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

Felipe Carozzi & Luca Repetto

This appendix is structured as follows: section 1 lists data sources and briefly describes how we processed the data before estimation. Section 2 studies an alternative mechanism behind the birth town bias, which we denote internal migration. The results in this sections should be see as an addition to those presented in section 5 of the paper. Section 3 provides a series of robustness checks for our results and section 4 presents two maps which help to illustrate the cross sectional heterogeneity in transfers and connections present in our dataset.

1 Data Sources

The dataset is composed of three main parts: i) government transfers data, ii) data on members of the Parliament and iii) political and geographical variables. The list of all municipalities, which may change because of merges or dissolutions, is taken from the Minister of Internal Affairs' *Rilevazione del corpo elettorale* (http://amministratori.interno.it).

Government transfers data

Yearly transfers to municipalities are obtained from the Italian Ministry of Internal Affairs (*Ministero dell'Interno*, http://finanzalocale.interno.it/). Data are freely accessible but not easily downloadable, so we used a Python script to obtain them. Total transfers from 1994 to 1996 are not directly available so we recover them by summing all the payments received by municipalities in each of those years using the *Pagamenti* page in the same website. Quantities are then deflated to be expressed in 2005 Euros and divided by population.

Data on members of the Parliament

Data on the Parliament composition and some characteristics of politicians are taken from the official websites of the *Camera* (http://storia.camera.it/) and *Senato* (http://www.senato.it). We supplement this dataset with information from Gagliarducci, Nannicini and Naticchioni (2010) and with the names and birthplaces of runner-ups to district elections (obtained by personal communication with the Ministry). This dataset is complemented with municipal-level data from the Census of all elected public administrators (http://amministratori.interno.it/). The archive has a good amount of details on whoever held a political position at any level in Italy since 1985. Finally, data on sponsored bills is taken from Marangoni and Tronconi (2011).

Political and geographical variables

Political and geographical controls are taken from several sources. For population data

(including migration) we resort to the national statistical office (ISTAT) which provides Census data for 1991, 2001 and 2011 (http://ottomilacensus.istat.it/download-dati/). Since 2002, yearly data are available and, hence, used instead (http://demo.istat.it/). Missing data points for population between the 1991 and 2001 Censuses are geometrically interpolated assuming a constant growth rate between 1991 and 2001. Surface data are from the Italian Agency for Energy (ENEA). Finally, to construct a control for the political leaning of each municipality for each year, we downloaded results at the municipality level for the three legislative elections from the Ministry's website (http://elezionistorico.interno.it/). In our analysis below, we also use information on internal migration extracted from the 2011 Italian census published online by ISTAT (http://dati-censimentopopolazione.istat.it/). Finally, data on municipal election results, used for the post-congressional careers exercise, was obtained by personal communication with the staff at the Ministry of Internal Affairs.

2 Internal migration

The combination of electoral incentives with internal migration could be behind our main result regarding the effect of externals on transfers. External politicians may be able to improve their electoral prospects by favouring their birthplace if many people from their birthplace or birth region live within their district of election. For instance, a politician elected in a district in Milan who was originally born in Tuscany may exert effort to favour Tuscany with extra budgetary allocations if this allows her to win votes among the Tuscan migrants living in her district of election.

This mechanism should only be relevant in large cities, which had large inflows of internal migrants in the past and, hence, is unlikely to be driving our results. In fact, those cities do not contribute to the identification of our parameters of interest because they are, in the majority of cases, always connected. An ideal dataset to tackle this question would comprise yearly municipal-level information on the fraction of people born in other municipalities. This would effectively allow us to test whether our effect is driven by towns where there is a large fraction of voters sharing origins with their legislator. Unfortunately, to our knowledge, the only dataset available is the Census data made available to the public by the Italian statistical office (ISTAT), which does not offer such disaggregation being only at the province level. We consider three alternatives in the following.

The data in the 2011 Census contain information on the number of people living in each province disaggregated by the region of residence five years earlier. These data have the disadvantage that they do not capture long-term migration waves but only recent moves. However, they can help us identify which electoral districts are currently receiving relatively large amount of migrants from other regions and test whether legislators born in those regions and running in these districts are driving our results. Given that the data are at the province level, we have to aggregate districts to provinces and focus our attention on legislators that are not only externals (that is, elected in a district that does not include the town of birth), but also are elected outside their region of birth.

To this aim, we define a new external connection dummy $Ext.connect(Out)$ which takes

value one when the municipality has at least one external connection that is elected outside the region of birth. We then define the variable $Ext.connect_{it}(Out) \times mig_i$ which is equal to $Ext.connect(Out)$ interacted with the percentage of population that resided in the legislator's region of birth in 2006 and that lived in the electoral district to which municipality i belongs in 2011.[1] This interaction variable, lagged one year, is then included in our baseline specification to explore whether it affects transfers. If the internal migration hypothesis is true, we should expect a positive correlation of this variable with transfers.[2]

Results are displayed in column 1 of Table 1. We can see that the estimated coefficient of $Ext.connect(Out) \times mig$ is positive but not significant, with very large standard errors. The point estimate suggests that a 1% increase in the number of people from the birth region of the legislator in the district of election increases the effect of an external connection by 0.53 Euros per capita. The variable mig has a mean of 0.24% and a standard deviation of 0.34, with a maximum value of only 2.1%. This means that even a three standard deviations change in this variable would produce an estimated increase in transfers of roughly one Euro per capita only. The lack of statistical significance, together with the negligible economic effect of this variable suggest that, overall, internal migration is not a mechanism driving our baseline results.

