers to carry out their electoral commitments.

3.1 The multi-stage electoral game

Suppose, to begin with, that mayor 1 and deputy 2 of party β won the last elections and are currently serving their first term of office; the electoral rule allows mayor 1, as well as her deputy 2, to run for a second mandate at the upcoming elections (we use arabic numbers to tag the identity of politicians within their party; also, there is no loss of generality in considering party β, given the assumed symmetry between parties). When serving office, these policy makers have two options: they can fully implement the electoral platform with which they won the elections, or they can shift to a different policy, say one that requires less effort to be implemented. If they take the first option, then they are appointed again by their party as candidates for the upcoming electoral term; otherwise, their political career is over, as their party appoints a new ticket of candidates. For the time being, let us just assume that the policy makers choose the first option, and are thus appointed as candidates for a second term of office; we characterize below the conditions that must hold for this to be an optimal choice for policy makers. As for the opposition party α, since its candidates were defeated at the previous elections, it designates a pair of first-time, or 'fresh', candidates for the upcoming elections.

The upcoming electoral term described above is represented by node 1 of the game tree shown in Figure 1. The candidates appointed by party β are denoted by $I_1^\beta i_2^\beta$, where I_1^β stands for 'incumbent mayor 1 of party β', and i_2^β for 'incumbent deputy 2 of party β'. The candidates of party α are denoted by $F_1^\alpha f_2^\alpha$, where F_1^α stands for 'fresh mayor 1 of party α', and f_2^α for 'fresh deputy 2 of party α'.

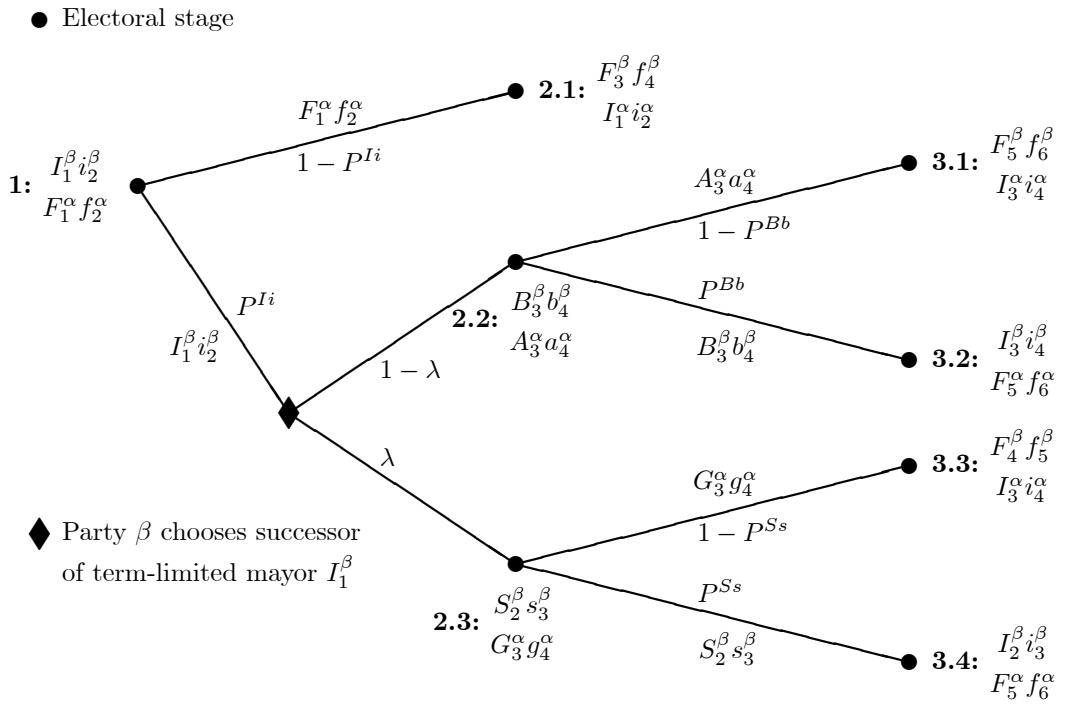

Figure 1: The multi-stage electoral game

Suppose now that the elections are held at stage 1. If the winners are candidates $F_1^\alpha f_2^\alpha$, then they are re-appointed (assuming, again, that they fully implement their electoral platforms while in office) as candidates by their party α for the subsequent electoral stage 2.1, where they are now denoted by $I_1^\alpha i_2^\alpha$, as they are the incumbent candidates. Their opponents are the fresh candidates $F_3^\beta f_4^\beta$ appointed by party β to replace the defeated candidates $I_1^\beta i_2^\beta$. If, instead, the winners at stage 1 are the incumbent candidates $I_1^\beta i_2^\beta$, then party β cannot re-appoint its mayor 1 for the subsequent elections, because of the two-term limit clause. Two options are then available to party β. One is to appoint a pair of fresh candidates $B_3^\beta b_4^\beta$ that compete at the electoral stage 2.2 with a ticket of fresh candidates $A_3^\beta a_4^\beta$ appointed by party α in replacement of ticket $F_1^\alpha f_2^\alpha$ that lost the elections at stage 1. The other option available to party β is to let its incumbent deputy i_2^β, who does not face a term limit, to take over the leadership and run as a candidate for mayor in ticket with a fresh deputy-candidate. This leads to the electoral stage 2.3, where party β's candidates are denoted by S_2^β for the former deputy now 'promoted' to mayor-candidate, and by s_3^β for the first-time deputy-candidate. The fresh candidates appointed by party α to compete against $S_2^\beta s_3^\beta$ are denoted by $G_3^\alpha g_4^\alpha$; they replace the ticket $F_1^\alpha f_2^\alpha$ that lost the elections at stage 1. As for the choice between appointing candidates $S_2^\beta s_3^\beta$ or candidates $B_3^\beta b_4^\beta$, we assume that the party takes the decision at random, with exogenous probability $\lambda \in [0, 1]$ of

choosing candidates $S_2^\beta s_3^\beta$, and $1-\lambda$ of choosing $B_3^\beta b_4^\beta$.

To complete the description of the game tree in Figure 1, we examine the possible outcomes at the electoral stages 2.2 and 2.3. If the winners at stage 2.2 are the candidates of party α (respectively, β), then the game moves to stage 3.1 (respectively, 3.2), where the incumbent candidates belong to party α (respectively, β). Similarly for the electoral stage 2.3.

3.2 Equilibrium of the multi-stage electoral game

The game tree represented in Figure 1 completetly describes of the multi-stage electoral process, provided that the five end-nodes 2.1, 3.1, 3.2, 3.3 and 3.4 are identical to the initial node 1. For this to be the case, we introduce a set of hypothesis regarding the types of candidates at the disposal of political parties.

