

Document de treball de l'IEB 2013/35

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Fiscal Federalism

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Postal Address:

Institut d'Economia de Barcelona
Facultat d'Economia i Empresa
Universitat de Barcelona
C/ Tinent Coronel Valenzuela, 1-11
(08034) Barcelona, Spain
Tel.: + 34 93 403 46 46
Fax: + 34 93 403 98 32
ieb@ub.edu
<http://www.ieb.ub.edu>

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ABSTRACT: We analyze the distribution of central transfers to municipal governments for the period between the 1993 and the 2005 electoral reforms using a panel of Italian municipalities. We find evidence that being the birth town of a Member of Parliament results in an increase in yearly transfers per capita paid to a municipal administration of roughly 2 percent. Controlling for town fixed effects and concentrating on politicians who are member of economic commissions we confirm that the effect is driven by an active behavior of the politician and not by unobserved town-level characteristics. Using a feature of single member district systems we are able to conclude that these actions are not driven by the desire of being re-elected in Parliament, the standard explanation for pork-barrel spending in the literature. Instead, our results suggest that those extra transfers may be a way for a politician to prepare the ground for a post-congressional career in local government.

JEL Codes: H720, D720

Keywords: Redistributive policies, pork-barrel policies, political economy

Felipe Carozzi
CEMFI
Casado del Alisal 5
E-28014 Madrid, Spain
Email: carozzi@cemfi.es

Luca Repetto
CEMFI
Casado del Alisal 5
E-28014 Madrid, Spain
Email: repetto@cemfi.es

* We would like to thank Stéphane Bonhomme, Eshien Chong, Stefano Gagliarducci, Mónica Martínez-Bravo, Claudio Michelacci and Diego Puga for useful comments and suggestions. We would also like to thank seminar participants at CEMFI, LSE SERC and LSE Government, together with participants at the 2013 EPCS meeting and the V Workshop on Fiscal Decentralization at IEB for valuable comments and remarks. We thank the Italian Ministry for Internal Affairs and Stefano Gagliarducci for data on candidates. Funding from the European Commission's Seventh Research Framework Programme through the European Research Council's Advanced Grant 'Spatial Spikes' (contract number 269868) and financial support from the AXA PhD scholarship are gratefully acknowledged by the first and second author, respectively.

1 Introduction

State transfers in Italy account to as much as one third of the financial needs of municipal administrations, and their allocation is understandably a matter of intense discussion and negotiation. Even in presence of objective criteria established by law, elected representatives may have incentives to divert resources towards specific targets for electoral or partisan or other reasons - a practice known as *pork-barrel*.

In this paper we study whether members of the Italian Parliament affect the allocation of transfers for the funding of municipal governments to favor their birth towns. In addition to documenting this fact, our main contribution is to separate the roles of re-election and personal incentives as its possible drivers. To this aim, we use a panel of Italian municipalities for years 1994 to 2006 and data on personal characteristics of members of the *Camera* and *Senato*.

After the 1994 reform, Italy moved to a single-member district (SMD) system which stayed in place for the subsequent three elections.¹ It is well known that Members of Parliament in majoritarian systems are typically re-elected within the same district, thus electoral incentives are highly localized. We use this observation to separate re-election incentives from a politician's personal or career motives in the allocation of pork barrel. A politician who is elected in a district that does not include her birth town (an *external* politician) has, in principle, no direct electoral incentives to divert transfers home, as her electoral base is elsewhere.

Our results indicate that the amount of transfers received by a municipality increases when it becomes the birthplace of one of the national legislators. This effect is mainly driven by external legislators. We propose an explanation to our results based on post-congressional career concerns.

Weingast, Shepsle and Johnsen (1981) elegantly formalize how personal incentives may induce politicians to choose Pareto inefficient policies which target their constituency over others. The inefficiency arises because elected officials do not internalize the welfare losses caused by the tax imposed on other constituencies.

On the empirical side, many authors have explored how electoral incentives are often behind distributional policies. Milesi-Ferretti, Perotti and Rostagno (2002) show that policymaking is different under proportional and majoritarian systems. Under a proportional system, representatives have incentives to target large parts of the electorate ("social constituencies"), while majoritarian elected officials will concentrate in localized spending. Aidt and Shvets (2012) investigate to what extent reelection concerns matter for pork-barreling and whether they help promote socially desirable outcomes by using data on individual legislators for the US.

But is distributional policy all about electoral concerns? Under the seminal conceptualization of politicians in Downs (1957) this is indeed the case. But we know politicians'

¹To be precise, the system, promptly baptized "Minotaur" for its dual nature, prescribed that three quarters of the seats were to be allocated by majoritarian (SMD) system and one quarter by proportional. We will take this into account in the analysis.

decisions may be also affected by their effects on income, the perks of power, preferences or other personal traits. Merlo et al. (2008), for instance, models politicians as caring both about reelection and “outside options” in the form of potential public and private sector wages. In Wittman (1983) politicians have policy preferences in addition to caring about winning and this pulls proposed policies away from those predicted by the main voter theorem. In an empirical study, Washington (2008) documents that members of the US congress change voting patterns on gender sensitive issues depending on the gender composition of their offspring. In sum, there is scope for behavioral explanations of politicians’ actions beyond those given by election incentives.

In our study of pork-barrel the challenge lies in finding an empirical strategy which allows to distinguish the type of incentives at play. For this purpose we use the fact that in majoritarian systems reelection efforts are geographically concentrated. Members of Parliament who retain their position after a change in legislature typically do so at their original district of election. To use this intuition in our analysis we restrict our sample to the majoritarian legislatures in Italian politics, between 1994 and 2006.

We define a municipality as connected if a member of Parliament was born there, and distinguish between *external* and *internal* connections. A municipality has an internal connection when it is the birth town of the legislator representing the municipality’s electoral district in the national parliament. Conversely, it has an external connection when it is the birth town of a legislator representing some other district. Under a majoritarian system, *external* legislators should have no immediate reelection incentives to send pork to their home town. In the case of *internal* members of parliament electoral incentives may have an effect although whether they foster or hinder pork barrel is not clear a priori.

Our results indicate that externally connected towns receive, on average, around 2 percent higher yearly transfers per capita relative to the 2005 median. The effect is robust to introducing municipality-level fixed effects and to a series of robustness checks and placebos. While the exact figure changes, the result is confirmed in all specifications.

In the case in which extra transfers are a way for politicians to give back a favor or to pave the way for a future comeback as a mayor, we should observe a positive effect for both internal and external connections. Perhaps surprisingly, however, we do not find an effect for municipalities that have an internal connection.

This can be interpreted as evidence that, for internal legislators, electoral incentives actually play a negative role at the moment of favoring birth towns. Internal politicians seeking re-election are likely to be constrained by voters’ retaliation threats when distributing pork: favoring one town over others may decrease support in the next election.

This interpretation is also consistent with the finding that birth towns of internal politicians who were elected by a large margin (and hence are feel *ex ante* more likely to be reelected) do receive larger transfers.

To further extend our analysis, we ask the question whether there are members of the Parliament who have a prominent role in shaping budgetary allocations. Party leaders and notable members weigh more at the moment of deciding budget allocations, discussing

bills and proposing reforms. In this respect, being member of one of the “key” commission in the Parliament is particularly important. We try to capture this difference in influence by creating an indicator for being member of a key commission and interact it with our internal and external connection variables. Results suggest that it is indeed the members of commissions that divert transfers to hometown, a result which is consistent with intuition and serves as validation to our methodology.

