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INTERNATIONAL MIGRATION IOM UN MIGRATION

Internal migration patterns of foreign citizens in Italy

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Abstract

Internal migration has a strong impact on population redistribution, and plays a significant role in social cohesion. In Italy, the foreign population is a mosaic made up of minorities with different demographic characteristics. The aim of this study is to unveil, by means of a gravity model and using data from the Italian population register from 2014 to 2017, significant differences between national and foreign citizens' inter-provincial migration patterns. Some migrants, such as the Ukrainian citizens, follow a process of spatial assimilation while others, as in the case of Chinese citizens, respond to the call of migration networks. The role played by the distance of the inter-provincial migration in making these moves is also different, and varies from citizenship to citizenship: Indians and Albanians are more willing to travel longer distances; conversely, Romanians and Ukrainians frequently opt for shorter moves.

INTRODUCTION

After a long history of emigration (Bonifazi, 2013; Pugliese, 2002), from the late 1970s onwards, Italy has itself become a country of immigration (Bonifazi, 2007; Natale & Strozza, 1997; Strozza & De Santis, 2017). Immigration figures have increased over time, reaching unforeseen levels in the first decade of the 21st century. Indeed, Italy and Spain have joined the ranks of the more attractive destinations on the world scale of international migration (Sobotka, 2009; Strozza, 2010). Italy has seen a gradual increase in its resident foreign population, a rise which has stemmed in part from periodic special regularizations of illegal aliens (Bonifazi & Strozza, 2020; Strozza, 2019). According to

data provided by the 2015 Population Registers (PRs), at that time there were more than 5 million foreigners in the country, accounting for over 8% of Italy's resident population (ISTAT, 2020; Strozza & De Santis, 2017).

The origins and characteristics of this group are extremely heterogeneous and, as such, can be considered as a sign of the globalization of migration (Strozza, 2019). It is important to note that the top five citizenships make up half of the total foreign resident population and the top sixteen make up 75% (Strozza, 2019). The groups, defined by the individuals that belong to a specific citizenship, present distinct demographic and social characteristics. Some foreign groups are predominantly female in composition, while others are overwhelmingly represented by males, and both age groups and educational levels are varied. Furthermore, each group shows different migration arrangements, patterns of employment, settlement in the territory and even integration (see, for example, Benassi et al., 2020; Blangiardo & Mirabelli, 2018; Ferrara et al., 2010).

One of the main characteristics of the foreign population resident in Italy is a high intensity of migration within the Italian territory. Some studies in other countries suggested that the internal redistribution of the population has an effect on social cohesion and has therefore become a political issue (Maza et al., 2019; Simpson, 2007). In Italy, several research projects have focussed on the contribution of foreigners to internal migration within the country (Bonifazi et al., 2012; Casacchia et al., 2019; Impicciatore & Strozza, 2016; Rimoldi et al., 2020), revealing higher levels of migration in comparison to Italians, even where demographic characteristics are equal. Much has been written on the comparison between nationals and foreigners (or natives and those who are foreign born), but very little attention has been paid to the comparison between different migratory patterns of the individual citizenships, which make up the complex dynamic of foreign immigration in Italy.

The main goal of this research was to analyse, via the gravity model, the migration flows across Italian provinces (Nomenclature of territorial units for statistics – NUTS 3) of seven of the main foreign groups according to the number of residents by citizenship. The aim was to assess the roles of (a) populations – used as masses, (b) physical distances and (c) other socio-economic factors in relation to the provinces of origin and destination. Additionally, as a group, Italian citizens were added to the list of citizenships selected as a reference in assessing similarities and differences.

Specifically, our aim was to answer the following research questions:

1. Do foreign groups follow a process of spatial assimilation or are they attracted to migration networks?
2. What is the role played by distance in internal migration in implementing those flows, and does this vary between citizenships?
3. Are there any other socio-economic characteristics acting as push or pull factors? How strong are the influences of these characteristics in determining the choice of destination and how do these vary between the selected groups?

The result of this study allows us not only to analyse the determinants of internal migration for each citizenship, but to also examine in depth the analysis of the migratory behaviour of foreigners and to highlight the differences among groups. Moreover, the combined effect of masses and distance helps us understand – through the gravity model theory – the internal migratory model of the different groups, and could also provide the basis for predicting the future redistribution of these citizenships.

This is particularly relevant for migration policy, as internal migration patterns affect residential distribution which in turn can promote or hinder the integration of foreign citizenship. Therefore, the internal migration of immigrants has become an important field of academic interest due to increased political attention to interethnic relations (Finney & Catney, 2012).

