Sending the pork home: birth town bias in transfers to Italian municipalities

Sending the Pork Home: Birth Town Bias in Transfers to Italian Municipalities

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Abstract

We ask whether the birthplaces of Italian members of Parliament are favoured in the allocation of central government transfers. Using a panel of municipalities for the years between 1994 and 2006, we find that municipal governments of legislators' birth towns receive larger transfers per capita. Exploiting variation in birthplaces induced by parliamentary turnover for estimation, we find that this effect is driven by legislators who were born in a town outside their district of election. As a result, we argue that our findings cannot be a consequence of re-election incentives, the usual motivation for pork-barrel policies in the literature. Rather, politicians may be pursuing other personal motives. In line with this hypothesis, we find that the birth town bias essentially disappears when legislative elections are near. We explore several possible mechanisms behind our results by matching parliamentarians to a detailed dataset on local level administrators.

Keywords: Pork-barrel politics; distributive policies; careers in politics; political economy
JEL classification: H5; H720; H770; D720

1. Introduction

In parliamentary systems elected representatives often have power to affect resource allocations to favour their preferred areas or projects, a practice known as *pork-barrel*. In particular, in single member district systems, it is common to find legislators targeting their district of election. The importance of this behaviour is difficult to quantify in this context because it potentially involves all members of Parliament and, consequently, all districts. Furthermore, it is unclear whether favouring a particular area is a source of concern since it is typically the district that the legislator has been elected to represent that benefits from these extra resources.[1]

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[1] Weingast, Shepsle and Johnsen (1981), however, notice that when benefits are linked to a geographical area but costs are spread across the nation via taxation, district representatives may choose an inefficiently high level

Identifying empirically pork-barrel transfers to geographical areas presents some challenges. Given that district boundaries are generally drawn so that all districts have the same population, there is usually no variation in the strength of the connection between districts and the body that decides how funds are allocated. Empirical analyses of pork-barrel politics typically use expenditure or investment data at the electoral district level and rely on either (i) differences in some measure of influence of representatives such as seniority or the number of individual votes received (Golden and Picci, 2008), (ii) over representation of certain districts relative to their population (see Atlas et al. 1995 or Knight 2008 for the US case), (iii) comparing representatives who have reached their term limit with those instead seeking re-election (Aidt and Shvets, 2012).

In contrast, in this paper we use changes in the distribution of legislators' birthplaces and expenditure data disaggregated at the municipal level to study whether Italian members of Parliament send additional funds to their birthplace while in office. Using expenditure data at a more disaggregated level than electoral districts provides us with a rich source of variation to identify pork-barrel politics. More importantly, this level of detail allows us to understand whether this behaviour seeks to favour voters or to pursue other personal benefits for the politician that are not aligned with those of her district. To this end, we exploit the fact that the birthplace of roughly half of Italian members of Parliament lies outside their electoral district.

The institutional setting in Italy, discussed in section 2, is ideal for studying pork-barrel at the municipal level. Public transfers in Italy account for as much as one quarter of the financial needs of the 8,101 municipal administrations, and their distribution is a matter of discussion and negotiation in Parliament. Even if objective criteria for allocation are established by law, elected representatives have the possibility to divert resources towards specific targets for electoral, partisan or other reasons. The way in which these incentives translate into geographical distributions of funds depends, among other things, on electoral rules (Lizzeri and Persico, 2001). After the 1994 reform, Italy moved to a single member district system, which stayed in place for the subsequent three elections.[2] Members of Parliament in majoritarian systems are typically re-elected within the same district, so elected representatives have strong incentives to please voters in this district (Gagliarducci, Nannicini and Naticchioni, 2011). We use the fact that Italy had a single member district system in the 1994-2006 period to isolate re-election incentives from other motives that may be driving the allocation of pork-barrel spending to municipalities.

In our sample period, Italian municipalities are grouped into 232 electoral districts for the Senate and 475 for the House, each electing only one representative. If the winner of one of these races is born in a municipality that belongs to her district of election, we classify this

of spending because they do not internalise the costs on other districts. Battaglini and Coate (2007) point out that, in a dynamic model, this is true only under certain conditions.

[2]More precisely, the system, promptly baptised "Minotaur" for its dual nature, prescribed that three quarters of the seats were allocated via single member districts and one quarter proportionally.

municipality as having an *internal* connection. Instead, if the winner is born in a municipality that does not belong to this district, this municipality has an *external* connection. This classification is useful because a politician generating an external connection with Parliament has no direct re-election interest in increasing the transfers to her birthplace, since her electoral base is elsewhere. Clearly, the same argument does not apply to the case of internal connections.

We collect data on central government transfers to municipalities for the years 1994 to 2006 to test whether connected towns receive more transfers. The fact that some towns are the birthplace of a legislator and some are not generates cross-sectional variation in the strength of the link with the Parliament that can be used for estimation.[3] In addition, parliamentary turnover generates longitudinal variation in the connection status of some municipalities, which allows us to include fixed effects. In our baseline estimates, identification of the effect of having a connection in Parliament is then obtained by comparing the same town when it is connected and when it is not, thus removing all fixed unobservable municipal-level factors.

In section 4 we show that municipalities with an external connection receive yearly roughly 2% more transfers per capita than other municipalities, while no increase is found for internal connections. Over a legislature, this amounts to about 1 million Euro for a municipality of 50,000 inhabitants. This result cannot be explained by re-election incentives alone because, by definition, the municipality of birth of external politicians lies outside their electoral district. Given that these incentives have been the typical explanation given for distributional policies in the literature, documenting that pork-barrel spending can arise for other reasons is one of the main contributions of this paper. We find no effect for internal connections even if, for them, the municipality of birth is part of their electorate.

One reason explaining the discrepancy in our results between externals and internals is related to the trade-off between favouring their district – hence helping their re-election chances – and securing transfers to their town of birth for personal reasons.[4] In order to provide evidence of this trade-off, we study how the birth town bias varies across the electoral cycle. Electoral incentives for parliamentarians should be stronger when legislative elections approach (and voters' attention increases). Hence, politicians seeking to be re-elected in Parliament may decide to reduce the amount of bias in transfers to their birth town in years close to elections. Indeed, we find that the birth town bias essentially disappears when legislative elections are near.

This trade-off may also be different for internal and external politicians. Internal politicians are more likely to have local level experience - as, for instance, town mayors or council members - while externals have more parliamentary and government experience, and are generally national party members. Moreover, by definition the birthplace of internals is surrounded by other municipalities that also belong to the politician's district. As a consequence, internal politicians may have weaker incentives to favour their town over others, since they are

[3] Throughout the paper we use the words town and municipality interchangeably.

[4] This trade-off can be framed within the career concerns model by Persson and Tabellini (2002) in which politicians have to choose between providing a public good to the constituency and extracting personal rents.

subject to stricter voters' control and are already well established local figures. On the other hand, these issues play less of a role for externals, whose birth town is outside their district of election.