Finally, we propose an explanation for our findings based on the post-congressional careers of Italian legislators. A career in Parliament is not the only goal of a politician. Indeed, while being a member of one of the Chambers is the highest achievement for most, it is generally not the last. Many former representatives continue participating in public matters at a local level by, for example, seeking a position as a town mayor or a regional representatives. We argue that post-congressional careers play an important role in shaping legislators’ decisions regarding state money’s allocation and provide the main explanation behind our results.

The paper is structured as follows: in section 2 we describe the Italian institutional context during our sample period and why it is adequate to the study of our question. In section 3 we present the data. In section 4 we conduct our empirical analyses, while we run some placebos and robustness checks in section 5. Finally, section 6 presents our hypothesis that post-congressional careers are driving our results and 7 concludes with some remarks.

2 Background

The Italian institutional setting

Italy is divided into 20 administrative regions, five of which are granted special powers due to their peculiar nature: Valle d’Aosta, Trentino-Alto Adige, Friuli-Venezia Giulia (which are all bordering foreign countries and are home to important language minorities) and the two islands, Sardegna and Sicilia. Each region is divided into several provinces (110 in total), as detailed in figure I. Provinces are in turn divided into municipalities (*comuni*) totaling 8109 (as of 2010). Municipal governments receive both state and regional transfers, and also enjoy revenues from tax collection, building permits, provision of public services, fees, etc.

For what concerns us here, some important laws affecting electoral rules and regulating municipal financing were enacted in the years between 1992 and 2006: the two electoral laws approved in 1993 and 2005, and the laws regulating the way public transfers are allocated to municipalities.

The electoral laws The Italian lower house, (*Camera dei Deputati*) is composed of 630 elected representatives, while the Senate (*Senato*) is smaller, with 315 members. In 1993 the Italian electoral system switched from open-list proportional to a mixed system: 3/4 of the seats were assigned in single member districts, and the remaining 1/4 by a proportional



FIGURE I
ITALY'S REGIONS (IN BOLD) AND PROVINCES.

system.² A total of 475 members of the *Camera* and 232 senators were therefore elected through the majoritarian system. This setup was used to determine the composition of the two chambers of the Italian Parliament for the elections of 1994, 1996 and 2001. In 2005 a new law modified the system switching to a closed-list proportional representation system, under which the last elections of 2006 and 2008 took place. We concentrate on the years 1994-2006 in which the majoritarian (single member district) system was in place. Cotta and Verzichelli (2007) argue that the shift to an single-member district system made the personal profiles of individual Italian politicians more important, an aspect that we will investigate further in the following of the paper.

Main laws regulating transfers to municipalities and regions Municipalities are funded mainly through three channels: state or region transfers, tax revenues and non-tax revenues (revenues from public services or participation in societies etc.).

For what regards state transfers, in 1992 a comprehensive law was approved regulating state transfers to regions and municipalities, based on objective criteria and on fairness considerations. Although the specifics varied over the years, the basic rules remained substantially unchanged during the period 1992-2005. State transfers are in part automatically determined, in order to cover ordinary running costs, on the basis of municipality's population, surface and density, age composition, previous expenses and the presence or not of a military base. Another part is meant to cover expenses for "public works of major socioeconomic interest" and to foster convergence of under-endowed municipalities to the national average, and is naturally subject to greater discretionality.

While those criteria specify the guidelines for determining the amount of transfers, the approval of the effective allocations and their total amount is done through the budget law, approved by the Parliament in the last days of December each year. Such law determines in detail how and where the public spending goes, and is a central topic that occupies both the parliamentary and the public debate during the whole time between discussion and approval.

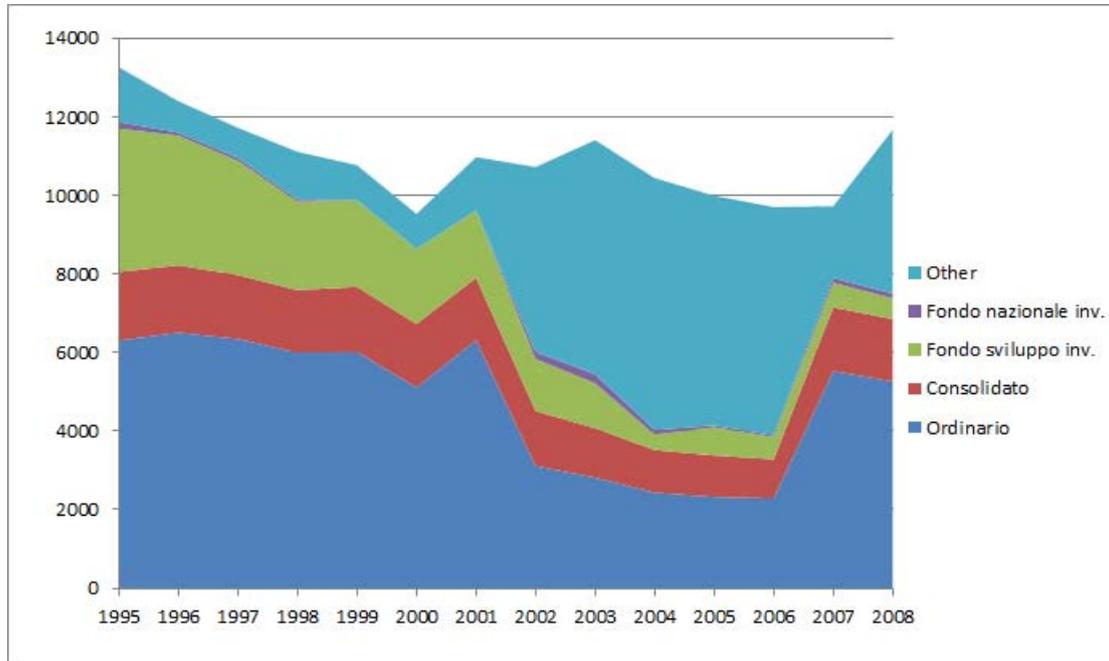
The law classifies transfers into "current" transfers, that are intended to cover basic running costs and "capital" transfers, destined to finance investments. Current transfers can be further decomposed into i) ordinary transfers, to cover basic expenses such as personnel, public transportation, maintenance of roads and buildings, etc. ii) transfers established by special laws and finally iii) a "convergence" fund, to bridge differences in endowments between municipalities.³ Capital transfers are divided into i) ordinary capital transfers, ii) special capital transfers and iii) past mortgages payments.⁴ We here and henceforth refer to transfers or $transfers_{it}$ for municipality i and period t , as the per capita amount of all state transfers to that municipality in a given year excluding past

²Its ambivalent nature earned the system the nickname "Minotaur".

³These are called, in the laws, "fondo ordinario", "fondo consolidato" and "fondo perequativo" respectively.

⁴ These are the "contributo nazionale ordinario investimenti", "contributo fondo speciale investimenti" and "contributo sviluppo investimenti" respectively.

FIGURE II
EVOLUTION OF STATE TRANSFERS IN ITALY, BY CATEGORY.



Source: Data from the Ministry for Internal Affairs.

mortgage payments. The rationale for removing past mortgages payments is that those quantities were established under the previous legislative regime, in place before 1992. After 1992, remaining due payments kept flowing to municipalities, but such quantities were not manipulable anymore, nor new mortgages could be signed.