THEORETICAL FRAMEWORK AND RESEARCH HYPOTHESES

Internal migration plays a key role in shaping the demographic characteristics of an area (Findlay & Wahba, 2013; Rees et al., 2017). In countries that have undergone considerable international migration flows, some authors have

focussed on the internal migration of foreigners (Belanger & Rogers, 2009; Impicciatore & Strozza, 2016; Reher & Silvestre, 2009) and its impact on internal migration as a whole (Basile et al., 2021; Maza, 2020). The Spatial Assimilation Theory (SAT) and the Migration Network Theory (MNT) are among the theories used in international research with regard to the internal migration of immigrants. According to the SAT, large urban cities were the first settlement choices for immigrants from abroad, but subsequently immigrants tended to settle in a pattern more similar to that of the natives (Gordon, 1964; Massey, 1985; Silvestre & Reher, 2014). According to the MNT, the origin and destination areas of flows are driven by the presence of immigrants' own fellow citizens, thereby reducing the costs of migration and offering more job opportunities (Finney & Simpson, 2008; Massey, 1988; Recaño-Valverde & de Miguel Luken, 2012). The prevalence of one or the other theory can vary from one minority group to another, and applying to all foreigners as a whole could lead to watered-down results.

Another important focus was to compare the internal migration of foreigners to that of nationals (Casacchia et al., 2019; Kritz & Gurak, 2001; Lamonica & Zagaglia, 2013). The greater propensity of foreigners to migrate is the main shared result (Finney & Catney, 2012; Silvestre & Reher, 2014). While the results of studies on migration distance for foreigners in comparison to that of nationals are controversial (Casacchia et al., 2019; Sapiro, 2017) some researchers have identified remarkable differences among the internal migration patterns of ethnic groups (Kritz & Gurak, 2018; Sapiro, 2017; Trevena et al., 2013). Different levels of migration – and of the distance migrated – have also been observed in diverse ethnic groups (Finney & Simpson, 2008).

A foreign population is a mosaic made up of minorities showing different demographic behaviours (Benassi et al., 2020; Strozza & De Santis, 2017). Therefore, we can hypothesize that internal migrant foreign groups assume different migratory behaviours. In Italy, most studies on internal migration have considered the foreign population in its entirety (e.g. Basile et al., 2021; Bonifazi et al., 2021; Impicciatore & Strozza, 2016). This article intends to verify how results change when reference is made to individual foreign citizenships, rather than the total number of foreigners.

The gravity model is an appropriate method for studying different patterns in the internal migration of minority groups (Sapiro, 2017), and has been widely used in internal migration studies (Beine et al., 2015; Cameron, 2018; Poot et al., 2016; Ramos, 2016). The most basic version of this model considers the population in the area of origin, that of the area of destination and the distance between the two areas as explanatory variables of migration. Numerous extended versions of the gravity model have been published that also take into account other socio-economic variables of both the areas of origin and those of destination (e.g. Basile et al., 2021; Mocetti & Porello, 2010; Wajdi et al., 2017).

These variables can be expressed by rates of unemployment of a given province (Fratesi & Percoco, 2014; Piras, 2012) or by the percentage of the population with high educational qualifications (Casacchia et al., 2019; Etzo, 2011; Piras, 2012). This enables the study to examine the role of different explanatory variables by checking for other socio-economic conditions in the different areas.

By using the gravity model, we intended to verify the following hypotheses: H1 – various foreign groups adopt different models of internal migration, some mainly attributable to the process of spatial assimilation and others to the call of migration networks; H2 – the role played by distance is greater for foreigners than for Italians, who are still affected by intense historical, long distance and South-North migration. With respect to distances, we expected to find important differences among the various foreign groups as they display different migration behaviours and a different territorial distribution; H3 – socio-economic factors play an important role in internal migration with significant differences for the various foreign groups due to a plurality of factors (professional and occupational specializations, extent of local roots, etc.).

DATA AND METHODS

We used data based on changes of residence recorded in Municipality Population Registers. These were gathered as administrative data. The individual administrative forms were collated by means of a rolling registration

at municipality level and collected by the Italian National Statistical Institute (ISTAT). Changes in residence data included information on the main demographic characteristics of migrants, such as citizenship. Only the legally resident population was included.

Our analysis focussed on differences between Italian and foreign citizens in their changes of residence between the 110 provinces of Italy. The data for each citizenship group therefore comprised origin-destination matrices with 110 rows * 110 columns, but we ignored the diagonal cells because their within-province movement is prompted primarily by housing satisfaction and family changes (Biagi et al., 2011) rather than the economic reasons that are our prime interest. We had one matrix for each group. We used interprovincial changes of residence from 1.1.2014 to 31.12.2017. We had four years of data that we considered as a whole to minimize the number of cells equal to zero. We considered the seven most numerous foreign citizenships registered in the PR. First, a descriptive analysis was carried out by citizenships.[1] We calculated some territorial indicators for each citizenship to describe their different distribution in our country.

