Italians' and Foreigners' Internal Mobility in Italy

Oliviero CASACCHIA¹, Cecilia REYNAUD², Salvatore STROZZA³, Enrico TUCCI⁴

 ¹ "Sapienza" University of Rome, Piazzale Aldo Moro 5, Rome, <u>oliviero.casacchia@uniroma1.it</u>
 ² University of Roma Tre, Via G. Chiabrera, 199, Rome, <u>cecilia.reynaud@uniroma3.it</u>
 ³ Università of Naple Federico II, Via Leopoldo Rodinò n. 22 - Napoli, <u>strozza@unina.it</u>
 ⁴ ISTAT, Via Cesare Balbo 16, 00184 Roma, <u>tucci@istat.it</u>

Abstract

Internal mobility in Italy, after periods of intense growth and stagnation with different directions and actors involved, showed a marked increase also thanks to the contribution of the foreigners residing in Italy. In the last years, in fact, international immigration seems to have affected greatly the nature and features of internal mobility. Between 1995 and 2010, the changes of residence between Italian municipalities increased of more than 20%. Simultaneously, the contribution of the foreign population to internal migrations reached the level of 17%. The increase of the number of foreign residents, their greater propensity to move within the country, and structural factors such as the greater incidence of foreigners within the younger age-groups, may only partly explain these changes. We use data from the population register on changes of residence, which allows the knowledge of individual movements and which is the source mostly used to study internal mobility. This work aims at assessing the structural characteristics of internal migrations of the foreign and the Italian population, focusing on the intensity of the flows, the concentration level of enrolments and cancellations, respectively by area of origin and destination, and lastly on the role played by populations and distances. Besides the classical measures, we adopt a gravitational model which allows to quantify the effects on internal mobility due to the dimension of the populations in the areas of origin and destination and the distance between Italian provinces (equal to 103 units). The gravitational model in its most elementary formulation allowed to shows that the three macro variables constitute an important not negligible component in the study of the migratory phenomenon. The estimates obtained for the years 1995, 2000, 2005 and 2010, clearly highlight the different behaviours of Italians and foreigners and a different evolution of the phenomenon. One impressive result is that distance has an higher effect in depressing foreign mobility than Italian mobility, coherently with some results obtained in other research (Ricciardo Lamonica and Zagaglia, 2011). We can obtain the same results by analyzing the average distance in the outflow or inflow between provinces: for example, in 2010 the Italian internal migrants make 320 km in their moves between provinces, whereas the foreign internal migrants make only 230 km (90 km less!). Some refinements of the basic model are proposed, trying to capture the differential effect of the masses and of the distance in a single model.

1 Introduction

Internal mobility in Italy, after periods of intense growth and stagnation with different directions and actors involved (Bonifazi, 1999), in the last fifteen years showed a marked increase also thanks to the contribution of the foreigners residing in Italy (Bonifazi, 2009; de Filippo and Strozza, 2011, Pugliese 2006). In the last years, in fact, international immigration seems to have affected greatly the nature and features of internal mobility. The increase of the number of foreign residents, their greater propensity to move within the country, and structural factors such as the greater incidence of foreigners within the younger age-groups, may partly explain these changes. In the nineties, an upturn of internal mobility in Italy is observed, following the phase of stagnation characterizing the previous decade; particularly, since 1995 it may be noticed that the number of changes of residence has been increased consistently, notwithstanding the abrupt drop in 2001 (Golini and Reynaud, 2010). Thus, and as already stated, the foreign component is acquiring an always greater role: the changes of residence between Italian municipalities of foreign citizens were 41 thousands in 1995, nearly 88 thousands in 2000, 185 thousands in 2005 and 225 thousands in 2010. The behaviour of the foreign population differs from that of the Italian population: foreigner show a greater propensity to move within the country and partially different

migratory routes (Conti, Guarneri and Tucci, 2010). The aim of this study is to analyse similarities and differences in the internal mobility of Italians and foreigners, focusing on the intensity of the flows, the concentration level of enrolments and cancellations, respectively by area of origin and destination, and lastly on the role played by populations and distances.