In 2001, a Constitutional reform took place and municipalities, provinces and regions began to enjoy more financial and political autonomy. For what concerns the scope of this paper, the most relevant change was that after municipalities and regions receive a fraction of the tax income collected by the central government. This additional transfers were offset by a similar reduction in the ordinary transfers, as one can appreciate in figure III. Incidentally we notice that, although one of 2001 reform's objective was to improve regions and municipalities' economic independence from the state, the total amount of transfers from the central government did not decrease substantially: in 2008, 7 years after the decentralizing reform, the central government transfers continued to represent over 50% of municipal revenues (Ambrosanio, Bordignon and Cerniglia (2008)).

3 Data

We construct a unique dataset by combining different sources, on i) state transfers to municipalities, ii) elected representatives and iii) geographical and economic controls.

Transfers to municipalities

The transfer of State resources to municipalities is competence of the Italian Ministry of Internal Affairs, and disaggregated data are available, for each of the 8,109 municipalities and for the period of interest, at the Ministry's website.⁵

Valle d'Aosta, Trentino-Alto Adige, Friuli are special autonomous regions and are excluded from the analysis since they lie outside the normal competence of the State. This leaves us with a dataset of 15 ordinary regions, containing a total of 7,476 *comuni*, for each year from 1994 to 2006.

The total amount of central government resources to be transferred to the *comuni* in the following year is determined by the end of each year in the budget law. A large part of those funds are effectively payed, as scheduled, during the following year, and the remaining is generally settled within two additional years.

Looking at the distribution of transfers at the municipality level quickly reveals substantial heterogeneity, even in per capita terms. In figure III we plot on a map the total state transfers in per capita terms for 1996, for each of the 8,109 *comuni* (classes are delimited by quintiles). Notice that municipalities in mountainous and southern areas appear to receive more money per capita, while in the north and especially in the river Po valley transfers are lower. Determinants of this heterogeneity are in large part population density and economic development differences, and some areas also benefit from higher benefits to cover costs for national interest infrastructures. The light areas in the north-west and in the north-east are Valle d'Aosta, Trentino and Friuli-Venezia Giulia, three autonomous regions that we drop from the sample as they receive almost no direct transfers.

Data on representatives

We combine data on transfers with information about members of the national Parliament for the 1994-2006 period. Data for the lower house are obtained from the archive of the *Camera* while for senators we turn to the *Senato* historical website.⁶

We complement this data with information on representatives elected at regional (rather than national) legislative bodies. The Ministry of Internal Affairs provides historical data on anyone who has been elected for public office in Italy since unification, including date and place of birth, party membership, education and other basic personal characteristics. From this source we obtain data on all elected representatives for the regional Parliaments for each of the 18 regions in our sample.

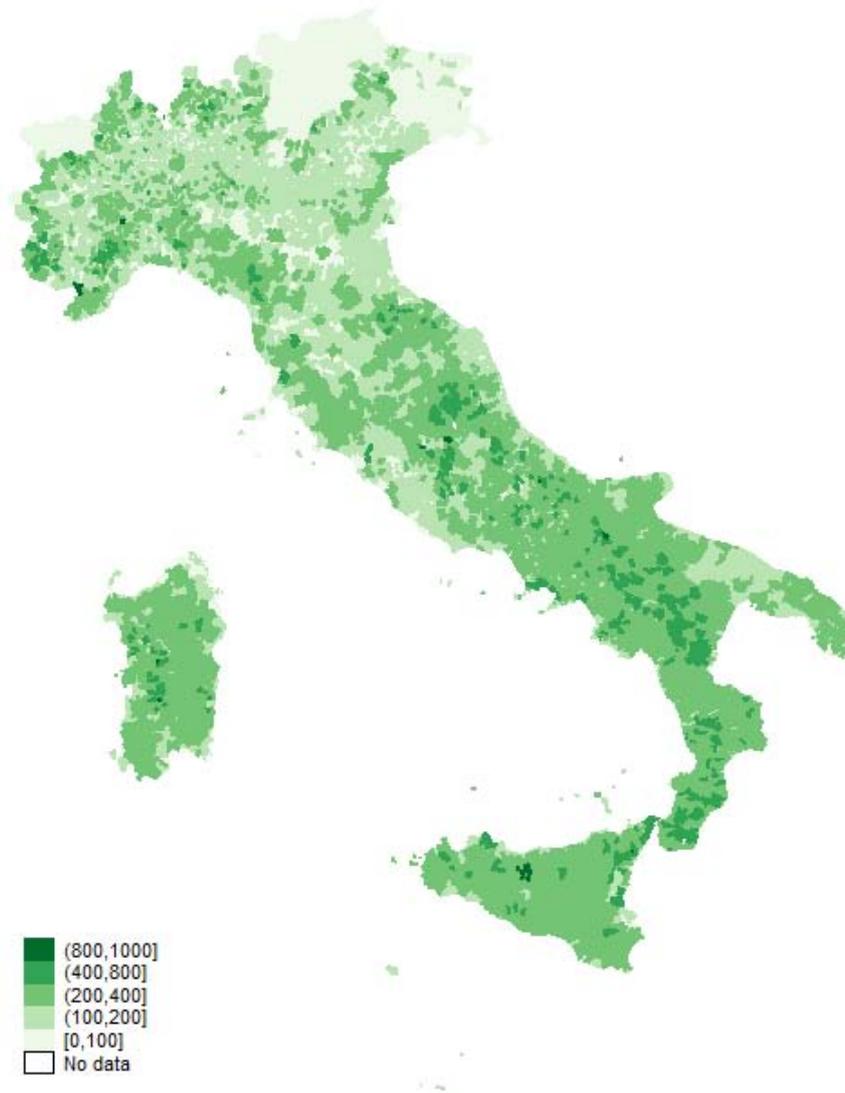
Data on government coalitions complete our first dataset: for each municipality and for each year we have the number of representatives at the national Parliament or at any regional Parliament that were born there, as well as personal characteristics of these representatives including their party. Personal characteristics of politicians are obtained from the dataset assembled by Gagliarducci, Nannicini and Naticchioni (2010).

⁵www.interno.it

⁶<http://storia.camera.it/> and <http://www.senato.it/legislature/297885/sitostorico.htm>

FIGURE III

TOTAL STATE TRANSFERS BY MUNICIPALITY OF ORIGIN, LEGISLATURE XIII.



Source: Data from the Ministry for Internal Affairs.

In figure IV we show the geographic distribution of national legislators' birthplaces. one can notice that a large number is from the capital, Rome, and, not surprisingly, from other large cities like Turin, Milan, Genoa, Naples, etc.

Economic and geographical controls

Geographical, demographic and economic characteristics of municipalities are important determinants of the amount of transfers the state decides to allocate (some of them are explicitly indicated in the law, as we saw before). For this reason we gather data on population from the Italian Statistical Office (ISTAT), surface of the municipality and presence of military bases, together with geographical data on maximum and minimum altitude as well as geographic coordinates taken from the Italian Agency for Energy (ENEA).