In Section 5 we consider several possible explanations for the fact that municipalities with an external connection in Parliament receive more transfers. A career in Parliament is not the only goal of a politician and this is especially true in Italy, where turnover often exceeds 50 percent. Politicians might use transfers to their birth town as a way to improve their prospects of a career in the local administration after serving in Congress. We identify those parliamentarians who ran for office in their birthplace after exiting Parliament, and test whether these connections generate larger increases in transfers. An external connection through a politician later having a post-congressional career at the local level is associated with 11.9 more Euros per capita each year to the municipality of birth relative to other externals. No additional effect is found in the case of internals. In fact, using transfers as a way to become more popular might be especially relevant for external politicians who, being less known locally, have stronger incentives to show interest in the birth town. On the other hand, internals have less to win and more to lose. They have less to win because they usually have substantially more experience at the local level and do not need to obtain more notoriety; and they have more to lose because voters from neighbouring towns might punish favouring the birth town over others in the district.

We then explore whether birth town bias is due to the presence of personal connections in the municipality of birth. One of these connections arises when the local mayor and the parliamentarian belong to the same party. In this case, members of the Parliament may follow party guidelines and divert money to their birthplaces when they are aligned. We find that internal connections with an aligned mayor are associated with substantially more transfers to their birth town, whereas for externals the evidence is much weaker. Another type of personal connection is generated when the family or friends of an elected representative live in the birth town. In an attempt to capture these links, we test whether connected towns whose mayor shares the last name with a member of the Parliament receive more transfers than other municipalities, finding no evidence supporting this hypothesis.

Finally, we run a series of placebos and robustness checks in section 6 to assess the validity of our results. We construct dummies analogous to the ones used for our main specification but which capture connections that should, in principle, have no effect on transfers. Specifically, we first use an indicator for the municipality being the birthplace of a runner-up in one of the district elections. Then, we do the same for members of the regional (as opposed to national) Parliament and confirm that, as expected, none of those connections yields extra transfers. We interpret these results as evidence that our findings are not driven by confounding factors correlated with the connection status of municipalities. The Online Appendix includes a series of additional estimates which underline the robustness of our findings.

Our results suggest that, overall, politicians' decisions are shaped by motives that extend beyond being re-elected. In this sense, our work is an empirical contribution to the litera-

ture on the determinants of politicians' decisions. Traditional models assume that re-election concerns (Downs, 1957) or policy preferences (Wittman, 1983) are the main drivers of politicians' decisions. Recently, however, Diermeier, Keane and Merlo (2005) and Keane and Merlo (2010) emphasize that the political career is a long process of which serving in Parliament is only a step. Because politicians are rational economic agents, they make career decisions by comparing alternative choices. Members of Parliament typically come from the national party ranks, local politics or the private sector, and similarly may return to one of these occupations after office or to continue working elsewhere. The choices they make are therefore inherently forward-looking, as serving in Congress and actions as a legislator may affect future career prospects. Our empirical results, hence, provide reduced-form evidence on the importance of personal motives in representatives' decisions while in office.

2. The Italian institutional setting

2.1. Municipalities

At the time of the 2001 Census, Italy had 8,101 municipalities (*comuni*). The main sources of revenue for municipal governments are transfers from the national and regional governments, in order to cover part of their running costs and investment projects, tax collection, building permits, provision of public services and fees. The mayor is the head of the municipal committee (*Giunta*, the executive body), and is also part of the town council (*Consiglio comunale*), which has legislative powers. Municipalities are grouped into 110 provinces and 20 regions, the most important sub-national administrative units. Five of them 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 home to language minorities) and the two islands, Sardegna and Sicilia.

2.2. The Parliament and the allocation of transfers

The national Parliament is composed of 945 elected legislators and is one of the largest in the world. The lower house, (*Camera dei Deputati*) has 630 representatives, while the Senate (*Senato*) is smaller with just 315. A complete legislature lasts for five years although it is not uncommon that a government crisis results in new elections being held beforehand. In fact, in the 1994-2006 period of our sample there was one incomplete legislature that lasted for two years (1994-1996) and two complete ones (1996-2001 and 2001-2006).

The part of state transfers to municipalities that covers ordinary running costs is determined by law on the basis of municipality's population, surface and density, age composition, previous expenses and the presence or not of a military base (see *Decreto Legislativo n. 504/1992)*. Another part is meant to finance expenses for public works of primary socio-economic interest and to foster convergence of under-endowed municipalities and is arguably more discretionary.

The mentioned legal criteria specify guidelines for determining the transfers each municipality is entitled to, but the effective amount is determined every year in the budget law and

approved by the Parliament in the last days of December. This law details the total amount and destination of public spending, and sparks an intense debate both in the Parliament and press during the whole time between discussion and approval. The budgetary process has been repeatedly questioned both from the press and the political world itself mostly because parliamentarians often sponsor the allocation of additional government transfers to finance personal projects at the local level.[5]

2.3. The electoral law

In 1993, a major reform changed the Italian electoral regime. The open-list proportional system that was in place since 1948 was replaced with a mix of proportional and majoritarian. Three-quarters of the seats (475 for the *Camera* and 232 for the *Senato*) were assigned via single member districts, each choosing one legislator, and the remaining quarter was assigned on a proportional basis. This setup was only in place for the elections of 1994, 1996 and 2001. In 2005 a reform modified the system again and Italy moved to closed list proportional under which the last elections of 2006, 2008, and 2012 took place. For reasons that will become clear later, our sample is limited to the period 1994-2006 in which the single member district system was in place.[6]

3. Data

3.1. Transfers to municipalities

Transferring resources to municipalities is the responsibility of the Italian Ministry of Internal Affairs, and disaggregated data are available at the Ministry's website. Valle d'Aosta, Trentino-Alto Adige, Friuli-Venezia Giulia are special autonomous regions and the funding of their municipalities follows different rules. For this reason, we exclude municipalities in those regions from our analysis. We also exclude the capital, Rome.[7] This leaves us with a dataset of 15 ordinary regions plus Sardinia and Sicily, containing a total of 7,470 municipalities in 1994.

Transfers are divided into current transfers, intended to cover basic running costs, and capital transfers, destined to finance investments. The aggregate amount of government transfers has declined over time, and in 2005 it accounted for slightly more than 12 billion Euros (0.8% of GDP). Looking at the distribution of transfers across municipalities reveals substantial heterogeneity, even in per capita terms. Municipalities in mountainous and southern areas receive more money per capita, whereas in the north and especially in the river Po valley transfers are lower (see the Online Appendix for a detailed map). Determinants of this heterogeneity are

[5] The fact that the budget law was used by politicians to pass various pork-barrel projects has been a well known fact for decades. Once a former prime minister, Massimo D'Alema, described this process in these terms: "The Parliament becomes the most squalid suq [a bazaar] at the moment of assigning funds in the budget law".

[6] Single member district systems are generally regarded as favouring the individual profiles of parliamentarians, and this was also the case in Italy (Cotta and Verzichelli, 2007).

[7] Rome, together with a few other large municipalities, are always the birth town of at least one parliamentarian, so that their connection status has no variation over time.

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 dependent variable we use in the empirical analysis is total transfers, excluding past mortgage payments, in 2005 Euros per capita. Mortgage payments are excluded because they are funds that the central government sends to municipalities to pay instalments of old mortgages, taken before 1992. These transfers represent a small fraction of the total and are not manipulable.