Recall, from Section 2, that a pair Kk of policy makers in ticket is characterized by two types of skills: the ability to achieve cost savings on general policies, represented by the productivity parameter ψ^{Kk}, and the ability to target special policies to the high clout group of voters, represented by the efficiency parameter ϕ^{Kk}. We assume that these skill parameters are the only source of heterogeneity among policy makers. Two pairs of candidates, Kk and $K'k'$, are thus identical if $\psi^{Kk} = \psi^{K'k'}$, $\phi^{Kk} = \phi^{K'k'}$. We also assume that skills can improve with experience in office.

Assumption 3 (i) *Each one of the two identical parties has two pools of identical potential candidates, one for mayorship and one for deputyship. When a party has to appoint a fresh ticket of candidates at a given electoral stage, it draws one candidate for each position from the respective pools. The combined skills* (ψ^{Kk}, ϕ^{Kk}) *of a pair of fresh candidates* Kk, $Kk = Ff, Bb, Aa, Gg$, *are equal to* $\psi^{Kk} = \bar{\psi}$, $\phi^{Kk} = \bar{\phi}$. (ii) *Second-term incumbent tickets* Ii *are identical, irrespective of whether or not its mayor served previously as a deputy.* (iii) *Skills can improve with experience in office: the combined skills* (ψ^{Ii}, ϕ^{Ii}) *of second-term incumbents* Ii, *and the combined skills* (ψ^{Ss}, ϕ^{Ss}) *of first-term tickets* Ss *composed of a former deputy running for mayorship and a fresh candidate for deputyship, are such that:*

$$\psi^{Ii} \geq \psi^{Ss} \geq \psi^{Kk} = \bar{\psi}, \qquad \phi^{Ii} \geq \phi^{Ss} \geq \phi^{Kk} = \bar{\phi}, \qquad Kk = Ff, Bb, Aa, Gg. \quad (17)$$

Assumption 3 allows us to drop the party's superscript, as well as the identity subscript, from candidates' tickets, and focus on six representative types of tickets: four identical fresh tickets, Ff, Bb, Aa and Gg, one second-term ticket Ii, and one first-term ticket Ss. Because of acquired experience during the first term of office, the incumbent tickets Ii can have better skills at policy making than first-term politicians. Also the first-term

tickets Ss can have better skills (though no better than Ii), because of the experience acquired by the candidate for mayorship during previous terms of office as a deputy. Note, in particular, that we also assume that second term tickets with a mayor who did not previously serve as a deputy, such as ticket $I_3^{\alpha} i_4^{\alpha}$ at node 3.3 of the game tree, are identical to tickets with a mayor with experience as deputy, such as ticket $I_2^{\beta} i_3^{\beta}$ at node 3.4.

Under Assumption 3, the five electoral terms at nodes 2.1, 3.1, 3.2, 3.3 and 3.4 are identical to the electoral term at node 1 of the game tree in Figure 1. Hence the multi-stage electoral game presents three types of electoral contests: Ii versus Ff, Bb versus Aa, and Ss versus Gg. Although this allows for a simple solution of the electoral game, the latter clearly admits several types of equilibria. We thus restrict our attention to one class of equilibrium outcomes, namely that in which at each electoral node the one-stage Nash equilibrium is the one characterized in Proposition 1, where both candidates in ticket focus either on general policies or on special policies, and where all policy makers exert positive levels of effort.

Assumption 4 *The Nash equilibrium of each electoral stage of the multi-stage electoral game is as defined in Proposition 1.*

Among the possible equilibrium paths, we also focus on those in which policy makers, once in office, have adequate incentives to fully implement their electoral platforms.

To define the conditions for policy implementation, consider an electoral term of type Bb versus Aa (like stage 2.2 in Figure 1), and suppose that candidates Aa win the elections. Once in office, if the politicians implement their electoral platform, then their current payoffs are $m - \tilde{L}^A$ for mayor A and $d - \tilde{L}^a$ for deputy a; i.e., the current political rent less the disutility of the effort required for policy implementation they agreed to undertake. Moreover, through policy implementation they gain re-appointment for a second electoral term, which means expected future rents of value M^A for policy maker A and D^a for a. Hence, the total payoffs from policy implementation are equal to $m - \tilde{L}^A + M^A$ and $d - \tilde{L}^a + D^a$. The alternative option at their disposal is to shirk on effort; in particular, zero effort. They can be tempted by this option to avoid the disutility of effort. However, this option is also costly for two reasons. First, they miss the opportunity to run for a second term since their party denies them re-appointment; hence, they lose future rents. Second, they pay some reputational costs in the present, so that their current political rents are equal to $(1 - \delta)m$ for A and $(1 - \delta)d$ for B, where $\delta \in (0, 1)$ is a parameter expressing the reputation cost as a fraction of current political rents. Summing up, the conditions that must hold for policy makers Aa to have incentives to implement the policy platforms with which they won the elections

are:

$$m - \tilde{L}^A + M^A \geq (1-\delta)m \quad \Rightarrow \quad \delta m + M^A \geq \tilde{L}^A,$$
$$d - \tilde{L}^a + D^a \geq (1-\delta)d, \quad \Rightarrow \quad \delta d + D^a \geq \tilde{L}^a.$$

By simmetry, similar conditions apply to policy makers Bb of a type 'Aa versus Bb' electoral term, as well as to the pairs of policy makers involved in the other two types of electoral contests, 'Ii versus Ff' and 'Ss versus Gg'.

The final step is to characterize future rents as the 'continuation values' of the game tree in Figure 1. Let $\rho \in (0,1]$ be the one-period discount factor, assumed identical to all types of policy makers. Assume also that policy makers are risk neutral and that when indifferent between shirking and not shirking on effort they decide not to shirk.

To illustrate, consider, again, policy makers Aa. If they gain re-appointment for the upcoming elections (stage 3.2) by implementing the platform with which they won the previous elections (stage 2.2), then they assume the role of type Ii candidates, opposed to type Ff candidates. Hence, the expected future rents for policy makers Aa are equal to $M^A = \rho P^{Ii}\left\{m - \tilde{L}^I + M^I\right\}$ and $D^a = \rho P^{Ii}\left\{d - \tilde{L}^i + D^i\right\}$, respectively. By symmetry, future rents are similarly defined for policy makers of type Bb. The same for tickets Ss, Gg and Ff, since gaining re-appointment puts them in the role of second-term incumbents Ii.