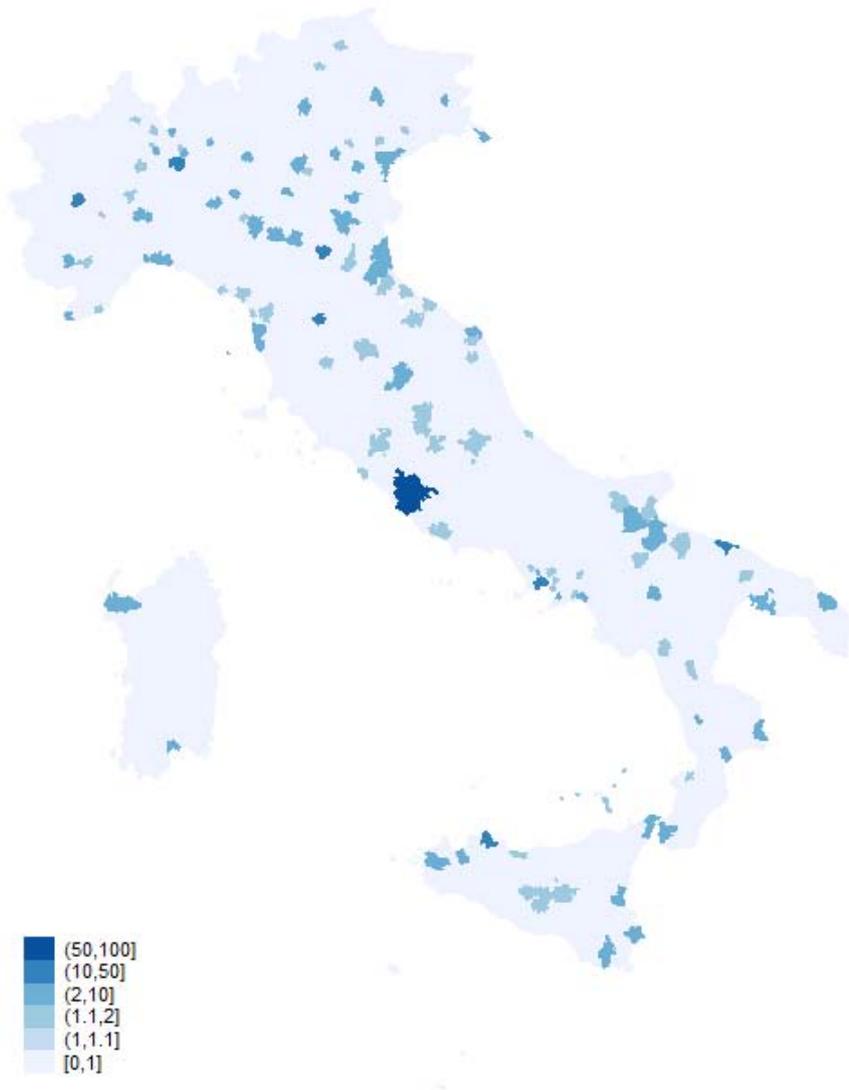
Descriptive Statistics

Table I presents a series of characteristics of Italian municipalities, grouped by election (each column corresponds to the average across the respective election period). Municipalities are smaller in the north of Italy, with an average population of about 5,300, and larger in the center-south, while the average surface is 33.88 km² and density is about 291 inhabitants per km². Total transfers per capita are higher in the south (285 euros per year in the 1994-1995 period) and in the center (224, against the 182 in the North) and decreased after 2001. This is due to the 2001 reform, as noted in section 2. Having a home born politician in Parliament is more common for southern and central municipalities (about 8 percent of the southern municipalities are birth towns of a member of the national Parliament). Among municipalities having a local elected as a national legislator, the average number of representatives per town ranges from about 1.5 in the south to 1.6-2 in the north. Finally, as of 2010, Italy had 110 provinces and 8,094 municipalities. After excluding three special regions from the sample, we are left with 7,476 municipalities for estimation purposes.

In Table II, instead, we report some characteristics of the members of the Italian Parliament, taken in part from the the dataset build by Gagliarducci, Nannicini and Naticchioni (2010). Members of the *Camera* are in general younger than their colleagues in *Senato* (50.4 versus 55 years old in 2001), and slightly less educated, with a higher percentage holding a degree or MA/PhD. Regarding their political career, we observe that politicians from the two chambers are comparable in tenure in Parliament and that the 2001 Parliament is by far the most experienced (about 4.4 years of tenure on average). We can also notice that politicians held previous party appointments twenty to forty percent of the times, depending on the term, either at the local or at the national level. Finally, more than half of senators had previous political experience at the local level, the percentage being only slightly lower for members of the lower house.

The second panel of Table II shows that, for what regards representatives elected through the uninominal system, about half were elected in the district that includes his or her birth town, while the remaining half were elected in district.

FIGURE IV
REPRESENTATIVES BY MUNICIPALITY OF ORIGIN, LEGISLATURE XIII.



Source: Data from the Ministry for Internal Affairs.

TABLE I
DESCRIPTIVES - MUNICIPALITIES

			Election		
			1994	1996	2001
Population	mean [std. dev.]	North	5,375 [32,379]	5,399 [30,688]	5,482 [29,763]
		Center	9,100 [33,384]	9,144 [32,930]	9,175 [32,253]
		South	8,929 [33,164]	8,952 [31,808]	8,979 [31,808]
Surface (km2)			37.1 [51.5]		
Density (inh/km2)	mean [std. dev.]			291.1 [647.3]	
Total transfers per capita	mean [std. dev.]	North	182 [205]	163 [99]	229 [125]
		Center	224 [121]	214 [125]	248 [138]
		South	285 [104]	279 [108]	280 [122]
% of munic. with one repr.	mean	North	3.2	3.6	3.4
		Center	6.1	6	6.3
		South	8.6	7.7	7.8
Avg. number of repr.	mean	North	2	1.6	1.6
		Center	1.7	1.8	1.7
		South	1.4	1.5	1.6
N of Municipalities			7476		
N of Province Capitals			110		
N of Munic. with at least one rep.			408	405	405

Note: the number of municipalities and of province capitals refers to 2005.

Total transfers per capita are in 2005 euros.

TABLE II
DESCRIPTIVES - PARLIAMENT MEMBERS

	Senato			Camera		
	1994	1996	2001	1994	1996	2001
Personal characteristics						
Age (years)	53.4 [8.3]	54.0 [8.0]	55.0 [7.9]	47.0 [9.9]	48.2 [9.4]	50.4 [9.2]
Primary (%)	0.0	0.3	0.3	0.0	0.0	0.2
Lower secondary educ. (%)	1.6	2.9	1.3	1.6	0.8	1.1
Upper secondary educ. (%)	21.3	18.8	20.5	29.7	28.1	27.2
Degree (%)	61.2	63.1	65.5	58.6	57.6	62.7
MA/PhD (%)	11.5	10.5	7.0	9.9	9.4	8.6
Missing (%)	4.5	4.6	5.4	0.3	4.1	0.2
Political career						
Years in Parliament	2.3 [4.5]	2.7 [4.2]	4.4 [5.2]	1.9 [4.6]	2.6 [4.7]	4.3 [5.4]
Previously appointed in national party (%)	19.4 [0.4]	27.1 [0.4]	35.4 [0.5]	23.5 [0.4]	32.8 [0.4]	41.3 [0.4]
Previously appointed in local party (%)	23.2 [0.4]	24.2 [0.4]	18.5 [0.4]	20.0 [0.4]	26.8 [0.4]	21.1 [0.4]
Previous political exp. at the local level (%)	56.4 [0.5]	54.7 [0.5]	64.2 [0.5]	47.1 [0.5]	49.8 [0.5]	59.5 [0.4]
Observations	314	314	313	630	630	617
Uninominal representatives						
Elected in the same district as birthtown (%)	49.6	56.3	56.5	49.9	53.1	55.6
Elected in another district (%)	50.4	43.7	43.5	50.1	46.9	44.4
Observations	230	231	232	475	475	476

4 Empirical Analysis

The objective of this section is to empirically assess whether and in which way members of Parliament target their birth towns with public transfers for reasons other than gaining votes for future re-election. To this aim, we compare connected towns with unconnected towns.