3.2. Data on representatives and local level politicians

We also gathered information on all members of the national Parliament for the 1994-2006 period. Information on birthplace, date of birth and party is complemented with personal characteristics of politicians from Gagliarducci, Nannicini and Naticchioni (2010). Data on candidates from each of the electoral districts in Italy and their electoral outcomes are obtained from election data provided by the Ministry of Internal Affairs. The Ministry of Internal Affairs also provides information on anyone who has been elected for public office at the sub-national level since 1985, including date and place of birth, party membership, education and other basic personal characteristics. From this source we obtain data on all elected representatives at the local level the 1985-2014 period.

In the Online Appendix we report a map with the geographic distribution of birthplaces of parliamentarians elected in 1996. A large number is from the capital, Rome, and, not surprisingly, from other large cities like Turin, Milan, Genoa or Naples. Still, there are several smaller municipalities which are also connected to Parliament.

3.3. Other political and geographical variables

Geographical, demographic and economic characteristics are important to determine the amount of transfers the state decides to allocate to each municipality. In our analysis we control for these factors using information on population, surface and density of the municipality and altitude of the city centre. We also use an indicator for the presence of a military base. In order to control for the political orientation of voters in each municipality, we also collect data on the vote share received by the national government coalition at the municipal level plus information on the party of the mayor. More details on data sources are provided in the Appendix.

3.4. Descriptive Statistics

Panel A of table 1 presents a series of characteristics of the municipalities in the sample, grouped by legislature. Municipalities are small (around 7,000 inhabitants on average), with a mean surface of a little more than 40 km^2 and a slowly increasing population density that reached 248.2 inhabitants per square kilometre in the 2001 legislature. About 6.5% of municipalities have, on average, at least one connection with Parliament.

Panel B reports descriptives for all members of the Italian Parliament, divided in internals - those who were elected in a district that includes the birth town - externals, who were elected

in a district that does not include their birth town - and proportionally elected parliamentarians. Members of the Parliament are relatively old (around 50 years old on average), predominantly men and well paid, with an average gross income of above 110,000 Euros. Self-reported information on political careers pins down one important difference between internals and externals: the former are more likely to be politicians with a long standing experience at the local level, either as elected officials or as members of the party structure.[8] On the other hand, externals are more likely to be national level figures: besides being 8.5 percent more likely to have been national party member in the past, they also have more experience in the Parliament (0.6 more years on average) and are 1.8% more likely to have been members of the national government.

4. Empirical analysis

Parliamentarians seeking re-election are typically thought to have incentives to divert public resources to their district. But they may also have an interest in distributing these resources unevenly inside the district, for example by reserving a special treatment to their municipality of birth. After elections, politicians may retain links with their birthplace – for example through acquaintances, relatives, or party colleagues – that can affect their behaviour in office.[9]

The main objective of this section is to study empirically whether politicians favour their birthplaces in the allocation of transfers. Given that the relationship between a politician and her birthplace may differ if this municipality lies within the district of election or not, we need to take this into account in our analysis. An *internal* politician, who is elected in a district that includes her municipality of birth, may have a birth town bias because voters there are part of her electorate. But for an *external* politician, for whom the birthplace lies outside the district of election, this is not necessarily the case because none of her voters live there.

We define a municipality as connected if it is the birthplace of a member of Parliament. Specifically, a municipality has an internal, external or proportional connection if it is the birthplace of an internal, external or proportionally elected legislator currently in office. For each municipality i and year t, we define three indicators, $ext.\ connect_{it}$, $int.\ connect_{it}$ and $prop.\ connect_{it}$ that take value one if the town has an external, an internal or a proportional connection, respectively. We then test whether these variables affect the amount of transfers per capita received by a municipality.

Both longitudinal and cross sectional variation in these connection indicators can be used for estimation. Once we control for the population thresholds specified in the law regulating transfers, a simple cross-sectional comparison reveals that connected towns receive, on aver-

[8] The data are taken from Gagliarducci, Nannicini and Naticchioni (2010) who define national party members as "members of the directive board of the party at the national level" and, instead, local party members as "members of the directive board of the party at the local level".

[9] For example, Marangoni and Tronconi (2011) show that Italian legislators elected in their district of birth tend to sponsor more bills concerning this district than other parliamentarians.

TABLE 1

DESCRIPTIVE STATISTICS FOR MUNICIPALITIES AND PARLIAMENTARIANS

	1994-1995	1996-2000	2001-2005	
Panel A: Municipalities				
Population	6944.1	6963.6	7058.3	
	(29510.7)	(28855.8)	(28429.5)	
Transfers p.c.	226.8	208.7	248.2	
	(249.1)	(124.3)	(129.5)	
Surface (km2)	41.5	43.6	44.3	
	(274.9)	(315.5)	(318.9)	
Pop. density	283.8	287.6	294.8	
	(642.1)	(641.3)	(646.9)	
Municipalities with at least 1 repr (%)	6.5	6.4	6.3	
	(24.7)	(24.5)	(24.2)	
Observations	7467	7467	7463	
	Internals	**Externals**	**Prop.**	**Int-ext**
Panel B: Parliamentarians				
Age	49.8	50.8	50.5	-1.0
	9.2	9.9	9.5	0.4
Male (%)	92.6	90.4	80.6	2.2
	26.1	29.4	39.6	1.2
College or higher (%)	69.4	71.0	71.3	-1.7
	46.1	45.4	45.3	2.0
Income (thousand Euros)	114.2	119.7	113.2	-5.5
	249.7	150.3	158.7	8.9
Previous exp. in the Parliament (years)	2.6	3.2	3.3	-0.6
	4.4	5.1	5.5	0.2
Previous exp. in the Government	5.5	7.3	11.0	-1.8
	22.9	26.1	31.3	1.1
Previous exp. at the province level	13.6	10.4	9.6	3.3
	34.3	30.5	29.5	1.4
Previous exp. as mayor	18.0	8.9	10.5	9.0
	38.4	28.5	30.7	1.5
Previous exp. as national party member	17.6	26.1	24.3	-8.5
	38.1	43.9	42.9	1.8
Previous exp. as local party member	29.3	24.5	26.6	4.8
	45.5	43.0	44.2	1.9
Observations	996	1122	704	2118

Notes: Panel A: averages taken over the legislature specified in the column headings (standard deviations in parentheses). The number of observations refers to the number of municipalities with non missing transfers in the first year of each legislature. Panel B: averages across the whole sample period (standard errors in parentheses), data from Gagliarducci, Nannicini and Naticchioni (2010). Income is gross declared average income, in thousand Euros. Previous local level or political experience is self reported. The number of observations in panel B refers to the number of parliamentarians in all legislatures and counts re-elected candidates as different ones.

age, 19 Euros per capita more transfers each year than unconnected towns, corresponding to 8% of the overall sample mean. Part of this difference, however, may simply capture differences in observable and unobservable municipal characteristics that correlate with being the birthplace of a parliamentarian. A better approach to identify the causal effect of being connected on transfers is to exploit longitudinal variation instead.