Finally, consider policy makers of type Ii. The two-term limit rule implies that future political rents are zero for mayor I; i.e., $M^I = 0$.[8] As for deputy i, if she gains re-appointment for the upcoming elections (stage 2.3) by implementing the platform with which she won the previous elections in ticket with I (stage 1), then with probability λ she assumes the role of a type S candidate in ticket with a type s candidate, opposed to type Gg candidates; with probability $1-\lambda$ she is not appointed. Hence the expected future rents are equal to $D^i = \rho\lambda P^{Ss}\left\{m - \tilde{L}^S + M^S\right\}$.

We first formally recap the hypothesis introduced above, and then define the equilibrium of the multi-stage electoral game illustrated above.

Assumption 5 *First-term policy makers of type Ff, Bb, Aa, Ss and Gg, who win the elections and then fully implement, once in office, their electoral platforms, are re-appointed by their party for the successive electoral term. Otherwise, their political career is over. As for second-term policy makers of type Ii, the career of mayor I*

[8] It often occurs in real politics that the political carrer at the municipal level opens the doors to appointments at higher levels political institutions (say, at the regional of national level). This situation can be acknowledged in our model by assuming that correct policy implementation brings exogenous future rents of amount $M^I = \bar{M}^I > 0$ to second-term mayors.

is over by the electoral law, whereas the deputy i gains appointment for mayorship in ticket with a fresh candidate s for the successive electoral term with probability λ, unless the electoral platform with which she won the last elections in ticket with I is not fully implemented, in which case she her political career is over. Incomplete implementation of electoral platforms also determines a reputation cost equal to the share $\delta \in (0,1)$ of current political rents. Policy makers are risk neutral and discount future rents at the one-period discount rate $\rho \in (0,1]$.

Definition 1 *Assume A.3, A.4 and A.5. An equilibrium of the multi-stage electoral game with positive effort by all types of policy makers, and full implementation of electoral platforms, is characterized by future political rents $(M^{I*}, D^{i*}, M^{K*}, D^{k*})$, $K = F, S, G, A, B$, $k = f, s, g, a, b$, such that:*

$$
\begin{aligned}
&M^{I*} = 0, \quad \delta m \geq \tilde{L}^{I*} \geq 0, \\
&D^{i*} = \lambda \rho P^{Ss*} \left\{ m + M^{S*} - \tilde{L}^{S*} \right\} \geq 0, \quad \delta d + D^{i*} \geq \tilde{L}^{i*} \geq 0, \\
&M^{K*} = \rho P^{Ii*} \left\{ m - \tilde{L}^{I*} \right\} \geq 0, \quad \delta m + M^{K*} \geq \tilde{L}^{K*} \geq 0, \quad K = F, S, G, A, B, \\
&D^{k*} = \rho P^{Ii*} \left\{ d + D^{i*} - \tilde{L}^{i*} \right\} \geq 0, \quad \delta d + D^{k*} \geq \tilde{L}^{k*} \geq 0, \quad k = f, s, g, a, b.
\end{aligned}
$$

In order to derive testable predictions for the empirical analysis, in the next subsection we examine the features of the equilibrium formalized in Definition 1 by means of numerical simulations.[9]

3.3 Policy outcomes and testable predictions

In our dataset, that we describe in Section 4.2 below, municipalities are grouped into four categories: (i) municipalities whose mayor is at her second, and last, term of office, and where the incumbent party appoints a member of the council for mayorship for the upcoming elections,[10] (ii) municipalities whose mayor is at her second term of office but where the incumbent party appoints for mayorship a candidate not belonging to the outgoing city council, (iii) municipalities whose mayor is at her first term of office, after serving as a deputy or a council member in the previous term, (iv) municipalities not belonging to the previous categories (the residual group).

[9] An analytical characterization of the equilibrium in Definition 1 is easily obtained in the special case in which all types of candidates have identical skills, current rents (m, d) are equal for mayors and deputies, and $\lambda = 0$. Details are avaliable upon request.

[10] The theoretical model considers a city council composed of two politicians, a mayor and a deputy, which is clearly a simplification. In our dataset, candidates for mayorship appointed by the incumbent party as successors of a term-limited mayor can be either deputies or other city council members of the incumbent party.

regime	general interest policies						special interest policies					
skills	homog.		heterog. I		heterog. II		homog.		heterog. I		heterog. II	
λ	.2	.8	.2	.8	.2	.8	.2	.8	.2	.8	.2	.8
$\tilde{Y}^{Ii*}$	.868	.812	.848	.780	.828	.747	1.330	1.433	1.341	1.462	1.346	1.479
$\tilde{Y}^{Ss*}$	.754	.736	.763	.742	.773	.748	1.540	1.572	1.515	1.558	1.499	1.550
$\tilde{Y}^{Kk*}$	.785	.761	.822	.784	.862	.809	1.482	1.528	1.439	1.543	1.392	1.549

Y^{Kk*}: weighted average of Y^{Aa*}, Y^{Bb*}, Y^{Ff*}, Y^{Gg*} (see Appendix A).

Table 1: Public expenditure in the multi-stage electoral game.

In terms of our theoretical model, group (i) corresponds to policy makers of type Ii, where the probability λ that i is appointed for mayorship is close or equal to one; group (ii) corresponds to policy makers of type Ii, but where the probability λ is close or equal to zero; group (iii) corresponds to policy makers of type Ss; finally, the residual group (iv) corresponds to all other types of policy makers that are present in the model, i.e., Aa, Bb, Ff and Gg.

In order to compare the policy choices of the different types of policy makers, Table 1 reports the equilibrium public expenditure levels under twelve model's specifications: six in which policy makers focus on general interest policies, and six in which they focus on special interest policies. For each policy regime, we examine both situations in which all types of policy makers have identical skills, and situations in which skills improve with experience in office, so that, in line with Assumption 3, policy makers of type Ii are more skilled than policy makers of type Ss, that in turn are more skilled than types Aa, Bb, Ff and Gg (all equally skilled). For each combination of policy regime and skill structure, we consider two values of the probability λ, .2 and .8. Hence, in Table 1, public expenditure by policy makers of group (i) is represented by $\tilde{Y}^{Ii*}$ for $\lambda = .8$; public expenditure by group (ii) by $\tilde{Y}^{Ii*}$ for $\lambda = .2$; public exenditure by group (iii) by $\tilde{Y}^{Ss*}$; public expenditure by group (iv) by $\tilde{Y}^{Kk*}$, a weighted average of public expenditure levels of policy makers of type Aa, Bb, Ff and Gg. See the Appendix for the list of the parameters' specification, and for the complete set of endogenous variables.