A municipality is *connected* if it is the birth town of at least one member of the national Parliament ("MP") in a given year. We split those connection in two categories: if the MP was elected in a constituency that includes her birth town, we say that the town has an "internal connection". If, on the contrary, she was elected in a constituency that does not include her birth town, the town has an "external connection". For a municipality i and a year t , we then define the two dummies *ext. connect_{it}* and *int. connect_{it}* which take value one if the town is connected according to these definitions and zero otherwise. We separately also identify towns which are birth towns of MPs elected in the proportional system by means of the variable *prop. connect_{it}*. Our dependent variable is municipal transfers per capita received by a municipality in a year.

The rationale for separating the political connection in three groups comes from a concern about differences in incentives: theory suggests that politicians elected under a proportional system have incentives to target either party strongholds or party leader bailiwicks (Golden and Picci, 2008), while under a majoritarian single-member district system, politicians' personal profile and popularity acquire greater importance. In particular, re-election concerns may induce her to specifically target her constituency ("pork-barreling"). By isolating politicians who were elected *outside* the constituency where they were born, we aim to identify purely personal, non-electoral interests.

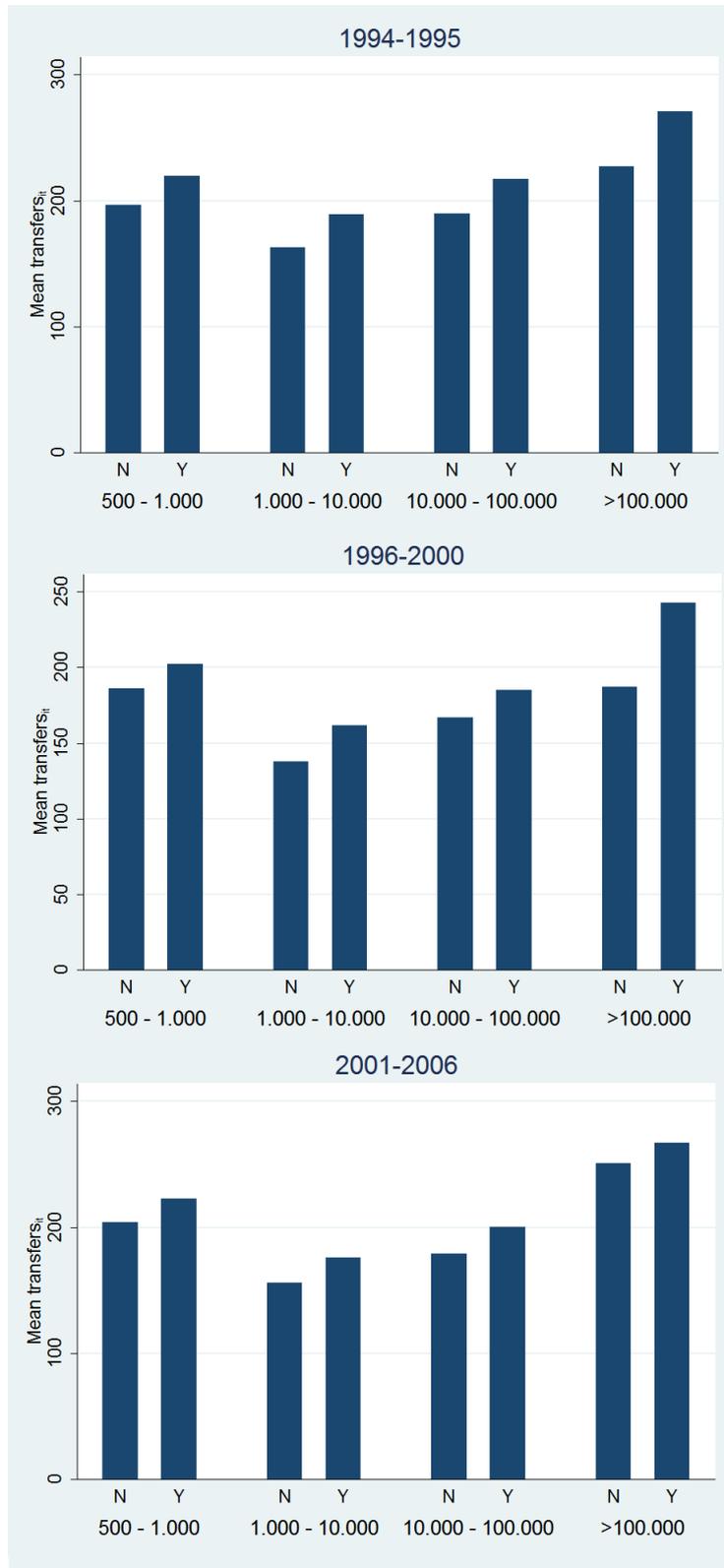
The use of birth place as a link between a legislator and a specific town is motivated by the idea that legislators retain links with their towns of birth throughout their lives and may know local politicians (Marangoni and Tronconi, 2011). Moreover, given that birthplaces are public information, the politician can arguably use this to claim credit for the increase in transfers of funds to her hometown.

Before proceeding to our econometric analysis, we show in figure V the differences in the mean transfers per capita received by connected (either external, internal or proportional) and unconnected town for each of the legislatures in our 1994-2006 sample. The pattern is clear, connected towns receive higher transfers per capita in all legislatures and all population groups.⁷

⁷We exclude towns with populations under 500 from this graph because almost none of them has a connection.

FIGURE V

AVERAGE TRANSFERS PER CAPITA BY POPULATION FOR ALL ELECTIONS



Notes: In each of the three panels, the bins are the average transfers p.c. received by municipalities which are (column Y) or are not birth towns of a member of the Parliament (column N). From left to right we report results for different population bands. Figures are in 2005 euros.

4.1 Baseline Results

In our baseline specification we consider a regression of transfers per capita $transfers_{it}$ on the first lag of the three connection dummies (recall $connect_{it-1}$) taking value 1 if municipality i enjoys a connection with Parliament as defined above and 0 otherwise. This is expressed as

$$transfers_{it} = \beta_1 ext. connect_{it-1} + \beta_2 int. connect_{it-1} + \beta_3 prop. connect_{it-1} + \delta' x_{it} + u_{it}, \quad (1)$$

where the coefficient of interest, β_1 , measures the extra yearly transfers per capita that a municipality receives on average for having an external representative at the Parliament. β_2 and β_3 , instead, capture the effect for internal and proportional representative, respectively. We use the lag instead of the contemporaneous variable because transfers for the following calendar year are approved at the end of December. As usual, x_{it} is a vector of controls, δ is a conformable vector of parameters and u_{it} is a random disturbance term assumed to be uncorrelated with our variable of interest. The choice of controls is partly driven by the criteria for allocation of transfers to municipalities contained in the 1992 law we described in section 2. In particular, we include a third degree polynomial in lagged population, lagged population density, surface in hundreds of square hectometers, a dummy taking value one if the municipality has a military base and a dummy taking value one if the municipality is a province. We also include a series of lagged population group dummies, again following the 1992 law. Besides this, some specifications include year, region or year-region dummies in order to capture fixed regional heterogeneity (e.g.: differences between southern and northern regions) as well as differences in business or political cycles.

Results for the estimation of these specifications are presented in table III. In columns 1 to 4 we present specifications with different selections of time and geographical dummies. Column 1 reports OLS estimates for model 1 with year, region and year-region interacting dummies.