Longitudinal variation is induced by turnover in Parliament. After each election, about half of the Parliament is not re-elected and this changes the connection status of some municipalities. Variation induced by parliamentary turnover is likely to be exogenous relative to other determinants of municipal transfers. A panel fixed effect estimator is a natural choice in this setting, as it allows to control for any unobserved determinants of transfers that are time-invariant and exploits only time variation for identification. The identifying assumption is then that, after controlling for municipality and time effects, there are no time-varying unobserved determinants of transfers that are correlated with our three connection variables. This is the approach we follow below.[10]

4.1. Baseline specification and results

In our baseline specification we consider a regression of government transfers per capita on three connection dummies, as defined above, and a set of controls:

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

where β_1 measures the extra yearly transfers per capita that a municipality receives on average for being the birth town of an external representative in the Parliament while β_2 and β_3 capture the effect for internal and proportional representatives, respectively. We use lags instead of contemporaneous values because transfers for t are determined in the budget law at the end of the previous year. As usual, x is a vector of controls, δ is a conformable vector of parameters and u_{it} is a random disturbance term that comprises all the determinants of transfers that are unobserved.

The choice of controls is guided 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 population, a set of dummies for each population band, lagged population density, surface in hundreds of square hectometres, a dummy taking value one if the municipality has a military base and a dummy taking value one if the municipality is a province capital. We also include an indicator that equals one if the most voted party in the last parliamentary elections in municipality i belongs to the coalition governing at the national level. This variables

[10] Another possibility would be to compare birthplaces of candidates who won the district race by a small margin with birthplaces of close losers in a regression discontinuity design (Lee 2008, Lee and Lemieux 2010). Implementing an RDD in our case would be, however, problematic. First, the units of observation are municipalities and not politicians and often a municipality is the birthplace of both winners and losers. Second, finding close races that only involve internal or external candidates reduces the sample size to a point in which it is hard to draw any meaningful statistical inference.

is meant to control for the possibility that the majority coalition in the Parliament may decide to allocate additional transfers to municipalities that strongly supported them in the previous elections.

Depending on the specification, the disturbance term u_{it} is allowed to include year, region or year-region dummies in order to capture fixed or time-varying regional effects (e.g. differences between southern and northern regions or changes in political orientation as well as differences in business or political cycles). In most specifications we also include municipality-specific fixed effects to capture time-invariant differences across municipalities. In these cases we use the longitudinal dimension of our dataset and use the within groups estimator. Identification of the coefficients of interest then comes from time variation in the connection dummies induced by parliamentary turnover alone.[11]

The inclusion of fixed effects allows us to control for determinants of transfers that are potentially correlated with having a connection. For example, some municipalities may have stronger local party structures which increase both their political clout and their chances of being the birthplace of a member of Parliament. Likewise, a municipality may be a cultural hub, receiving more funds for cultural matters and at the same time having both an increased civil society participation and a higher probability of being connected. Reverse causality could also be an issue if, for example, municipal governments that have historically received more transfers are more likely to place a local politician in the national party lists. These issues would be solved by the fixed effect specification under the assumption that the relevant confounding factors are fixed over the sample period.

In columns 1 to 4 of table 2 we present estimation results with different sets of time, region and municipality dummies. Standard errors are clustered at the municipality level in all specifications. Column 1 reports OLS estimates for equation 1 with year and region effects. We observe that externally connected towns are associated with 10.4 additional Euros per capita per year, whereas the effect of having an internal and proportional connection is positive but smaller. Nonetheless, when testing for equality of coefficients we cannot reject the null hypothesis of equality between the effects of externals and internals (p-value: 0.17) or the equality of externals and proportionals (p-value: 0.39).[12] Results in column 2-4 include municipality fixed effects plus different sets of time region, year and region-year dummies, to absorb common shocks and different regional trends in spending.

One potential issue with using the within-groups estimator in this context is that the connection dummies 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 around half of all legislators were re-elected, so the connection status of their municipality of

[11] In this case all time invariant controls are subsumed into the fixed effect and, hence, excluded from the estimation.

[12] A few cities are so large that had to be divided into several districts, so that defining a connection in such cases is potentially ambiguous. We address this issue by collapsing multiple districts into one that corresponds to the municipal boundaries. As a robustness check, we also ran all estimations again by dropping all multi-district cities, and results are unaffected.

birth was unchanged. Secondly, many medium and large cities such as Rome, Milan or Naples show no time variation in their connection status as they are always connected. The converse happens with the vast majority of small towns, which never are.

Despite the limited variability in the data, the within-groups estimator, in columns 2-4, delivers results that are qualitatively similar to OLS, although the point estimates are smaller. Specifically, having an external connection in Parliament is associated to additional yearly per capita transfers of roughly 4.8-5.6 Euros on average. This amounts to about 2.1-2.5% of the overall sample mean (equal to 227 Euro per capita) and 2.4-2.8% of the sample median in 2005, corresponding to a one million Euros increase in transfers over a full legislature for a small sized province capital (these calculations are for a 50,000 inhabitants city, such as Siena or Mantua).

Having an internal politician in Parliament does not seem to affect transfers significantly, as the coefficient for the internal connection is very close to zero. Proportional connections are, instead, positively associated with transfers but the coefficient is imprecisely estimated (this may be due to the fact that only one quarter of the Parliament is elected in the proportional quota). For the within groups estimates, the hypothesis of equality between the coefficient for internal and external connections finds little support, with p-values of 0.02, 0.05 and 0.10 in columns 2, 3 and 4, respectively. We interpret this result and the difference in point estimates as evidence of a different effect of internal and external connections. On the other hand, in the case of proportional and external connections we cannot reject the hypothesis of equality of coefficients (p-values range from 0.4 to above 0.7). We will come back to the interpretation of these coefficients later.[13]

To illustrate our results graphically, we also provide event study graphs in figure 1. We pool the three elections together and denote the year after a municipality receives an external connection as zero. The points in figure 1 are averages of our main variable, transfers per capita, after year effects have been purged. To be consistent with out econometric specification we consider the lagged impact of external connections. Given that we only display longitudinal variation here, we have restricted the sample to municipalities that have some variation during the sample period in their connection status, hence excluding municipalities that have been always – or never – connected.

The leftmost and central panels in figure 1 display, respectively, transfers for municipalities gaining or losing an external connection and after an election. Mean transfer for municipalities that remain unconnected are included for comparison purposes in the right panel. Pre-election and post-election averages are indicated in dashed lines. While the yearly estimates are quite noisy we can observe that on average municipalities gaining a connection experience a substantial increase in transfers. Municipalities losing a connection experience a decrease in transfers which is, however, smaller in absolute terms. Finally, municipalities remaining

[13]For completeness, we also run the same regressions using, instead of binary indicators, a variable that counts the number of connections and a specification with dummies for having 1, 2-3 and 4 or more connections. Results are in line with our preferred specification and are available upon request.