Recall that, in our theoretical framework, public expenditure depends on the joint effort exerted by policy makers, and that effort reduces public expenditure when politicians focus on general interest policies, wheras it expands it when they focus on special interest policies (Proposition 1). In this respect, see Table 2 in the Appendix, politicians of group (ii), i.e., second-term policy makers Ii with low prospects for i to be appointed for mayorship in the subsequent electoral term, have very weak incentives

to exert effort, and hence their public expenditure is very high in the general policy regime, very low in the special policy regime. The second-term deputy i exerts instead a lot of effort if her chances to be appointed for mayorship are high. In general, an increase in the probability λ fosters effort by all types of policy makers, since the political chain, by overcoming term limits, lengthens the carreer horizon of policy makers. Under the general policies regime, better skills by policy makers of type Ii and Ss, with respect to other types of policy makers, result in less effort by policy makers of type Ii and more effort by the other types. Under the special policies regime, the pattern is reversed.

In terms of public expenditure (our observable measure of public policy), Table 1 shows the following patterns. The weak incentives to provide effort by second-term policy makers, because of low prospects for candidacy for mayorship for the deputy, show up in higher expenditure than other types when the electoral competition is on general policies, in lower expenditure when competition is on special policies, only when skills are homogeneous. With heterogeus skills, the better skills by more experienced policy makers compensate for the lack of effort, resulting in no large differencies in public expenditure. The most clear pattern is that of first term policy makers of type Ss: they tend to spend less under the general policy regime, more under the special policy regime.

4 Empirical analysis

4.1 Empirical strategy

In order to investigate the effects of term limit-related variables on spending performance of local governments, we exploit two different model specifications. The first one (MODEL A) includes only a standard dummy for the presence of mayors at their second and last mandatory term (TERM) as main regressor. The second one (MODEL B) extends the basic specification to account for both the fact that mayors at their second term may have the candidate to next elections for the same party in office in the present municipal council (TERM_CAND) and that mayors at their first term may have already experienced themselves some government role in the previous municipal council (NO_TERM_EXP). The two model specifications can be represented by the following equations, respectively:

$$Y_{it} = \beta \mathrm{TERM}_{it} + \gamma \mathrm{PC}_{it} + \delta X_{it} + M_i + T_t + \varepsilon_{it}, \qquad ([\mathrm{A}])$$

$$Y_{it} = \beta_1 \mathrm{TERM}_{it} + \beta_2 \mathrm{TERM\_CAND}_{it} + \beta_3 \mathrm{NO\_TERM\_EXP}_{it} + \\ + \gamma \mathrm{PC}_{it} + \delta X_{it} + M_i + T_t + \varepsilon_{it}, \qquad ([\mathrm{B}])$$

where Y_{it} is a measure of spending per-capita (total, current, or capital) in municipality i at time t; PC_{it} is a vector of political variables accounting for the effects of electoral budget cycle, the alignment with higher government tiers, and the degree of competition in elections (see below), X_{it} is a vector of other controls related to demographic and fiscal features, M_i denotes a full set of municipality-specific effects, T_t denotes a full set of year-specific fixed effects, and ε_{it} is a disturbance term. Throughout the paper all standard errors are robust, clustered at the mayor level, to capture potential serial correlation in the residual error term within each legislature (Bertrand *et al.*, 2004).

MODEL A and MODEL B are estimated by starting with a baseline specification where only *term limit-related* variables are included in equations [A] and [B], jointly with the vector of other controls X and fixed effects M and T, without considering the potential role of other political variables PC (MODELS A1 and B1). This specification is then progressively extended to account for the effects of political budget cycle (MODELS A2 and B2), the alignment with higher government levels (MODELS A3 and B3), and the degree of electoral competition (MODELS A4 and B4). This strategy allows to test the robustness of the estimated coefficients for the variables of main interest (i.e., TERM, TERM_CAND, NO_TERM_EXP) with respect to the inclusion of other political factors whose effects are possibly intertwined with the impact of term limit-related variables.

4.2 Data and variables

We consider all 1,206 municipalities in Piedmont Region over the period from 1998 to 2006. Information on municipal budgets and local politicians' characteristics are derived from the archive of the Ministry of the Interior, while the data about elections' candidates and results come from the Electoral Monitoring of Piedmont Region, and those concerning the demographic structure of population from the National Institute of Statistics (ISTAT). Lack of information about three local governments reduced the sample to 1,203 units. Moreover, as some political variables and demographic characteristics are not available for all years for some municipalities, MODELS 1-2-3 are estimated using only 10,740 total observations and MODEL 4 only 10,738.

Dependent variables. The focus of the study is on the spending side of budget decisions taken by the local governments. In particular, we consider municipal expenditure per-capita as dependent variable in our regression analysis, looking both at total spending on the whole (TOT_EXPEND) and at its two separate components, current spending (CURR_EXPEND) and capital spending (CURR_EXPEND). All the values are deflated using the 1998 price index. Capital spending is about 30% of the total

amount, but it is more volatile than current spending (see summary statistics in Table 4), probably because it is more reactive to electoral incentives faced by incumbent politicians, as highlighted by recent political budget cycle literature (e.g., Drazen and Eslava, 2010).

Term-limit related variables. Our main interest here are the effects of term limit on mayors' spending decisions. In Italy, this limitation was introduced, for the first time by the Law 81/1993 and only for local governments, stating that mayors could not run consecutively beyond their second term. The number of terms to which was applied this system was started to be computed from the first election after the law approval, that is the spring of 1993. Thus, in our sample, we can separate the municipalities according to whether their mayors have reached their second and last mandatory term or not (TERM). It results that 38% of total observations belongs to this category (see table 1), corresponding to about 80% of municipalities which have experienced at least for one year a term limited executive.

However, compared to previous literature addressing the effects of executive term limit on fiscal performance (e.g., Besley and Case, 1995; Johnson and Crain, 2004; List and Sturm, 2006; Dalle Nogare and Ricciuti, 2011), we consider also that the influence of term limit on governor's local budget decisions may be affected by a sort of 'political dynasty' effect, characterized in our theoretical model by 'overlapping' tickets of candidates for mayor and deputy. Indeed, second term executive policy makers may exhibit different incentives in terms of fiscal policy when they have the candidate to next elections in office in the present council, since they can aim, for instance, at maximizing the probability that their successor wins. To account for this effect, which has never been investigated before, we differentiate municipalities according to whether they have a second term mayor with the candidate to next elections for the same party currently in office in the council (TERM_CAND). In our data, 30% of observations are potentially subjected to this 'political dynasty' effect, corresponding to about 60% of municipalities. In addition, having in mind a kind of 'chain handover' that aims to perpetuate the political expertise over time, as illustrated in the theoretical framework presented above, we control also for a possible effect on spending decisions which arises for first term mayors who have already been involved in some government role in the previous municipal council (NO_TERM_EXP). 37% of total observations in the sample belongs to this last category, corresponding to about 90% of municipalities.