One concern regarding the interpretation of the coefficients in column 1 is that certain towns may have unobserved characteristics which influence transfers and are correlated with the probability of enjoying a legislative connection. Indeed, looking at figure III one can see that internal and southern municipalities, which are generally poorer than the average, receive higher transfers per capita. It is possible that poor economic conditions may provide extra incentives to enter a career in politics, because of lack of interesting outside options in the private sector. In this case, poorer municipalities will also be more likely to have more politicians and to receive more transfers. Omitting from the regression a variable that measures the economic conditions at the municipality level would therefore lead to an omitted variable bias.

One way to address this problem is to take advantage of the longitudinal nature of our data and control for unobserved heterogeneity at the municipality level using fixed effects. Results for the within group estimator (s.e. are clustered at the municipality level) are presented in column 2-4, with different sets of time and region dummies. Naturally, all time invariant variables (including region effects) are subsumed into the fixed effect and,

hence, excluded from the estimation.

One potential issue with using the fixed effect estimator in this context is the fact that the $connect_{it-1}$ variables exhibit scarce longitudinal variation in the majority of municipalities. This is a consequence of two combined factors. In the first place, in the 1996 and 2001 elections over 60% of all legislators were reelected. Secondly, all relatively large cities such as Rome, Milan or Naples, $connected_{it-1}$ will exhibit no time variation as they are always connected, while the converse will happen with the vast majority of small towns, which never are. Estimation results, however, show a positive and statistically significant effect of having a connection on transfers.⁸

While the estimated coefficient of having an external coefficient is statistically significant in all specification, its magnitude passes from 10.39 to about 4.6 once we include municipality fixed effects, suggesting that indeed unobserved town-level characteristics play a role. For this reason, we concentrate on results in column 4, which include the richest set of fixed effects: year, year-region interactions and municipality fixed effects. Having a connection in Parliament therefore increases yearly per capita transfers to a municipality by roughly 4.1 euros on average. This amounts to about 1.8% of the overall sample mean and 2.1% of the sample median in 2005, corresponding to a 2 million euros increase in transfers over a full legislature for a middle sized province capital.⁹

Interestingly, we find that neither having an “internal” nor a proportional politician in the Parliament affects transfers to municipalities: the coefficient for the internal connection is around zero while the one for proportional is about 3.3 but imprecisely estimated (this may be due to the fact that only one quarter of the Parliament is elected in the proportional quota). We will come back to these results later.

The other estimated coefficients reveal that being a province capital has no significant effect on transfers, while higher density and surface area are associated with higher allocations.

4.2 Internals and externals: incentives

Imagine that a politician cares about rents from office but that electors, instead, expect her to provide a public good and will punish rent-seeking. In our setup, those rents are represented by funds for the hometown, while the public good is transfers to constituencies. The politician has to choose how to split the funds between transfers to constituency and rents, and she knows that, if caught securing rents, she will not be re-elected.

It is reasonable to think that voters are more likely to catch an internal rather than an external diverting funds home, just because the hometown of an internal lies inside the constituency of election. As a consequence, we expect that externals are able to secure

⁸Some cities are so large that were divided into several constituencies, so that defining an external connection in such cases is potentially troublesome. We address this issue by collapsing multiple constituencies into one, corresponding to the city boundaries. As a robustness check, we also run all estimations again by dropping all multi-constituency cities, and results are unaffected.

⁹These calculations are for a 100,000 inhabitants city, such as Trento or Novara.

TABLE III
BASELINE SPECIFICATION

	(1)	(2)	(3)	(4)
	Transfers p.c.	Transfers p.c.	Transfers p.c.	Transfers p.c.
ext. connect t-1	9.519*** (3.464)	6.098*** (2.052)	5.150** (2.140)	4.146** (1.907)
int. connect t-1	2.587 (2.986)	-1.108 (2.318)	-0.614 (2.507)	0.0594 (2.213)
prop. connect t-1	5.167 (3.799)	4.037 (2.804)	4.007 (2.936)	2.925 (2.682)
winning_share_lag	0.672 (2.840)	52.90*** (1.691)	24.15*** (2.110)	4.836 (3.104)
Pop. density t-1	0.633*** (0.155)	1.364** (0.606)	0.778 (0.551)	-0.0733 (0.565)
Surface area in km2	1.942*** (0.239)			
Province capital	8.749 (9.837)			
Year Effects	Y	N	Y	Y
Region Effects	Y	N	N	N
Year*Region Effects	N	N	N	Y
Municipality F.E.	N	Y	Y	Y
R^2	0.499	0.0181	0.112	0.185
Obs.	89164	89164	89164	89164

Standard errors in parentheses

S.E. clustered at the municipality level.

Dep. variable is transfers per capita excluding payment for previous mortgage obligations

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

more rents while internals, as long as electoral retaliation is a threat, will opt for providing relatively more public good instead.

We can test these two implications with data. To this aim, we first define a dummy that equals one if the elected politician won the district by a margin larger than 10 percent over the second. Then, we interact this indicator with *int.connect* and *ext.connect*. The coefficient of those interactions intends to capture the extra effect of having a "safe seat" and therefore lower electoral concerns on the decision of sending rents home.

Results in table IV show that hometowns of internal politicians who won the election by a relatively high margin are associated with, on average, 5.9 extra transfers per capita each year, while this is not the case for external ones.¹⁰ External politicians, in fact, are subject to looser electoral control by voters at the time of sending money home, since their birth town is outside their constituency of election. Internal politicians, on the contrary, may find hard to favor one town over another without being noticed by the local electorate. This line of thought is consistent with finding a large and positive effect of internals politicians that won by a large margin and no effect for the corresponding externals.

To further investigate the effects of those differences in electoral threats for internals and externals, we aggregate transfers at the constituency level and run a regression (controls and time plus region-time dummies are included as before, and standard errors are clustered at the constituency level) of transfers per capita on an indicator which equals one if the constituency is represented by an external MP. Each constituency can be represented by either an internal or an external (or by someone born abroad) politician, so the coefficient of this indicator can be interpreted as the conditional effect of having elected an external.

	Transfers p.c.
ext. connect t-1	-950.0***
	[356.0]
prop. connect t-1	235.9
	[270.5]
Year Effects	Y
Region Effects	Y
Year*Region Effects	Y
Sample mean	4557.2
R^2	0.409
Obs.	4452

S.E. clustered at the constituency level.

We see by the results in table V that indeed districts represented by external receive less transfers for an estimated coefficient of -950 euros per capita per year, suggesting that externals are substituting the public good with rents.

¹⁰We have also tried to change the threshold to 5, 15 and 20 percent and results are qualitatively similar, with coefficients of the internal interaction ranging from 6.2 to 12.4 (significant at 5 percent) while the coefficient of external interaction remains indistinguishable from zero.

TABLE IV
INCLUDING MARGIN OF VICTORY INTERACTION

	(1)	(2)	(3)	(4)
	Transfers p.c.	Transfers p.c.	Transfers p.c.	Transfers p.c.
ext. connect t-1	8.399** (4.020)	7.017*** (2.417)	4.610* (2.575)	3.189 (2.233)
int. connect t-1	0.790 (3.423)	-2.308 (2.268)	-3.174 (2.493)	-3.387 (2.144)
prop. connect t-1	5.326 (3.814)	4.022 (2.819)	4.130 (2.951)	
ext. conn. * margin>10	3.075 (6.099)	-2.686 (2.962)	2.030 (3.024)	2.322 (2.434)
int. conn. * margin>10	6.670 (6.219)	4.831 (5.783)	10.10* (5.849)	12.63** (5.341)
winning_share_lag	0.527 (2.847)	52.84*** (1.693)	23.94*** (2.117)	4.656 (3.106)
Pop. density t-1	0.635*** (0.155)	1.369** (0.607)	0.802 (0.549)	-0.0411 (0.564)
Surface area in km2	1.945*** (0.238)			
Province capital	8.494 (9.790)			
Year Effects	Y	N	Y	Y
Region Effects	Y	N	N	N
Year*Region Effects	N	N	N	Y
Municipality F.E.	N	Y	Y	Y
R^2	0.499	0.0181	0.112	0.185
Obs.	89164	89164	89164	89164

Standard errors in parentheses

S.E. clustered at the municipality level.