As stated, before, one issue with these data is that they only capture relatively recent migrations and do not include information of the large movements of the early and mid 20^{th} century. These where largely dominated by moves from South to North and rural to urban areas (Bonifazi and Heins, 2000). To check whether our baseline effect might be somewhat related to the north-south differences in migration flows, we add to our specification the interaction $Ext.connect_{it} \times south_i$ where $south_i$ is a dummy taking value 1 for municipalities in the regions of Campania, Calabria, Puglia, Basilicata or Sicily. Results are displayed in column 2 of table 1. We can see that the coefficient is not significant at conventional levels. Moreover, the value of the coefficient on $Ext.\ connect$ is essentially unaffected by including this variable. We interpret this as evidence that our effect is not different in northern and southern municipalities and, hence, unlikely to be driven by this kind of geographical difference.

Finally we test whether the effect of external connections is different depending on whether the legislator is chosen outside her region of birth, by including in our specification the variable $Ext.connect(Out)$ directly.[3] The resulting estimates are displayed in column 3 of Table 1 and show that we cannot reject the null of no differential effect of legislators elected outside their region of birth at conventional levels.

Together, these results do not lend support to the internal migration mechanism outlined above.

[1] Since the data are a cross-section from the 2011 Census, the time subscript is dropped. In case a municipality is the birth town of more than one MP, we use the largest value of mig_i.

[2] The reason we concentrate on externals elected outside the birth region is related to data limitations. Since we have migration information only on the region of origin, for external connections generated by an MP who is elected *inside* the region of birth the value of mig_i would be artificially very high. As an example, an MP born in Rome and elected in a district in Lazio generates a value of mig_i very close to close to 100%, since most Roman residents come from Lazio.

[3] Note that the fact that a legislator is born inside her region of birth does not automatically make it an internal as each region includes several electoral districts and the definition of external depends on districts, not regions.

TABLE 1

INTERNAL MIGRATION

	Within-groups		
	(1) Transfers p.c.	(2) Transfers p.c.	(3) Transfers p.c.
Ext. connect	4.77**	4.59*	4.17*
	(2.22)	(2.54)	(2.27)
Ext. connect(*Out*) × *mig*	0.53		
	(7.62)		
Ext. connect(*Out*)			1.84
			(4.01)
Ext. connect × *south*		0.66	
		(4.57)	
Int. connect	-0.91	-0.91	-0.94
	(2.59)	(2.59)	(2.57)
Prop. connect	4.29	4.28	4.34
	(3.06)	(3.06)	(3.09)
Year effects	Y	Y	Y
Region effects	N	N	N
Region-year effects	N	N	N
Municipality effects	Y	Y	Y
R^2	0.66	0.66	0.66
Observations	89203	89203	89203

Notes: The dependent variable is transfers from the central government in 2005 Euros per capita. *Ext. connect*(*Out*) is one when the municipality has an external connection that was elected *outside* the region of birth. *South* is one when the municipality is in Campania, Calabria, Puglia, Basilicata or Sicily. Standard errors are robust to heteroskedasticity and clustered at the municipality level.

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

3 Robustness Checks

In this section we test the robustness of our baseline results by considering three variations of the original model.[4] In the first place we estimate the model using the logarithm of transfers per capita as our dependent variable. The log specification is more robust to outliers and changes the interpretation of the time effects from fixed amount to proportional changes. Our second robustness check includes the runner-up and regional connection variables *false ext connect*, *false int connect* and *reg connect* (defined in the paper) as controls in the baseline specification. These variables could be correlated with time varying factors related to the political clout of the municipality in question and this motivates their inclusion as controls.

Finally, we estimate a model in which connections are divided into regular connections (as defined above) and connections that are 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. Data on commission affiliation for each legislator were obtained from Gagliarducci, Nannicini and Naticchioni (2010). In the period considered there were 15 active commissions composed of about 15-27 members in the *Senato*

[4]Recall the baseline model is $trans_{it} = \beta_1 ext.\ connect_{it-1} + \beta_2 int.\ connect_{it-1} + \beta_3 prop.\ connect_{it-1} + \delta' x_{it-1} + u_{it}$