TABLE 2

BASELINE RESULTS

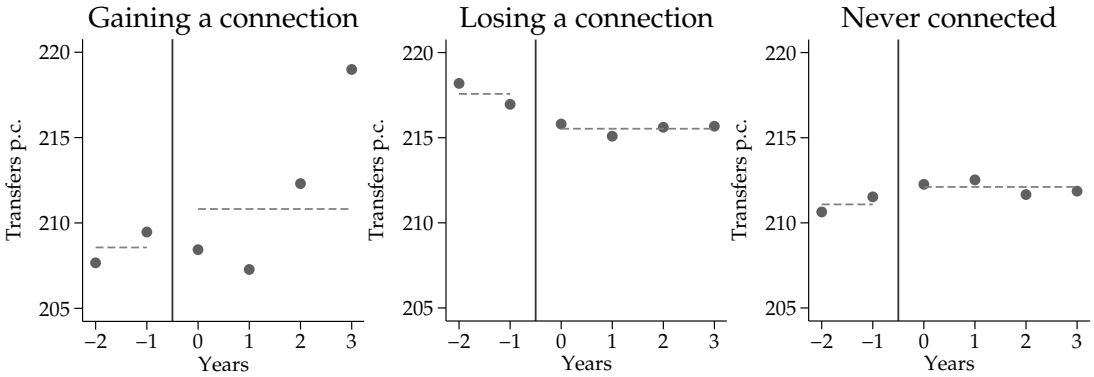
	OLS	Within-groups		
	(1)	(2)	(3)	(4)
	Transfers p.c.	Transfers p.c.	Transfers p.c.	Transfers p.c.
Ext. connect	10.4***	5.59***	4.81**	3.99**
	(3.43)	(2.17)	(2.20)	(1.95)
Int. connect	4.46	-1.19	-0.90	-0.15
	(2.93)	(2.47)	(2.59)	(2.27)
Prop. connect	6.28*	4.57	4.28	3.32
	(3.79)	(3.00)	(3.05)	(2.79)
Controls	Y	Y	Y	Y
Year effects	Y	N	Y	Y
Region effects	Y	N	N	N
Region-year effects	N	N	N	Y
Municipality effects	N	Y	Y	Y
R^2	0.39	0.64	0.66	0.67
Observations	89203	89203	89203	89203

Notes: The dependent variable is transfers from the central government in 2005 Euros per capita. Standard errors are robust to heteroskedasticity and clustered at the municipality level.
* p < 0.1, ** p < 0.05, *** p < 0.01.

without a connection experience a very slight change in average transfers equal to about 1 Euro per capita.

FIGURE 1

EVENT STUDY GRAPHS



Notes: These graphs plot the yearly evolution of transfers received by municipalities gaining (left panel) or losing (central panel) an *external* connection. We label the year after an election (1997 and 2002) as zero. Municipalities not gaining any connection are also reported in the rightmost panel for comparison. Transfers per capita are in Euros (after removing year effects and adding the estimated constant term to all coefficients). Means before and after elections are represented as dashed horizontal lines.

4.2. Internal and external politicians: different incentives

The typical explanation for pork-barrel spending in the literature is that politicians that want re-election have geographically concentrated incentives to please their district (Weingast,

Shepsle and Johnsen 1981, Aidt and Shvets 2012). It is then natural to ask whether our results are driven by differences in the electoral incentives of internal and external politicians. In our period of study roughly half of the Parliament was re-elected in each legislature. Among those re-elected in the majoritarian quota, around 83% did so in the same electoral district. If we look at transitions between internal, external and proportional statuses we see that 80% of externals remain externals, about 17% go into the proportional quota, and only 3% become internals.[14] Given that re-election in other districts is rare, favouring voters in the current district appears to be a reasonable strategy to pursue.

A consequence of this argument, however, is that electoral incentives are an unlikely explanation for our findings, as it is externals that are associated with additional resources to their birthplace, and this birthplace lies outside their district of election. For internal politicians we find no effect, despite the fact that their birth town does belong to their district. This is not particularly surprising if we bear in mind that the municipality of birth generally only accounts for a small fraction of the district's population, and electoral incentives for an internal politician may discourage her from favouring her birthplace.

The Trade-off between Electoral Incentives and Birth-Town Bias

In order to investigate the interplay between re-election incentives and the birth town bias documented above we study how the estimated effects vary across the electoral cycle. Electoral incentives are likely to be especially pressing towards the end of the legislature when voters' attention rises.[15] By interacting our connection variables with indicators for being in the first or in the last year of the term we can test for the existence of a cycle in transfers.

The *first year* dummy takes value one in election years (that is in 1994, 1996 and 2001), while *last year* is one in 2000 and 2005.[16] We estimate the fixed effect model with year-region dummies including the interactions of the first and last year indicators with our connection variables and report results in table 3. We keep the connection variables in all specifications, and include different interactions in each column.

Results in column 1 show that in the first year of a legislature all types of connections are associated with additional positive spending to municipalities – although the coefficients are statistically indistinguishable from zero – while the effect for the remaining years, captured by the non-interacted connection dummies, is positive only for externals and proportional. When we include, in column 2, only the interactions for last year of the term, we see that spending is remarkably reduced in the last years compared to the rest of the legislature. The negative sign of the interaction terms and the magnitude of the coefficients suggest that the

[14] Similar figures hold for internals with 77% remaining internals, 17% becoming proportionals and roughly 6% becoming externals.

[15] This would be a case of an *opportunistic spending cycle*, in which politicians may manipulate public policy in order to increase their chances of re-election. For evidence on this, see, e.g. Akhmedov and Zhuravskaya (2004) or, in the Italian context, Repetto (2015) and Alesina and Paradisi (2014).

[16] Given that the 1994 term ended unexpectedly, we do not consider 1995 as the last year of the legislature (its dummy is set to zero). Including it, however, leaves results qualitatively unchanged. Also, repeating the exercise using the first two and last two of the legislature (instead of just one) leads to very similar results.

TABLE 3

SPENDING CYCLE RESULTS

	(1) Transfers p.c.	(2) Transfers p.c.	(3) Transfers p.c.
Int.*first year	3.18		2.04
	(2.09)		(2.02)
Ext.*first year	3.20		1.91
	(2.60)		(2.52)
Prop.*first year	1.45		0.39
	(3.07)		(3.10)
Ext. connect	3.15*	4.99**	4.40**
	(1.66)	(2.06)	(1.71)
Int. connect	-1.06	0.69	0.024
	(2.02)	(2.34)	(2.04)
Prop. connect	2.86	4.01	3.86
	(2.36)	(2.93)	(2.49)
Int*last year		-6.07***	-5.46***
		(1.35)	(1.07)
Ext*last year		-6.53***	-5.97***
		(1.51)	(1.12)
Prop.*last year		-5.19***	-5.06***
		(1.92)	(1.76)
Controls	Y	Y	Y
Year effects	Y	Y	Y
Region effects	N	N	N
Region-year effects	Y	Y	Y
Municipality effects	Y	Y	Y
R^2	0.67	0.67	0.67
Observations	89203	89203	89203

Notes: The dependent variable is transfers from the central government in 2005 Euros per capita. *First year* is an indicator for being in the first year of the legislature (1994, 1996 and 2001), whereas *last year* is an indicator for being in the last year (2000 and 2005). All specifications include municipality and year-region fixed effects. Standard errors are robust to heteroskedasticity and clustered at the municipality level.

* p < 0.1, ** p < 0.05, *** p < 0.01.

transfers received by all connected municipalities drop to the level of unconnected ones in the pre-election years. In the last column we include all interactions, and the coefficients maintain the signs although they slightly vary in magnitude.

The main conclusion that can be drawn from this exercise is that the birth town bias is substantially reduced in the years preceding elections, possibly because politicians increase transfers only when re-election in Parliament is not an immediate concern. This suggests that the politician faces a trade-off between pushing to send pork to her birthplace and working to please her electorate. This trade-off can be seen as a particular case of the one at the heart of the career concerns models in Persson and Tabellini (2002), where politicians need to choose between extracting rents to their personal benefit and supplying a public good, to please voter and be re-elected. Even if internals and externals share the same preference for sending money

home, the difference in birth town bias could still arise as the result of the different trade-offs that both politicians face.