Political factors. In order to test the robustness of our estimates of the marginal effects of term limits on local spending choices, we extend the baseline specification of equations [A] and [B] to control for the potential role of other variables traditionally investigated by the literature on the political determinants of fiscal policy, first of all

the presence of opportunistic electoral budget cycles, i.e., the possibility that politicians utilize fiscal policy to increase their reelection chances by promoting positive shocks to the economy in the periods before new elections (Rogoff and Sibert, 1988; Rogoff, 1990): to capture this effect, considering that the term of office as mayor is 5 years, we include in the vector PC four dummies that signal that the mayor is in the first, the second, the third or the fourth (and last) year after her election (CYCLE_1, CYCLE_2, CYCLE_3, CYCLE_4, respectively).

We also account for recent developments in the electoral budget cycle research, which point to that the presence and magnitude of electoral fiscal cycles are conditional on certain institutional and political features (see, e.g., the survey in De Haan and Klomp, 2013). In particular, electoral budget cycles may be related to the tactical allocation of funds from higher to lower government tiers in the context of fiscal federalism, thus implying different incentives in managing the expenditure for local executives politically aligned with higher levels' executives compared to those that are not aligned (e.g., Solé-Ollé and Sorribas-Navarro, 2008; Arulampalan *et al.*, 2009; Bordignon and Turati, 2009; Lema and Streb, 2013; Francese *et al.*, 2014). Since municipalities in Italy are the lowest government tier and receive transfers from the Central government, the Regions (the first sub-national level) and the Provinces (the second sub-national level), we further extend the specification of equations [A] and [B] by adding a dummy indicating the political alignment between the mayor's party and the party of Province's president (ALIGN_PROV), a dummy for the alignment with the Region's president (ALIGN_REG), and a dummy for the alignment with the Central government's president (ALIGN_CENTER).

Finally, we control for the possibility that the ability of the mayor to arbitrarily define spending decisions in the most electorally effective way is increased when her victory in the elections has been relatively easier, due to a low degree of competition among candidates and/or parties (e.g., Besley and Case, 2003; Klein and Sakurai, 2015). We include two variables to capture the potential effect on spending of electoral contests that are less openly fought: the first one (SUPPORT), aimed at capturing the role of a strong mayor's charisma, is an indicator of concentration of votes in favor of the mayor in office and is measured by the percentage of votes received in the last election; the second one (IDEOLOGY), aimed at reflecting the historical role of political ideology and how much it is rooted in the territory (as a sort of protective shield for the mayor against the competition from rival parties' candidates), is the number of consecutive years the current mayor's party is in office in the municipality by passing through different mayors' legislatures.

Other controls. The vector of other controls X, which is included in all estimated

models, relates to demographic and fiscal characteristics of the municipalities and the mayors. As for demographic features, we include the proportion of elderly (people over 65 years old) and young (people below 14 years old) living in each municipality, the age of the mayor and a dummy for her gender (equal to 1 if the mayor is a female). The age structure of the population has become a standard approach in the political budget cycle literature for capturing variations in the demand for government services (e.g., Brender and Drazen, 2005; Veiga and Veiga, 2007; Sakurai and Menezes-Filho, 2011). Similarly, the control for the age and the gender of the mayor is in accordance to recent political-economy research that has stressed the roles of more experienced and of female representatives in determining policy preferences and spending outcomes (e.g., Edlund and Pande, 2002; Chattopadhyay and Duflo, 2004; Funk and Gathmann, 2008; Dal Bo and Rossi, 2011).

As for fiscal characteristics of the municipalities, we considered the argument of modern fiscal federalism theories (e.g., Weingast, 2009) according to which the way the local provision of public services is financed – i.e., mostly by own revenues or by transfers from higher government tiers – has an influence on opportunistic fiscal policies of sub-national governors, as it determines their degree of electoral accountability and related spending incentives. To account for this issue, whose validity has been confirmed empirically by a number of scholars (e.g., Jin and Zou, 2002; Borge and Rattsø, 2008; Boetti *et al.*, 2012; Eyraud and Lusinyan, 2013; Francese *et al.*, 2014), we use the amount of total grants per-capita (i.e., the transfer received by the Province, the Region and the Central government) as an indicator of vertical fiscal imbalance.

Furthermore, recent studies on sub-national governments have shown that the presence of stringent fiscal rules imposed by higher government levels have important limiting effects on political budget cycles and, more generally, on inefficient spending (e.g., Rose, 2006; Bordignon and Turati, 2009; Schneider, 2010; Boetti *et al.*, 2012; Piacenza and Turati, 2014). As local governments' budgets are consolidated in the Italian public administration's total budget, and contribute to defining the national deficit – which is relevant for the fiscal rules defined in the European Stability and Growth Pact – Italy has implemented a so-called domestic stability pact (DSP) since 1999. The fiscal rules for municipalities and other sub-national governments have often been varied by the Central government, which imposed restraints alternatively on expenditure growth or on deficit size. However, starting from 2001, the municipalities with less than 5,000 inhabitants were excluded from DSP. This institutional change allows us to control for the effects of DSP on local spending decisions, by introducing a time-varying dummy which distinguishes local governments subject to DSP from the municipalities that – starting from 2001 – have been excluded from the application of this fiscal discipline

rule. Summary statistics for all the variables included in the estimated models are shown in Table 4.

4.3 Estimation results

In this section we discuss the results from the estimation of equations [A] and [B] for total municipal spending per-capita (Table 5) and its two components, current spending (Table 6) and capital spending (Table 7). The upper part of each table refers to equation [A], while the lower part shows the estimates of equation [B], which includes also the effects of 'political dynasty' besides the standard variable of term limit.

Looking first at the effects of main regressors of interest – i.e., *term-limit related* variables – one can notice that none of the estimated models shows a significant effect of TERM, which identifies the difference in expenditure per-capita between second term and first term mayors. Interestingly, this evidence holds regardless of the type of expenditure analyzed (total, current, capital), of the fact to keep account of possible 'political dynasty' effects (MODELS A vs. MODELS B), and of the inclusion of controls for the role played by other political factors (specification 1 vs. specifications 2-3-4). These results suggest that, contrary to the findings presented in previous studies (e.g., Besley and Case, 1995; Johnson and Crain, 2004; List and Sturm, 2006; Delle Nogare and Ricciuti, 2011; Klein and Sakurai, 2015), term limit *per se* is not an important source of variation in spending policies of Italian mayors.

Turning now the attention on 'political dynasty' effects, the absence of differences in spending behavior between second term and first term mayors is confirmed also when we control for potential incentives to manipulate spending for second term mayors who have the candidate to next elections in office in the present municipal council (i.e., they can exert costly effort to induce citizens to vote for their 'successor', so as to ensure the continuation of the political dynasty), as well as for the possible expertise gained by first term mayors that were already in the municipal council of previous legislature (the omitted category is first term mayors without a previous experience).