Dep. variable is transfers per capita excluding payment for previous mortgage obligations

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

4.3 The effect of powerful politicians

The results of the previous sections suggest that externally connected politicians are the ones diverting money to their hometown, but politicians are likely to be quite heterogeneous not only regarding experience and education, but especially in terms of political influence. A long standing tradition in the Italian Parliamentary routine is the habit of squeezing into the budget law (the "legge Finanziaria"), in the last moments before approval, many little modifications, often unrelated with the main objective of the law and rather aimed at pursuing personal interests of the legislators. Former Prime Minister Bettino Craxi used to call it the "arraffa-arraffa" law (a possible translation is "steal as much as you can" law), while for Massimo d'Alema, another former left-wing Prime Minister, "the Parliament becomes the most squalid bazaar at the moment of approving the budget law".¹¹ The situation was so embarrassing that in 2004 the government, in order to keep local interests outside of the budget law discussion, decided to allocate sum between 200 and 170 million euros per year for the following years for projects proposed by representatives and aimed at promoting the "economic and social development of the territory". The money was then later fragmented into many small interventions at the local level, from restoring a church to promoting a festival, etc. This mechanism was useful for politicians to achieve recognition and popularity in their home towns and constituencies, and to strengthen electoral consensus. Powerful politicians have more connections with the party, voters and potentially with the government, and their stronger influence may also be reflected in their success in transferring money to their hometown by exerting more pressure at the moment of approving the law.

To empirically verify this hypothesis we proceed to merge our dataset with data by (Gagliarducci, Nannicini and Naticchioni, 2010) in order to obtain information on members of the Parliament's permanent commissions. Those commissions are 15 and serve as "smaller Parliaments" for specific issues such as justice, defense, public budget, agriculture, etc. Each of them is composed of about 15-27 members in the *Senato* and 35-90 in the *Camera* which discuss and modify specific proposals. After this process, the law passes to the Chambers for discussion and voting. These commissions have therefore a considerable influence in shaping the legislative agenda, and their activity is naturally impelled by the government. It is reasonable to believe that memberships in key commissions are mainly reserved to influential politicians, and for this reason we construct a dummy variable that equals one if the politicians belong to a "key" commission and zero otherwise. By interacting this variable with our connection measures, we can identify whether members of a commission are more successful at sending money home than the others by looking at the coefficient of the interaction terms. It is not entirely clear how to select the commissions that deal with matters related to transfers and public money from the ones that discuss mainly technical or legislative issues. While the choice will always involve a certain degree of arbitrariness, we believe that we are on the safe side excluding the constitutional affairs, the foreign affairs, the European Union and the defense commissions. Even casual

¹¹<http://tinyurl.com/bs46635>

inspection of the activity of those commissions reveals that they do not discuss anything related to budget or the budget law. We also do not consider as key the commissions on employment and justice, for similar reasons. Hence, we are left with public budget, public finance, culture, public works, agriculture, industry, health, environment and transports, which will form our "key commissions" group.

In table V we report results of the baseline model with the interaction terms. The coefficient of the interactions of internal and external connections with being member of a key commission are 8 and 7.3, that is almost two times the baseline effect of having an (external connection) estimated in section 4.1. At the same time, the coefficient for having a connection which is not member of a commission is about zero for external, -4 for internal and 5.3 for proportional connections (both not significantly different from zero).¹² In this model with interactions, the overall effect of having an internal connection, either belonging to a commission or not, is given by the sum of the coefficient of *int.connect* and *int.connect * comm.*. By summing the coefficients for all the three types of connections, we see that externals are still the ones sending more money overall.

5 Placebos and Robustness checks

While our fixed effect specification may deal with time invariant unobservables, it is still possible that identification is threatened by time-varying shocks which affect both transfers to a municipality and the probability that politicians from that municipality run for Parliament. We propose some placebos for our baseline results which attempt to address these issues by considering the effect of variables which are related to the political importance of a municipality (and, hence, also to such time varying shocks) but which, in principle, should be unrelated to the transfers the town's municipal government receives. Results are reported in Table VI, in which we only report results of the estimation with municipality fixed effects plus time and region-time interaction dummies. In all specifications we use the same controls as in the previous sections, and standard errors are similarly clustered at the municipality level.

In our first placebo we use data on candidates in national legislative elections to determine the runner ups in all uninominal district votes. In a single member district, in each election there is always a winner - who takes a seat in Parliament - and some losers. We construct a variable *false ext connect_{it}* in exactly the same way as *ext connect_{it}* but that equals one when a municipality has a runner-up rather than a winner in a uninominal district election. The introduction of this variable is motivated by the fact that a municipality may be particularly good in training politicians, a fact that gives it an edge over others in terms of visibility at the national political level. Such a municipality would then have a higher probability of presenting a candidate but not necessarily of winning. If it is

¹²We try different specifications of the key commissions group, for instance by removing culture, industry, health and environment, obtaining a coefficient of 8.3 for the external interaction and 10.6 for the internal interaction, significant at the 10 and 1 percent level respectively. If we further remove agriculture and transports, the interaction of internal and commission stops being significant.

TABLE V
INCLUDING COMMISSION INTERACTION

	(1)	(2)	(3)	(4)
	Transfers p.c.	Transfers p.c.	Transfers p.c.	Transfers p.c.
ext. connect t-1	10.64** (4.710)	1.888 (2.237)	0.349 (2.381)	-0.308 (1.662)
int. connect t-1	-0.824 (4.069)	-5.547 (3.747)	-5.068 (3.948)	-4.327 (3.374)
prop. connect t-1	3.391 (5.355)	4.433 (4.164)	4.933 (4.343)	5.331 (3.842)
ext. connect * comm.	-0.871 (5.852)	6.399 (4.214)	7.398* (4.335)	8.006** (3.733)
int. connect * comm.	5.542 (4.907)	7.550** (3.655)	7.174* (3.925)	7.279** (3.283)
prop. connect * comm.	2.091 (6.974)	-2.199 (5.287)	-3.260 (5.479)	-4.096 (4.680)
Pop. density t-1	0.553*** (0.153)	0.816 (0.595)	-0.293 (0.599)	-1.393** (0.637)
Surface area in km2	1.787*** (0.228)			
Province capital	15.40* (9.223)			
Year Effects	Y	N	Y	Y
Region Effects	Y	N	N	N
Year*Region Effects	N	N	N	Y
Municipality F.E.	N	Y	Y	Y
R^2	0.498	0.0206	0.110	0.184
Obs.	89554	89554	89554	89554

Standard errors in parentheses

S.E. clustered at the municipality level.

Dep. variable is transfers per capita excluding payment for previous mortgage obligations

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

this political visibility that guarantees extra transfers and not the fact of having a connection, we should observe that having a runner-up also has a significant impact on transfers. The negative and statistically insignificant coefficient estimates for *false ext connect_{it}* and *false int connect_{it}* in column 1 of Table VI reassuringly suggest that this is not the case.