To further investigate this point, we inspect the legislative activity of internals and externals. We complement our data on Parliament members with the dataset used in Marangoni and Tronconi (2011), which includes information on the number of private member bills that each politician presented as first signer disaggregated into those that are directed to i) any Italian region, ii) her region of election and iii) her region of birth.[17] Those bills rarely become law but are used by parliamentarians as a way to take position and as a signal to their constituency of their daily work. We report tabulations for these variables separating internals and externals in table 4.

TABLE 4

LOCALNESS OF POLITICIANS

Panel A: Internals, externals and bills			
	Internals	**Externals**	**Ext - int**
# all bills	10.85	10.68	-0.17
			[1.28]
# regional bills (all regions)	1.58	1.01	-0.57***
			[0.20]
of which:			
% bills to region of election	84.49	65.40	-19.10***
			[4.54]
% bills to region of birth	84.49	12.25	-72.24***
			[4.09]
Observations	371	156	

Panel B: Test if externals disproportionally target birthplace	
	p-value
Unweighted	0.026**
Population Weighted	0.097*

Notes: Private member bills sponsored by members of the *Camera* who sponsored at least one bill. 1996 and 2001 legislatures only. Standard errors are reported in parenthesis. In panel B we report p-values for mean comparison tests for the share of regional bills sponsored by externals that are directed to their region of birth (12.25%). In the *Unweighted* line we report the p-value of a *t*-test of the null that this number is statistically different from 5%. In the *Population weighted* line, instead, we compare the share of birth region bills with the share of Italian population living in that region, and test the null that the difference between the two is zero. Source of legislative data: Marangoni and Tronconi (2011).

The average number of bills sponsored per term is comparable in both categories, but there

[17] Notice that bills are classified at the regional level, so that we are not able to tell whether bills were targeted to a specific birthplace or to other municipalities within the region of election. For this reason we exclude from our analysis those externals that are elected inside their region of birth. Data are available only for the *Camera* and for the 1996 and 2001 legislatures.

are differences in the target of these bills. Internals sponsor more regional bills and more bills directed to their region of election (and birth) than externals. Of all sponsored bills, internals devote a larger fraction to their region of election. In the second column we see that in their legislative activity externals target both their region of election and, interestingly, their region of birth, with as much as 12.25% of all regional bills they sponsor. However, given that Italy has 20 regions, if politicians sponsor several regional bills during a legislature, some might be directed to the region of birth by mere chance even if no targeting was planned. To test whether there is evidence of externals deliberately targeting their birth region over others we perform two statistical tests. In the first case (unweighted) we compare the observed figure with 5% - i.e. the value that one would expect if externals target bills randomly across the 20 Italian regions. In the second test (population weighted) we compare the share of bills to the region of birth to the share of Italian population living in that region.[18] This procedure aims to take into account that larger regions are more likely to be targeted. The p-values for these statistical tests are reported in panel B of table 4. In both cases, at the 10% level we reject the null that the observed figure is the result of chance. We interpret these results as evidence that externals disproportionately target their region of birth in legislative efforts, which is consistent with the birth town bias in transfers documented in the baseline results of table 2.

District Level Analysis

If the amount of resources available for distributing pork is limited and internals are more concerned about their district of election, districts that elected an external politician might receive, on average, less transfers than the ones represented by an internal. In order to test this hypothesis we aggregate transfers at the district level for both the *Camera* and the *Senato*. We then regress transfers per capita on an indicator that equals one if the district is represented by an external politician, separately for each chamber. We add as controls a cubic in population, density, surface and different sets of time or region-time dummies. After dropping special regions and multi-district cities such as Milan, Palermo and Rome, we are left with 364 districts for the *Camera* and 187 for the *Senato*.

Since each district is necessarily represented by either an internal or an external politician, the coefficient on *ext.connect* can be interpreted as the conditional effect of having elected an external on transfers.

We see in table 5 that municipalities in districts that elected an external representative in the *Camera* receive between 12.6 and 24.2 *less* Euros per capita in government transfers each year (for the OLS specifications, columns 1-3), and the same pattern is found for the Senate. Given the very small time series variation (few districts switch from an internal to an external in the sample), however, when we include district fixed effects the estimated coefficients are not significantly different from zero at conventional levels.

[18] Specifically, for each politician, we subtract this share from the share of regional bills that are directed to the region of birth. Then, we take the average of all these numbers and test the null hypothesis that this average is zero.

TABLE 5

DISTRICT-LEVEL ANALYSIS

	Transfers p.c.	Transfers p.c.	Transfers p.c.	Transfers p.c.
Panel A: Camera				
Ext. connect	-24.3***	-12.7***	-12.6***	-0.90
	(4.69)	(3.29)	(3.35)	(2.00)
R^2	0.11	0.51	0.57	0.83
Observations	4368	4368	4368	4368
Panel B: Senato				
Ext. connect	-26.8***	-7.57**	-8.18**	2.33
	(5.43)	(3.72)	(3.88)	(3.11)
R^2	0.18	0.63	0.70	0.88
Observations	2244	2244	2244	2244
Controls	Y	Y	Y	Y
Year effects	Y	Y	Y	Y
Region effects	N	Y	N	N
Region-year effects	N	N	Y	N
Constituency effects	N	N	N	Y

Notes: The dependent variable is transfers from the central government in 2005 Euros per capita, aggregated at the district level. Standard errors are robust to heteroskedasticity and clustered at the district level.
* p < 0.1, ** p < 0.05, *** p < 0.01.

This result provides some additional evidence in favour of the hypothesis that internals may be more focused on favouring their district of election than externals. Moreover, if we also consider that we find birth town bias for externals and not for internals, it is consistent with both types of politicians standing in different points of the trade-off between re-election incentives and birth town bias.

As the results in this section suggest, re-electoral incentives cannot explain the observed birth town bias. Moreover, favouring the district of election and the town of birth seem to be competing objectives, each being more or less pressing in different years of the term and among different types of politicians. In particular, pleasing the district's voters seems to be more compelling for internals than for externals as argued above and shown in Table 5. Given that re-election incentives are an unlikely explanation for our findings, the following section is devoted to investigating possible alternative mechanisms.

5. Mechanisms

This section explores possible mechanisms behind the birth town bias. We consider two potential channels. First, we investigate the role of post-congressional careers of members of the Parliament, and then we consider the effect of personal connections in their birth towns on transfer decisions. The role of internal migration of Italian voters as a possible source of electoral incentives driving birth town bias is explored in the Online Appendix.

5.1. Post-congressional career

In each election between 1994 and 2006, about half of the Parliament was renewed. High turnover has historically forced many parliamentarians to seek a career after Congress. As Merlo et al. (2008) show, 44.2 percent of all legislators in their sample for post-war Italy continued in politics after exiting Parliament, and more than one third of them were elected at the local level (town, province or region).

In light of this, legislators may divert transfers to their birth town as a way to improve their prospects of a local career at the municipal level. A direct test of the link between post-congressional career concerns and transfers is infeasible because meaningful measures of popularity at the local level are generally unavailable. Yet, there is at least one verifiable implication: parliamentarians who are interested in taking a position in their birth town later should be the ones who most actively affect transfers while in office.