However, it is worth highlighting that while in all MODELS B the estimated coefficients of TERM and TERM_CAND are both always statistically not significant (notice that the latter may be justified with the argument that second term mayors take care about the victory of their successor as they took for themselves during their first term), there is evidence of a significantly negative impact on spending of the variable used to identify first term mayors with a previous government experience (NO_TERM_EXP). In particular, this effect appears to be driven by the component of capital spending (estimates for current spending presented in Table 6 show a coefficient that, albeit

negative, is never statistically significant) and tends to increase progressively passing from the baseline model (MODEL B1) to the most complete specification (MODEL B4). Overall the results point out the presence of a *competence* effect associated to the political dynasty, i.e. the ability of first term mayors in managing better capital expenditure due to skills acquired in prior political experiences (possibly by reducing inefficiency, for instance, relying on more competitive public procurement mechanisms for infrastructure and equipment delivery); on the other hand, differences in the *accountability* between first and second term mayors do not appear significant, regardless of the presence in second term mayors' government of a future candidate for the next elections aimed to perpetuate the political dynasty.[11]

Turning to the effects of the political factors (PC) and other control variables (X), we see the all dummies for electoral budget cycle have a positive and significant effect on capital spending but not on the current component,[12] with the highest magnitude observed in the mid of the legislature (CYCLE_2), which is reasonable in the light of the time lag with which the effects of this type of expenditure typically occur. The coefficients for the political alignment with higher government levels are positive and significant only for the Province and the Region in the most complete specification but statistical significance disappears when total spending is decomposed into its current and capital components. As for the role played by the degree of electoral competition, there is evidence of a significant effect (observed only on current expenditure) for the support received by the mayor in the last elections, while no significant effects arise for the political ideology. Finally, none of the demographic variables is statistically significant (probably because of the inclusion of municipality fixed-effects and the low within variation observed for these regressors), while vertical fiscal imbalance (total grants per-capita) and fiscal rules (the presence of DSP) confirm to be both important drivers of local spending decisions (in particular for the current component, which increases with transfers from higher tiers and reduces for municipalities subjected to the domestic stability pact).

[11] Regarding the distinction of competence and accountability effects see also Alt et al. (2011).

[12] This result is consistent with recent studies which point out that investment expenditures such as, for instance, the construction of roads, schools, and elderly care houses, or the acquisition of new equipment (ambulances, school buses), can be considered the visible and presumably more appealing public goods for voters from which a political cycle emerges. See, e.g., Drazen and Eslava (2010), Aidt et al. (2011), Klein and Sakurai (2015).

5 Concluding remarks

In this paper we discuss the effects of an electoral system with a term-limit provision on the spending behavior of local policy makers, paying special attention to the fact that elected representatives do not act in isolation but interact with their political peers. Starting from this observation, we build a probabilistic voting model which accounts for the possibility that the behavior of policy makers at their last term can be influenced by the presence, in the city council, of the next candidate for mayorship.

We then test these predictions by considering a panel of more than 1,203 Italian municipalities, from 1998 to 2006. Our results point to the existence of a strong 'expertise' effect, by which first term mayors, who already served as second-row policy makers during the previous terms, tend to govern more efficiently than first term mayors without previous experience. On the contrary, there is no evidence of any relevant effect of term limits on the behavior of politicians at their last term of office.

Appendix: Numerical simulations

The parameters common to all simulations shown in Tables 1 and 2 are as follows: $n_1 = n_2 = .5$, $\pi = 1$, $\omega = 1$, $\xi = 1$, $\rho = 1$, $\delta = .5$, $m = .6$, $d = .5$, $\bar{Y} = 1$. In the equilibria with general interest policies, it is $c_1 = 1$, $c_2 = 2$; in those with special interest policies, it is $c_1 = 1$, $c_2 = 6$. In the specifications with homogeneous skills, it is: $\psi^{Kk} = .5$, $\phi^{Kk} = .9$ for all types of policy makers in ticket. In specifications I with heterogeneous skills, it is $\psi^{Ii} = .55$, $\psi^{Ss} = .5$, $\psi^{Kk} = .45$; $\phi^{Ii} = .95$, $\phi^{Ss} = .9$, $\phi^{Kk} = .85$, $Kk = Aa, Bb, Ff, Gg$. In specifications II with heterogeneous skills, it is $\psi^{Ii} = .6$, $\psi^{Ss} = .5$, $\psi^{Kk} = .4$; $\phi^{Ii} = .98$, $\phi^{Ss} = .9$, $\phi^{Kk} = .82$, $Kk = Aa, Bb, Ff, Gg$.

All relevant endogenous variables in the twelve model's specifications are reported in Table 2. Public expenditure Y^{Kk*} in Table 1 is a weighted average of public expenditures Y^{Aa*}, Y^{Bb*}, Y^{Ff*} and Y^{Gg*} in Table 2. The weights are given by the respective probabilities of winning the elections, P^{Kk*}, by policy makers $Kk = Aa, Bb, Ff, Gg$, taking into account that elections of type 'Ii versus Ff' are twice as much frequent than the other types of elections (see below), and that the relative frequency of the latter is governed by the probability λ. Hence, the weights are $P^{Aa*}(1-\lambda)/3$ for Y^{Aa*}, $P^{Bb*}(1-\lambda)/3$ for Y^{Aa*}, $P^{Ff*}(2/3)$ for Y^{Ff*}, $P^{Gg*}(\lambda/3)$ for Y^{Gg*}.

To see that elections of type 'Ii versus Ff' are twice as much frequent than the other types of elections, extrapolating from Figure 1, the number of elections of type 'Ii versus Ff' at stages 1 to 8 is: 1, 1, 3, 5, 11, 21, 43, 85, and so on. The number of elections of type 'Ss versus Gg' is: 0, 1λ, 1λ, 3λ, 5λ, 11λ, 21λ, 43λ, and so on (for