2 Data and methods

The mostly used source to study internal mobility is the data from the population register on changes of residence, which allows the knowledge of individual movements (Cassata, 2005). Besides the municipality of origin and that of destination, the *anagrafe* collects some other individual features (i.e. date and place of birth, sex and citizenship).

In the study of internal mobility, the territorial unit of reference gains relevance: the flows are those between (and not within) the territorial areas, whose definition is thus a necessary premise for defining and quantifying the phenomenon.

Firstly we present a descriptive analysis of internal mobility among the provinces, distinguishing between the behaviour of Italian and foreign population, highlighting their similarities and differences. We estimated the immigration and emigration rates (total number of enrolments/cancellations in the province over the total amount of resident population of reference). We computed rates separately for Italians and foreigners.

Subsequently, we used a gravitational model to the migratory flows among provinces, always considering Italians and foreigners and again with respect to the four mentioned years to account for the phenomenon's temporal evolution. The model is inspired by the Newtonian principle of universal gravitation (Poulain, 1981): according to the physical theory of gravity, it considers the migratory flows between two zones, as directly

proportional to the product of the masses (attractive or repulsive) and inversely proportional to the distance (or to a function of the distance) between the two areas. The 'gravitational model', widely used in the empirical analyses of the flows of goods and services, particularly within the field of international trade, provided satisfying results even in studies concerning internal migratory flows and international migration too (see for instance: Casacchia and Tagliarini, 2000; Kim and Cohen 2010, Lamonica and Zagaglia, 2008). The model has been modified considering not only the effect of specific masses and the distance but also interactive factors between a dummy variable (foreign/Italian) and the explicative variables in a unique model. A further model considers two other covariates, that is two masses related to the foreign population in the origin and the destination province and their interactions.

3 Mobility between provinces: descriptive findings

The mobility between the provinces concerned in 1995 more than 420 thousands movements as for the Italians, and around 19 thousands for the foreign population. The mobility increased in absolute value to reach in 2000 the value of 484 and 40 thousands movements respectively for the Italian and foreign population; also the relative incidence of this typology of internal movements increased slightly (+1.4 for Italians and +0.1 for foreigners). Comparing the figures of 2005 and 2000, it may be observed that the movements between provinces decrease both in absolute and relative terms among the Italian population, whereas the only decrease is in relative terms among the foreigners. The decrease observed in the percentages of this typology of movements over the entire considered period is more consistent within the foreign population: -8.2 percent between 1995 and 2005 compared to the -0.7 percent for the Italian population (table 1). A slight increase in the subsequent period is observed for Italian, whereas move of foreign people continue to increase (from 69 to 87 thousands). The relative incidence in both population is slightly increasing (+0,7 for Italians, +1,3 for foreign)population: see year 2010). In this respect, it should be considered that part of the foreign population has been now resident in Italy for a long time, thus it is likely that, as the process of stabilization goes on, the foreign population is assuming mobility behaviours which resemble to those of the autochthones, characterized by the tendency to shorter distance movements (Istat, 2009).

year	Italians		Foreigners	
	<i>a.v.</i>	%	<i>a.v.</i>	%
1995	422,016	39.5	18,922	45.7
2000	484,150	40.9	40,284	45.8
2005	441,461	38.8	69,143	37.3
2010	442,493	39.5	86,943	38.6

Table 1: Population movement between provinces, by citizenship. Absolute values and percentages over total number of movements.

The foreign populations, as it was expected, register higher mobility rates compared to those of the Italians because are conversely less constrained and show structural characteristics favouring mobility, such as the prevalence of younger generations more frequently inclined to movements. On the other hand, Italians - excluding the time of the great emigration - are characterized by a generally lower mobility, deeply tied to their families, homes and territories.

4 Application of the gravitational model and conclusion

The application of the gravitational model consents to verify whether the flows between two provinces are directly proportional to the population "masses" of the areas of origin and destination and inversely proportional to the distance between them. The assumption is thus that the migration flows are more intense if the distance between the two provinces is shorter and the two populations have larger size. The gravitational model was estimated after applying the logarithmic transformation.