TABLE 2

ROBUSTNESS CHECKS

	(1) Log transfers p.c.	(2) Transfers p.c.	(3) Transfers p.c.
False ext. connect		-1.36	
		(1.91)	
False int. connect		-0.60	
		(1.51)	
Reg. connect		0.43	
		(1.28)	
Ext. connect	1.62*	3.85**	0.18
	(0.98)	(1.88)	(1.75)
Int. connect	-0.34	-0.22	-4.75
	(0.95)	(2.28)	(2.91)
Prop. connect	1.49	3.24	5.78
	(1.31)	(2.74)	(3.89)
Ext. connect * comm.			11.3**
			(5.12)
Int. connect * comm.			9.93**
			(4.39)
Prop. connect * comm.			-9.17*
			(5.25)
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	0.91	0.67	0.67
Observations	89203	89203	89203

Notes: The dependent variable is transfers from the central government in all columns except the first, in which we use log transfers. All quantities are in 2005 Euros per capita. Standard errors are robust to heteroskedasticity and clustered at the district level.

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

and 35-90 in the *Camera*. The overwhelming majority of Italian legislators participated in at least one commission in any given legislature. These commissions have considerable influence in shaping the legislative agenda in their subject area. Given that we are interested in identifying those legislators with particular impact in local level finance we restrict our attention to public budget, public finance, public works, agriculture, and transportation, which will form our "key commissions" group.[5]

The results for these robustness checks are presented in table 2. In column 1 we see that the log specification yields very similar results to those presented before, with external connections increasing transfers per capita by 1.62 percent. Column 2 shows that point estimates

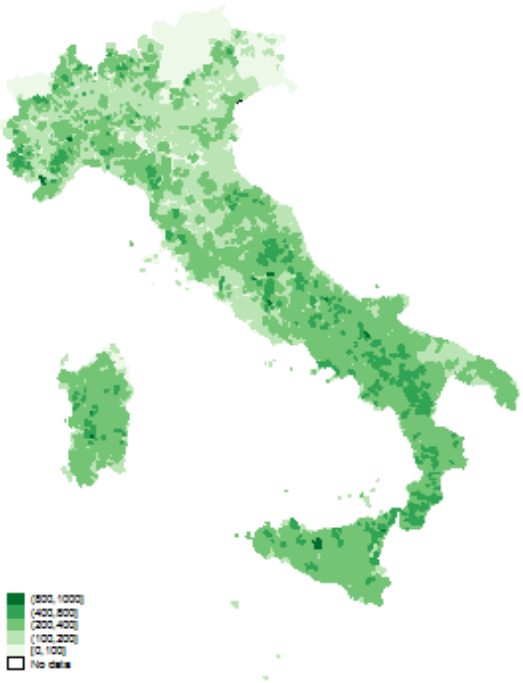
[5]It is not entirely clear how to select the commissions that deal with matters related to transfers and local government from the ones that discuss other technical or legislative issues. While the choice will always involve a certain degree of arbitrariness, we believe that we are on the safe side excluding the constitutional affairs, environment, foreign affairs, industry, justice, employment, European Union, health, defence and culture commissions. Casual inspection of the activity of those commissions reveals that it is unrelated with municipal issues.

for the connection variables are essentially unaffected by the inclusion of the runner-up and regional connection dummies as controls. Finally, column 3 indicates that a large part of the estimated effect of legislators on transfers operates through members of key commissions, as expected. This result, although predictable, suggests that it is indeed legislators' actions and not municipal-level unobservables that are behind our main results.

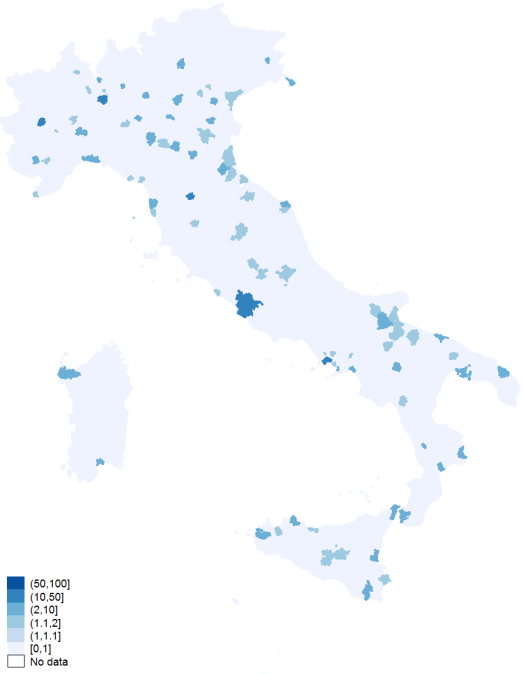
4 Additional Figures

In figure 1a one can appreciate how municipalities in the mountainous regions and in the south receive, during the 1996 term, more government transfers per capita. Figure 1b shows, instead, the municipalities of birth of the members of the 1996 Parliament.

FIGURE 1



(A) TOTAL STATE TRANSFERS BY MUNICIPALITY, LEGISLATURE 1996-2001



(B) REPRESENTATIVES BY MUNICIPALITY OF ORIGIN, LEGISLATURE 1996-2001.

References

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