We collect data on all elected officials at the town level – that is, mayors, vice-mayors and members of the council, as well as mayoral candidates – for the period 1994-2014 and match them with our legislators' data using full name, year and town of birth.[19] Around 10.9% of the members of the Parliament pursued a post-congressional career in the birth town according to our definition. Roughly 18.7% of internals go back to the birth town, as opposed to only 4.7% of externals and 9.8% of proportionals. This difference does not necessarily reflect differences in preferences but may simply be the result of the fact that internals, who are also much more likely to have a pre-congressional career at the local level, are better known in the birth town and have easier access to connections.

In order to test whether our results are driven by future career concerns, we add to our baseline specification interactions of our connection dummies with indicators that equal one when the corresponding connection is driven by at least one legislator with post-congressional experience in their birthplace. In our definition a politician has post-congressional experience if, after exiting Parliament for the first time, she goes back to the birth town and runs for mayor or is elected as committee member or town councillor.

Estimation results are presented in the first column of table 6, in which we estimate our baseline model with time effects only.[20] Results are consistent with the career concerns hypothesis: externals with a subsequent post-congressional career are associated with 11.9 more transfers to the birth town than other externals. The positive coefficients suggest that externals with a subsequent career at the local level are more actively transferring resources to their birthplace while in office.

In the baseline results, internals do not appear to divert transfers home and the additional effect for those who later pursue a post-congressional career at the local level is also indistin-

[19] Although it is possible that there are politicians with coinciding name, year and town of birth in our dataset, we believe that mismatches using this algorithm are rare. The data on mayoral candidates do not include information on neither the year nor the municipality of birth so the matching for candidates is done using the full name only.

[20] In this section we have to further split connections into small groups, hence reducing even more the variation in the data. For this reason, we choose not to include region-time interactions in any of the specifications. Once including region-time interactions, although signs are preserved, statistical significance is sometimes lost.

guishable from zero. This may be explained by the fact that – even if internals and externals had the same preference for sending money home – internals might face a higher electoral cost of favouring their municipality relative to externals, for whom the birth town is outside the district of election. Moreover, internal politicians are already well established local figures and, hence, may not need to further improve their popularity at the local level.

While this empirical specification is the best we can do given the available data, it has some limitations that affect the interpretation of the results. The experience variable is obtained using *ex post* information on realized transitions of legislators to local governments. However, the decision to transfer funds to the birthplace is taken previously, when the legislator does not know when she will be leaving Parliament and whether she will pursue a career at the local level at all. Furthermore, for some politicians the career in Congress was still not over in 2014, when our sample ends. Therefore, our local experience variables are only a proxy for the intention of the politician to go back to her birthplace and point estimates of the interaction terms may be downward biased.

5.2. Personal ties

There are several possible explanations behind the birth town bias other than career concerns. For example, politicians may have a personal connection to interested parties in their town of birth. One type of interested party is the local mayor. Members of the Parliament might be more inclined towards sending resources home if the mayor is of her same party.

To see whether being aligned with parliamentarians helps municipal governments to secure additional transfers we construct, for each type of connection, an indicator that equals one if municipality i has at least one connection in year $t-1$ belonging to the same party as the mayor in office. The three indicators are then added to our estimating equation 1. Results are reported in column 2 of table 6. Due to the widespread presence of independent candidates who run at the local level without the support of national parties, the number of aligned municipalities in the sample is relatively small.[21] In fact, of all connected towns, only 8.3%-34.9% (depending on the year) of all municipalities are aligned. Estimates reveal that internals are associated with substantially more transfers to their birth town when this town is aligned with at least one parliamentarian. Specifically, internal connections favour their birth town with roughly 15 Euros per capita each year if the mayor belongs to their same political party, a coefficient that is more than three times larger than the baseline effect found for external connections and equal to almost 7% of the sample mean. No additional effect is found for external (and proportional) connections when the mayor of their town is aligned.

Notice that this does not necessarily contradict the baseline result of no effect of internal connections. In fact, it may be the case that internals are willing to pay the electoral cost that comes from favouring a town over others only when the mayor belongs to their party. Additionally, as table 1 in section 3 suggests, internals are more likely to be part of the local

[21] For example, in 2005 almost 85% of all Italian mayors belonged to a list that was not officially connected to any party.

TABLE 6

MECHANISMS

	Post-congress	Aligned party	Same surname	All variables
	(1)	(2)	(3)	(4)
	Transfers p.c.	Transfers p.c.	Transfers p.c.	Transfers p.c.
Ext. connect	4.09*	4.71**	4.55**	3.89*
	(2.32)	(1.96)	(2.23)	(2.04)
Int. connect	-1.03	-3.44	-0.94	-3.27
	(2.86)	(2.55)	(2.72)	(2.97)
Prop. connect	4.93	5.18	4.39	5.60
	(3.82)	(3.67)	(3.12)	(4.32)
Ext.*Posterior exp.	11.8*			11.7*
	(6.80)			(7.02)
Int.*Posterior exp.	0.11			0.13
	(4.45)			(4.53)
Prop.*Posterior exp.	-5.74			-4.49
	(10.27)			(9.52)
Ext.*Aligned Party		1.28		1.44
		(8.66)		(8.51)
Int.*Aligned Party		15.5***		15.9***
		(5.78)		(5.84)
Prop.*Aligned Party		-7.63		-7.25
		(7.94)		(7.67)
Ext.*Same Surname			8.85	4.08
			(6.96)	(7.68)
Int.*Same Surname			0.19	-3.70
			(4.50)	(4.89)
Prop.*Same Surname			-1.80	0.94
			(6.90)	(6.80)
Controls	Y	Y	Y	Y
Year effects	Y	Y	Y	Y
Region-year effects	N	N	N	N
Municipality effects	Y	Y	Y	Y
R^2	0.66	0.66	0.66	0.66
Observations	89203	89203	89203	89203

Notes: The dependent variable is transfers from the central government in 2005 Euros per capita. The variable *Posterior exp* is a dummy equal to one if municipality i is the birth town of at least one parliamentarian in office in $t-1$ that pursued a career there after leaving Parliament. For each type of connection (*Internal, External or Proportional*), the interaction with the *Aligned Party* is one when municipality i has at least one connection in year $t-1$ belonging to the same party as the mayor in office. The variable *Same surname* is one if the municipality is the birth town of a member of the Parliament in office that has the same surname as the current mayor. All specifications include municipality and year fixed effects. Standard errors are robust to heteroskedasticity and clustered at the municipality level.

* p < 0.1, ** p < 0.05, *** p < 0.01.

party administration and they may be willing to acknowledge their electoral base and their party for their support by helping the mayor and her government with additional resources.