The descriptive analysis and the application of the model clearly show that the mobility of the Italian and the foreign population present remarkable differences, whose features and peculiarities deserve to be thoroughly examined. The gravitational model in its most elementary formulation allowed to highlight that the three macro variables constitute an important not negligible component in the study of the migratory phenomenon. The estimates obtained for the years 1995, 2000, 2005 and 2010 clearly highlight the different behaviours of Italians and foreigners.

One important result is that distance seems to have an higher effect in depressing foreign mobility than Italian mobility, coherently with some results obtained in other researches (Ricciardo Lamonica and Zagaglia, 2008; 2011). Some evidences of this result have been obtained by analyzing the average distance in the outflow or inflow between provinces: for example, in 2010 the Italian internal migrants make on average 320 km in their moves between provinces, whereas the foreign internal migrants make only 230 km (90 km less!). The analysis of the length of the moves by distinguish the geographical macroareas (North, Centre and South) of origin/destination shows that foreigners that move from the North usually stay more likely that Italians in the same macro-area, whereas in the Centre and in the South both the population exhibit the same pattern.

Some refinements of the basic model are proposed, trying to capture the effect of the two different masses (foreign and Italian populations) in a single model and the effect of the masses of the foreign residence population.

Future developments of the research will aim on the one hand at considering variables other than demographic or geographic which express the forces of attraction/repulsion of the province in terms of economic, social, urban element. Besides, further results can be obtained performing analysis of the model's residuals, which is of great relevance as it may reveal the existence of attraction - or barrier - effects between the provinces composing the specific territorial level adopted by the research.

5 References

Bonifazi C. (ed.) (1999), *Mezzogiorno e migrazioni interne*, Istituto di ricerche sulla popolazione (IRP) - CNR, Monografie 10/1999, Roma.

Bonifazi C. (2009), "Le migrazioni interne meridionali: vecchi e nuovi ritardi" in neodemos.it.

- Casacchia O., Tagliarini D. (2000), Un'analisi dei flussi in entrata da Roma negli anni 1990-1995 attraverso il modello gravitazionale, SIS, XL Riunione Scientifica, Firenze, pp. 119-122.
- Casacchia O., Giorgi P., Reynaud C., Strozza S., Tucci E., *Italians' and Foreigners' Internal Mobility in Italy: an Application of Gravitational Models*, XLV, Riunione Scientifica, Padua.
- Cassata L. (2005), Modelli di mobilità degli anziani in Italia, tesi di dottorato in demografia.
- Conti C., Guarneri A., Tucci E. (2010), Internal migration flows: a comparison between Italian and foreign population using social network analysis, XLV, Riunione Scientifica, Padua.
- de Filippo E., Strozza S. (2011), *Le migrazioni interne degli stranieri in Italia*, Sociologia del lavoro, n. 121: 168-195.
- Golini A., Reynaud C. (2010), *South-North population movements in Italy forty years later*, Rivista Italiana di Economia, Demografia e Statistica, vol. LXIV, n. 3, pp. 101-122.
- Istat (2009), Rapporto annuale. La situazione del Paese nel 2008, Roma.
- Kim K. and Cohen J.E. (2010), Determinants of International Migration Flows to and from Industrialized Countries: A Panel Data Approach Beyond Gravity, International Migration Review, vol. 44, winter, pp. 899-932.
- Poulain M. (1981), "Entre la gravitation et l'entropie: un modèle spatiale de la migration interne et son estimation," round table on Mathematical Demograhpy, Internatinal Union ofr the Scientif Studies of Population, (IUSSP), Manila.
- Pugliese E. (2006), *L'Italia tra migrazioni internazionali e migrazioni interne*, Il Mulino, Bologna.
- Ricciardo Lamonica G., Zagaglia B. (2008), *I flussi migratori delle regioni adriatiche: interazioni e determinanti*, in E. Moretti (ed.), "Lungo le sponde dell'Adriatico", Franco Angeli, Milano.
- Ricciardo Lamonica G., Zagaglia B. (2011), Le cause della mobilità interna in Italia: italiani e stranieri a confronto, "Neodemos", July.