Following a similar intuition our second placebo uses a dummy *reg connect_{it}* taking value one if the town has a home born politician elected in a regional (as opposed to national) Parliament. As with the previous placebo, a significant coefficient here would point to some confounding factor driving both transfers and towns' connections as there is no plausible way through which regional legislators may affect national transfers directly. We find that having a regional connection, as expected, has no significant impact on transfers.

We then proceed to test the robustness of our section 4.1 results by including the both the runner-up and the regional connection variables as controls in our fixed effects specifications. Results in column 3 of Table VI confirm that including the "false" connections in the regression does not alter the results, and having an external connection in the Parliament is the only one that matters.

Finally, we also consider a placebo test in which we change the dependent variable. We have seen in section 3 that total transfers to a municipality can be split into several accounting concepts. One of them is "past mortgage payments", which is an accounting device through which way municipalities were financed before 1992. Each municipality was allowed to take on mortgage debt which the central government assumed as its own. Each year, the government would transfer the corresponding amount to the municipality in order to pay the installments. This system ceased to exist in 1992, but many mortgages were still unpaid so transfers went on for the following years and were quite sizable as shown in figure II. Recall that our definition of transfers excludes these quantities. We now instead focus on them and check whether having some type of connection has any effect on these type of transfers. As shown in column 4 of Table VI, having a connection of any kind has no effect at all on payments for previous mortgage obligations. The placebo and robustness checks proposed in this section are not able, and are not meant to definitively exclude the presence of some residual municipality-level unobservables that bias our estimates. Nonetheless, they allow us to rule out some important alternative explanation, and in particular the one that some municipalities are just especially good at training politicians and at increasing their visibility in the political scenario by doing so.

6 Mechanism

The results in section 4.1 suggest that only municipalities that have an external connection in the Parliament receive, on average, more transfers, while no extra money is diverted to those being hometown of an internal or proportionally elected politician. There may be different factors behind this perhaps surprising result.

While the typical explanation for many distributional policies and pork-barrel spending

TABLE VI
PLACEBOS

	(1)	(2)	(3)	(4)
	Transfers p.c.	Transfers p.c.	Transfers p.c.	Mortgage transfers p.c.
false ext. connect t-1	-1.699 (1.925)		-1.333 (1.856)	
false int. connect t-1	-0.402 (1.448)		-0.347 (1.449)	
reg. connect t-1		0.532 (1.208)	0.628 (1.212)	
ext. connect t-1			4.024** (1.843)	-0.696 (0.780)
int. connect t-1			0.0371 (2.220)	0.00915 (0.651)
prop. connect t-1			2.859 (2.637)	-0.647 (0.783)
Pop. density t-1	-0.0539 (0.575)	-0.0469 (0.574)	-0.0778 (0.568)	-0.568*** (0.213)
Municipality F.E.	Y	Y	Y	Y
R^2	0.185	0.185	0.185	0.590
Obs.	89164	89164	89164	83852

Standard errors in parentheses

S.E. clustered at the municipality level.

Dep. variable is transfers per capita excluding payment for previous mortgage obligations except for column 4

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

TABLE VII
POST-CONGRESSIONAL CAREERS

	(1)	(2)	(3)	(4)
	Transfers p.c.	Transfers p.c.	Transfers p.c.	Transfers p.c.
ext. connect t-1	8.681** (3.612)	4.306* (2.325)	3.225 (2.406)	3.668* (2.135)
int. connect t-1	3.214 (3.111)	-1.795 (2.613)	-2.242 (2.772)	-0.668 (2.338)
prop. connect t-1	4.373 (3.702)	3.266 (2.916)	3.192 (3.048)	3.277 (2.762)
ext. t-1 * posterior exp.	19.13* (10.18)	10.55 (6.628)	12.15* (7.069)	4.781 (6.269)
int. t-1 * posterior exp.	-3.543 (6.030)	5.159 (4.627)	8.732* (5.032)	5.180 (4.229)
Year Effects	Y	N	Y	Y
Region Effects	Y	N	N	Y
Year*Region Effects	N	N	N	Y
Municipality F.E.				
R^2	0.498	0.0205	0.110	0.183
Obs.	89554	89554	89554	89554

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

S.E. clustered at the municipality level.

Dep. variable is transfers per capita excluding payment for previous mortgage obligations

lies in reelection concerns of the politicians, by the definition of connection used in the empirical analysis above we know that reelection concerns cannot be driving our results. However, Merlo et al. (2008) recently stress that “a large fraction of individuals who prior to being MPs working in another sector (...) end up taking another political job” after leaving Parliament, suggesting that post-congressional career may be a relevant concern for Italian members of Parliament. Indeed, of the members of Parliament who continue their career in the political sector, 35.8% do so at the local level (municipality, province or region) and 53.6% take a position in the party.

We consider that post-congressional careers may be the key to understanding the motivation behind the birth town bias. By increasing transfers to their municipalities of birth, MPs increase the value of their outside option in case they fail to get reelected.

By transferring more funds to their home town, the politician could be able to increase not only the present budget but the future budget. If the politician expects that it is likely that she may end up as mayor or member of the government of her birth town and the value of this job is related to the town budget (empire building), then there is a clear incentive to make efforts to increase transfers to the town as long as this generates a persistent increase in the budget. In order to test this hypothesis, we construct interactions between the internal and external connection dummies and the fraction of legislators who later took up a position at the local level after exiting Parliament. We then include this interaction in our baseline regression and test for the significance of the corresponding coefficient. Data on post-congressional careers are obtained by extending our sample to 2012 with data on election at all local levels (municipality, province and region) from the Ministry for Internal Affairs website. In Table VII we can notice that the effect of politicians who, after Parliament, picked up a position at the local level seem to be stronger. However, possibly also because of the small variation in the data, the coefficients are not always statistically significant. Interestingly, in column 3 and four we observe that the coefficient for an internal connection (interacted with posterior experience) is larger than the one for the external connection.

7 Conclusions

In this paper we present evidence showing that having a home born representative in Parliament can increase transfers to a given municipality even if that representative has no direct electoral incentive to engage in pork-barreling. We estimate this effect to be around 2.1% of the 2005 median of per capita transfers. This effect is double if we concentrate on members of parliamentary commissions. We find no effect for politicians that were elected in the proportional system.

Results are robust to the inclusion of fixed unobserved heterogeneity at the town level and to a series of placebo and robustness checks.

Internal and external politicians have different incentives at the moment of deciding between securing rents for themselves (or, in this case, for their hometown) and providing

public goods. It is reasonable to think that voters are more likely to catch an internal rather than an external diverting funds home, just because the hometown of an internal lies inside the constituency of election. As a consequence, we expect that externals are able to secure more rents while internals, as long as electoral retaliation is a threat, will opt for providing the public good instead. We test these two implications with the data and we find support for both: in particular, we aggregate transfers by constituency and find that those which are represented by externals receive, on average, substantially less transfers than those which elected an internal. Also, we show that internal politicians who won the election by a large margin over the second are associated with significantly larger transfer to their hometown, while for externals this is not the case.

We propose a simple explanation for our finding that representatives favor their hometown. We find some evidence on the fact that politicians that later pick up a position in a local-level government body (for instance, mayors) are the ones diverting more transfers to their hometown, although the limited time variation in our data do not always allow us to precisely estimate the effect.

Our result has both behavioral and welfare implications. On the behavioral side, our results underscore that, while reelection incentives may be important, in some contexts it may be useful to consider other kinds of personal (in this case, post-congressional career) motivations. On the welfare side, the results have implications on the efficiency of the resource allocation process between municipalities. Considering that the effect is calculated as an average over all representatives we may conclude that the total size of the distortion may amount to several million euros per legislature.

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