Another type of personal connection politicians may have is that generated by friends, family, or other acquaintances – such as members of the local party structure that helped them reach the Parliament. Testing whether the birth town bias is related to this type of personal

connections is challenging because most of this network of relationships is unobservable. To try to obtain some evidence on this hypothesis we construct, for internals, externals and proportional connections an indicator that is equal to one if a municipality is the birth town of at least one member of the Parliament in office that has the same surname of the current mayor. This variable is imperfect because sharing the surname does not necessarily mean being related and, vice versa, two persons with different surnames might be relatives or close friends. But it might still capture, albeit noisily, whether the mayor has some kind of personal connection with members of Parliament. Depending on the year, there are from 19 to 33 parliamentarians in our sample that share the surname with the mayor of their birth town, and in more than half of the cases these two persons are actually the same.[22]

In column 3 of table 6 we show that municipalities whose mayor shares the same last name with at least one member of the Parliament do not appear to receive additional transfers. Although the estimated effect for the external connections is positive, the little variation in this variables renders the point estimates statistically indistinguishable from zero, so that this exercise brings no evidence in favour of an additional effect of sharing the same name with the mayor.[23]

In the last column of the table we include all the interactions discussed before to see whether one mechanism prevails over the other. Results are in line with the separate estimations, suggesting that post-congressional careers and party alignment both play a role in the allocation decisions of members of Parliament. This section also sheds light on the interpretation of the baseline result for externals by showing that an important driver of these politicians' decisions could be their post congressional career concerns.

6. Placebos and robustness checks

While the municipality effects deal with fixed unobservable differences, it is still possible that time-varying shocks which affect both transfers and the political influence of a municipality bias the baseline estimates in table 2. The idea of the placebos we propose below is to use variables that may be correlated to a municipality's political salience but that are not directly related to the budgetary process.

First, we use data on elections outcomes to pin down the identity and the birth town of runners-up in all single member district votes. In a single member district election there is always a winner, who takes a seat in Parliament, and one or more losers. We construct a dummy variable, *false ext. connect*, analogously to *ext. connect* but taking value one when a municipality is the birthplace of at least one runner-up instead of a winner. Suppose that a municipality is affected by some shock that improves its political visibility. This shock simultaneously increase the amount of transfers received and possibly also the probability that a

[22] In the period covered by our sample, the two offices were not incompatible, see *Testo Unico degli Enti Locali* (D.lgs. 267/2000), lemma 63.

[23] Using an indicator taking value one when the mayor is a member of parliament yields very similar results.

politician born there stands for Parliament. While this co-movement would bias our baseline estimates, it would also induce a positive correlation between *false ext. connect* and transfers as long as the runner-up dummy is also affected by the political visibility shock. Following this argument, we replace our connection variables with the ones constructed using runners-up instead of winners and estimate the model again. The negative and statistically insignificant coefficient estimates for both of these indicators in column 1 of table 7 reassuringly suggest that our results are not driven by the time varying political weight of different municipalities.

A similar intuition motivates our second placebo test. We use a dummy *reg. connect* taking value one if municipality i is the birthplace of a 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 the probability of having a connection as there is no plausible way through which regional legislators may affect national transfers directly. In column 2 of table 7 we show that having a regional connection, as expected, has no impact on central government transfers.

In the years prior to 1992 municipalities were allowed to take on mortgage debt that was later assumed by the central government. The instalments of this debt were paid yearly through transfers to the municipality for the corresponding amount.[24] After the system ceased to exist transfers went on for the following years to complete the payment of outstanding mortgages. In our third placebo we use these transfers as our dependent variable. In column 3 of table 7 we show that our connection variables have no effect on this type of transfers.

Our final placebo changes the dependent variable to ordinary transfers (*fondo ordinario*). These are part of our total transfers variable but are destined to finance current expenditures and are arguably harder to manipulate. Column 4 of table 7 confirms this hypothesis by showing that our connection variables have indeed a small and insignificant effect on ordinary transfers. Note that the R^2 of the regression is substantially higher than before, meaning that the control variables suggested by the transfers law criteria (e.g. population, density etc.) do a much better job in explaining the variation in ordinary transfers than do for total transfers.

To test the robustness of our baseline results, we consider three variations of the original model. First, we estimate the model using the logarithm of transfers per capita as our dependent variable. This leads very similar results to those presented before, with external connections increasing transfers per capita by 1.62 percent. Our second robustness check includes the runner-up and regional connection variables *false ext connect*, *false int connect* and *reg connect* as controls in the baseline specification. Our main results remain qualitatively unchanged. Finally, we estimate a model in which connections are divided into regular connections (as defined above) and connections through members of a "key" commission in the Parliament. With this specification we want to check whether more influential (or simply better positioned) politicians are more capable to manipulate transfers. Results suggests that it

[24] These are called the *fondo sviluppo investimenti*. Recall that we excluded those transfers from our main dependent variable definition, see section 2.

TABLE 7
PLACEBOS

	(1) Transfers p.c.	(2) Transfers p.c.	(3) Mortg. tr. p.c.	(4) Ordinary tr. p.c.
False ext. connect	-1.77			
	(1.99)			
False int. connect	-0.64			
	(1.51)			
Reg. connect		0.34		
		(1.28)		
Ext. connect			-0.32	1.30
			(0.80)	(1.41)
Int. connect			-0.048	0.033
			(0.68)	(1.37)
Prop. connect			-0.54	2.19
			(0.83)	(1.79)
Controls	Y	Y	Y	Y
Year effects	Y	Y	Y	Y
Region effects	N	N	N	N
Region-year effects	Y	Y	Y	Y
Municipality effects	Y	Y	Y	Y
R^2	0.67	0.67	0.86	0.95
Observations	89203	89203	83889	89183

Notes: The dependent variable in columns 1 and 2 is transfers from the central government. In column 3 the dependent variable is transfers for past mortgages, whereas in column 4 we use ordinary tranfers. All quantities are in 2005 Euros per capita. Standard errors are robust to heteroskedasticity and clustered at the municipality level.

* p < 0.1, ** p < 0.05, *** p < 0.01.

is indeed legislators' actions and not municipal-level unobservables that are behind our main results. Detailed results for these robustness checks are presented in the Online Appendix.

7. Conclusions

In this paper we use data on government transfers at the municipal level to study if the birth towns of Italian members of Parliament are favoured in budgetary allocations. By using the town of birth as the link between geographical areas and political institutions, we exploit a different source of variation from those used in previous analyses of pork-barrel politics. This level of disaggregation, together with the single member district system in place in Italy, allows us to disentangle electoral motives from other possible drivers of birth town bias.

In order to study how electoral incentives shape allocation decisions, we divide politicians into those having their birthplace within their district of election (internals) and those having their birthplace elsewhere (externals). We observe that municipalities connected to Parliament through an external receive roughly 2 percent larger yearly per capita transfers. Given that the birth town bias appears to be driven only by externals and that these politicians have no electoral incentives to favour their birthplace, we conclude that re-election incentives cannot be driving our results. Re-election incentives for a parliamentarian appear, instead, to compete

with the incentive to favour the town of birth. In particular, we find that the amount of birth town bias evolves over the term, being large in the years just after legislative elections and disappearing toward the end of the term, when politicians are most focused on being re-elected in Parliament.

We then turn to study other possible incentives to favour the birthplace. First, we argue that post-congressional career considerations by incumbent legislators explain at least part of our results. By increasing transfers while in office, politicians may be able to improve their chances of being elected at the local level after exiting Parliament. Using data on politicians' career profiles, we find an additional effect of external parliamentarians who later ran for a local office. Then, we explore whether the presence of personal ties in the birth town could provide an alternative mechanism. In order to capture these links, we consider both alignment between the parliamentarian and the mayor along party lines and the existence of family links, captured by the legislator sharing the last name with the mayor. While we find that party alignment can play a role for internal politicians, it does not appear to be a relevant mechanism for externals. Finally, we do not find evidence in favour of an effect of family links between the politician and the local mayor.

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