regime	general interest policies						special interest policies					
skills	homog.		heterog. I		heterog. II		homog.		heterog. I		heterog. II	
λ	.2	.8	.2	.8	.2	.8	.2	.8	.2	.8	.2	.8
M^{I*}	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
D^{a*}	.050	.200	.055	.221	.061	.245	.046	.184	.054	.219	.060	.242
M^{K*}	.196	.214	.212	.234	.229	.256	.181	.197	.208	.231	.225	.253
D^{k*}	.196	.214	.212	.234	.229	.256	.181	.197	.208	.231	.225	.253
$\tilde{L}^{A*}$	.296	.314	.257	.278	.204	.231	.320	.336	.261	.284	.209	.237
$\tilde{L}^{a*}$	.196	.214	.157	.178	.104	.131	.220	.236	.161	.184	.109	.137
$\tilde{L}^{B*}$	.296	.314	.257	.278	.204	.231	.320	.336	.261	.284	.209	.237
$\tilde{L}^{b*}$	.196	.214	.157	.178	.104	.131	.220	.236	.161	.184	.109	.137
$\tilde{L}^{I*}$	.157	.138	.161	.139	.163	.138	.192	.174	.194	.172	.193	.168
$\tilde{L}^{i*}$	.107	.238	.116	.260	.124	.283	.138	.259	.148	.290	.153	.311
$\tilde{L}^{F*}$	.239	.276	.238	.286	.235	.299	.268	.301	.273	.326	.275	.344
$\tilde{L}^{f*}$	.139	.176	.138	.186	.135	.199	.168	.201	.173	.226	.175	.244
$\tilde{L}^{S*}$	.296	.314	.287	.308	.277	.302	.320	.336	.307	.329	.299	.325
$\tilde{L}^{s*}$	.196	.214	.187	.208	.177	.202	.220	.236	.207	.229	.199	.225
$\tilde{L}^{G*}$	.296	.314	.285	.307	.269	.298	.320	.336	.308	.332	.296	.328
$\tilde{L}^{g*}$	.196	.214	.185	.207	.169	.198	.220	.236	.208	.232	.196	.228
$\tilde{Y}^{Aa*}$	.754	.736	.814	.795	.877	.855	1.540	1.572	1.422	1.467	1.318	1.374
$\tilde{Y}^{Bb*}$	.754	.736	.814	.795	.877	.855	1.540	1.572	1.422	1.467	1.318	1.374
$\tilde{P}^{Aa*}$	.500	.500	.500	.500	.500	.500	.500	.500	.500	.500	.500	.500
$\tilde{Y}^{Ii*}$	.868	.812	.848	.780	.828	.747	1.330	1.433	1.341	1.462	1.346	1.479
$\tilde{Y}^{Ff*}$	.811	.774	.831	.787	.852	.801	1.435	1.503	1.446	1.551	1.449	1.589
$\tilde{P}^{Ii*}$	.443	.462	.483	.507	.524	.554	.443	.462	.511	.538	.553	.587
$\tilde{Y}^{Ss*}$	.754	.736	.763	.742	.773	.748	1.540	1.572	1.515	1.558	1.499	1.550
$\tilde{Y}^{Gg*}$	.754	.736	.789	.768	.825	.802	1.540	1.572	1.516	1.565	1.492	1.555
$\tilde{P}^{Ss*}$	.500	.500	.525	.526	.552	.554	.500	.500	.543	.545	.571	.573

In row 3, M^{K*}, $K = F, S, G, A, B$. In row 4, D^{k*}, $k = f, s, g, a, b$.

Table 2: Numerical simulations of the multi-stage electoral game.

type Bb versus Aa it is the same series but multiplied by $1-\lambda$ instead of λ). Pooling stages 1 and 2, the total number is 2 for the former type of elections and 1λ for the latter. Pooling stages 3 and 4, it is 8 and 4λ. Pooling stages 5 and 6, it is 32 and 16λ. Pooling stages 7 and 8, it is 128 and 64λ. These numbers show that the elections of type 'Ii versus Ff' are twice more frequent (for $\lambda = 1$) than those of type 'Ss versus Gg'.

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Table 4. Summary statistics of the variables used in models [A]-[B].

Variable	Obs.	Mean	Std. Dev.	Min	Max
Dependent					
TOT_EXPEND	10,827	1,549.95	2,192.39	0.58	125,676.50
CURR_EXPEND	10,827	716.48	826.05	0.41	73,736.34
CAP_EXPEND	10,827	651.91	1,492.39	0.00	45,968.57
Term limit					
TERM	10,827	0.38	0.49	0	1
TERM_CAND	10,827	0.30	0.46	0	1
NO_TERM_EXP	10,827	0.37	0.48	0	1
Political factors					
CYCLE_1	10,827	0.22	0.41	0	1
CYCLE_2	10,827	0.22	0.41	0	1
CYCLE_3	10,827	0.22	0.41	0	1
CYCLE_4	10,827	0.11	0.32	0	1
ALIGN_PROV	10,827	0.15	0.36	0	1
ALIGN_REG	10,827	0.15	0.35	0	1
ALIGN_CENTER	10,827	0.13	0.34	0	1
SUPPORT	10,750	68.01	19.34	23	100
IDEOLOGY	10,827	5.45	3.15	1	14
Other controls					
YOUNG	10,827	11.95	2.80	0	20.90
ELDERLY	10,827	24.94	6.64	8.79	67.09
AGE_MAYOR	10,740	51.80	10.45	23	85
GENDER_MAYOR	10,740	0.10	0.30	0	1
GRANTS	10,827	237.83	208.62	0	9301.80
PACT	10,827	0.11	0.31	0	1

Table 5. Estimates of term limit effects on *total* municipal expenditure per-capita.

Dep. Var. ***TOT_EXPEND***	**MODEL A1**		**MODEL A2**		**MODEL A3**		**MODEL A4**	
	coeff.	std.err	coeff.	std.err	coeff.	std.err	coeff.	std.err
TERM	19.089	39.777	27.170	39.417	25.899	39.396	12.756	38.780
CYCLE_1	--		110.812	58.003 *	110.396	57.926 *	112.798	58.067 *
CYCLE_2	--		209.918	86.192 **	207.389	85.579 **	214.039	86.206 **
CYCLE_3	--		137.885	63.561 **	128.404	63.168 **	134.176	64.239 **
CYCLE_4	--		140.982	77.657 *	135.134	77.010 *	144.877	77.248 *
ALIGN_PROV	--		--		56.073	38.847	69.249	39.270 *
ALIGN_REG	--		--		72.606	45.606	92.502	50.352 *
ALIGN_CENTER	--		--		-48.267	37.156	-44.508	36.927
SUPPORT	--		--		--		2.185	1.212 *
IDEOLOGY	--		--		--		-8.852	7.658
Number of obs.	10740		10740		10740		10738	
R^2	0.642		0.642		0.642		0.642	

Dep. Var. ***TOT_EXPEND***	**MODEL B1**		**MODEL B2**		**MODEL B3**		**MODEL B4**	
	coeff.	std.err	coeff.	std.err	coeff.	std.err	coeff.	std.err
TERM	-65.897	75.002	-47.186	74.879	-47.530	74.725	-60.889	74.783
TERM_CAND	43.867	74.451	23.890	74.602	22.044	74.415	18.916	74.425
NO_TERM_EXP	-88.542	46.085 *	-95.667	46.179 **	-96.352	46.245 **	-98.729	46.111 **
CYCLE_1	--		110.256	57.921 *	109.878	57.854 *	112.133	57.986 *
CYCLE_2	--		210.673	86.077 **	208.212	85.512 **	214.504	86.166 **
CYCLE_3	--		142.364	63.784 **	132.877	63.353 **	138.050	64.362 **
CYCLE_4	--		139.551	78.032 *	133.740	77.386 *	142.766	77.708 *
ALIGN_PROV	--		--		55.797	38.678	68.071	39.168 *
ALIGN_REG	--		--		73.466	45.591	92.339	50.337 *
ALIGN_CENTER	--		--		-47.791	37.061	-44.200	36.813
SUPPORT	--		--		--		2.303	1.203 *
IDEOLOGY	--		--		--		-8.282	7.673
Number of obs.	10740		10740		10740		10738	
R^2	0.642		0.642		0.642		0.642	

*All models include control variables (demographic and fiscal features), municipality fixed effects, and year fixed effects. Standard errors are clustered at the mayor level. Significance levels: 1%***, 5% **, 10% *.*

Table 6. Estimates of term limit effects on *current* municipal expenditure per-capita.

Dep. Var. ***CURR_EXPEND***	**MODEL A1**		**MODEL A2**		**MODEL A3**		**MODEL A4**		
	coeff.	std.err	coeff.	std.err	coeff.	std.err	coeff.	std.err	
TERM	0.464	10.807	1.403	10.966	1.183	10.950	-2.668	10.944	
CYCLE_1	--		-10.627	16.016	-10.826	16.011	-9.643	15.960	
CYCLE_2	--		11.317	14.883	10.942	14.807	14.673	15.565	
CYCLE_3	--		-5.306	14.916	-6.595	14.936	-2.829	15.094	
CYCLE_4	--		-14.339	17.396	-15.281	17.465	-9.620	17.684	
ALIGN_PROV	--		--		-3.282	11.960	3.912	11.791	
ALIGN_REG	--		--		14.513	14.350	25.042	18.446	
ALIGN_CENTER	--		--		-0.159	12.035	1.836	12.108	
SUPPORT	--		--		--		0.742	0.420	*
IDEOLOGY	--		--		--		-4.809	3.322	
Number of obs.	10740		10740		10740		10738		
R^2	0.802		0.802		0.802		0.802		

Dep. Var. ***CURR_EXPEND***	**MODEL B1**		**MODEL B2**		**MODEL B3**		**MODEL B4**		
	coeff.	std.err	coeff.	std.err	coeff.	std.err	coeff.	std.err	
TERM	11.819	20.951	12.881	21.305	13.040	21.360	9.692	21.670	
TERM_CAND	-27.281	21.404	-27.636	21.681	-28.398	21.849	-29.711	22.009	
NO_TERM_EXP	-14.502	11.909	-14.818	11.951	-15.094	11.943	-15.600	11.939	
CYCLE_1	--		-9.771	16.086	-9.963	16.080	-8.728	16.052	
CYCLE_2	--		12.967	14.986	12.606	14.914	16.416	15.749	
CYCLE_3	--		-3.627	15.069	-4.959	15.071	-1.143	15.289	
CYCLE_4	--		-12.380	17.593	-13.343	17.637	-7.594	17.990	
ALIGN_PROV	--		--		-3.578	11.999	3.618	11.805	
ALIGN_REG	--		--		15.265	14.371	25.863	18.555	
ALIGN_CENTER	--		--		0.230	12.073	2.249	12.155	
SUPPORT	--		--		--		0.764	0.419	*
IDEOLOGY	--		--		--		-4.821	3.342	
Number of obs.	10740		10740		10740		10738		
R^2	0.802		0.802		0.802		0.803		

*All models include control variables (demographic and fiscal features), municipality fixed effects, and year fixed effects. Standard errors are clustered at the mayor level. Significance levels: 1%***, 5% **, 10% *.*

Table 7. Estimates of term limit effects on *capital* municipal expenditure per-capita.

Dep. Var. ***CAP_EXPEND***	**MODEL A1**		**MODEL A2**			**MODEL A3**			**MODEL A4**		
	coeff.	std.err	coeff.	std.err		coeff.	std.err		coeff.	std.err	
TERM	3.005	30.590	10.000	29.938		8.960	30.001		4.036	30.467	
CYCLE_1	--		129.880	51.623	**	129.640	51.508	**	129.620	51.739	**
CYCLE_2	--		196.283	81.532	**	194.154	80.934	**	194.544	81.184	**
CYCLE_3	--		143.645	55.196	***	135.693	54.770	**	135.356	55.773	**
CYCLE_4	--		155.242	72.629	**	150.367	71.856	**	150.726	72.004	**
ALIGN_PROV	--		--			56.340	34.555		57.619	35.310	
ALIGN_REG	--		--			55.518	38.429		57.814	39.836	
ALIGN_CENTER	--		--			-43.548	30.046		-43.115	29.772	
SUPPORT	--		--			--			0.710	0.903	
IDEOLOGY	--		--			--			-0.877	5.004	
Number of obs.	10740		10740			10740			10738		
R^2	0.433		0.434			0.434			0.435		

Dep. Var. CAP_***EXPEND***	**MODEL B1**		**MODEL B2**			**MODEL B3**			**MODEL B4**		
	coeff.	std.err	coeff.	std.err		coeff.	std.err		coeff.	std.err	
TERM	-90.588	62.09735	-73.223	61.5366		-73.7051	61.287		-79.648	61.359	
TERM_CAND	74.420	60.9673	55.170	60.70011		54.07529	60.265		53.412	60.119	
NO_TERM_EXP	-65.409	40.13364	-71.950	40.18096	*	-72.3633	40.232	*	-73.493	40.047	*
CYCLE_1	--		128.344	51.532	**	128.139	51.433	**	127.898	51.640	**
CYCLE_2	--		195.031	81.334	**	192.965	80.785	**	192.883	81.025	**
CYCLE_3	--		145.844	55.395	***	137.950	54.945	**	136.948	55.854	**
CYCLE_4	--		151.576	72.824	**	146.779	72.073	**	146.315	72.224	**
ALIGN_PROV	--		--			56.431	34.348		56.871	35.198	
ALIGN_REG	--		--			55.438	38.363		56.674	39.688	
ALIGN_CENTER	--		--			-43.562	29.908		-43.325	29.611	
SUPPORT	--		--			--			0.795	0.891	
IDEOLOGY	--		--			--			-0.330	4.993	
Number of obs.	10740		10740			10740			10738		
R^2	0.434		0.435			0.435			0.435		

*All models include control variables (demographic and fiscal features), municipality fixed effects, and year fixed effects. Standard errors are clustered at the mayor level. Significance levels: 1%***, 5% **, 10% *.*