A gravity model was applied per citizenship. The model considered the migration flows as directly proportional to the population size of both origin (P_i) and destination provinces (P_j), and inversely proportional to the distance between the province of origin and the province of destination (D_{ij}).

We calculated the distance between the province's geographical centre, adopting the triangular definitions of distance. We used a Poisson-type specification of the gravity model (Flores et al., 2013) and Poisson Pseudo-Maximum Likelihood (PPML) estimators (Metulini et al., 2018; Santos-Silva & Tenreyro, 2011). The PPML function was tested for cross-sectional data.

We applied the extended gravity model (Casacchia et al., 2019) in which we considered two populations in both origin and destination provinces: the size of the population of the specific citizenship ($P_i^{C}$and P_j^{C}) and the size of population outside that group (hereafter called the 'other' population) (P_i^{OR} and P_j^{OR}). The populations in the province of origin were considered as population at risk while those in the province of destination were pull factors.

The size of the specific citizenship population in the province of destination could be considered as a proxy of the network's role (Heider et al., 2020). A recent paper showed that the estimation of the gravity model, for Italian and foreign populations, provides a more accurate explanation of the role played by the different masses when the number of Italian and foreign populations are considered separately (Casacchia et al., 2019). The distance is commonly used as a proxy of unmeasurable migration costs (Etzo, 2011; Flores et al., 2013; Maza et al., 2019). Distance has a negative effect: the greater the distance between origin and destination, the smaller the migration flows (Kim & Cohen, 2010). Although studies on distance have been controversial, we put forward the hypothesis that the effect of distance is stronger for a certain number of foreign citizenships than for Italians (Casacchia et al., 2019). Furthermore, we included the unemployment rate (U_i and U_j) as a proxy of the labour market, and the percentage of highly educated adults aged 25–64 (E_i and E_j) as a proxy of human capital. The first variable refers to 2016, the mid-point in the period considered, while the second refers to the 2011 population census. There is empirical evidence that unemployment rates and human capital are the main determinants of migration flows across Italian regions (Fratesi & Percoco, 2014; Piras, 2012, 2017). The coefficient for the unemployment rate in the province of origin was expected to have a positive effect on out-flow and a negative effect on in-flow in the same province. The coefficient for the percentage of highly educated adults was expected to be positive, above all, in the provinces of origin. A high level of education is associated with a greater demand for educated people and, consequently, with higher in-flows (Wajdi et al., 2017).

We added two other variables to control geographical conditions (Lewer & Van de Berg, 2008) because the PPML estimator required cross-sectional independence of observations, achievable with the inclusion of dummy variables (Bertoli & Moraga, 2015). The first was the contiguity of provinces ($cont_{ij}$) represented by a shared border between them ($cont_{ij} = 1$ if there is contiguity and $cont_{ij} = 0$ if not). The second variable was membership of the same macro geographical areas (North, Centre and South)[2] (sa_{ij}), which is a dummy variable equal to 1 for pairs of provinces belonging to the same macro geographical areas and 0 otherwise. We included the contiguity dummy in

our model to take into account the effect of the spatial contiguity (Flores et al., 2013; Lewer & Van den Berg, 2008; van Lottum & Marks, 2012), so we expected a strong positive effect. We considered the same macro geographical area of origin and destination provinces to control the importance of flows among macro geographical areas. In Italy, internal migration has principally been characterized by a pattern of South–North migration because of the'historical' and persistent social economic gap between the Centre–North and the South (Bonifazi et al., 2021). As such, we expected the coefficient of this variable to be negative.

Therefore, our model for each citizenship[3] is:

$$\begin{aligned}\ln F_{ij}^{C} &= \beta_0 + \beta_1 \ln P_i^{C} + \beta_2 \ln P_j^{C} + \beta_3 \ln P_i^{OR} + \beta_4 \ln P_j^{OR} + \beta_5 \ln d_{ij} + \beta_6 \ln U_i + \beta_7 \ln U_j \\ &\quad + \beta_8 \ln E_i + \beta_9 \ln E_j + \beta_{10} \ln \text{cont}_{ij} + \beta_{11} \ln \text{sa}_{ij}\end{aligned}$$

where the assumption here is that migration flows f_{ij} have a Poisson distribution with a conditional mean F_{ij}, that is linked to the independent variables through a logarithmic transformation.

RESULTS

Descriptive results

The analysis focuses on the seven largest resident foreign citizenships as of 1 January 2016, the midpoint of our reporting period, which, as noted above, runs from 1 January 2014 to 31 December 2017. We considered Italian citizens, who make up about 92% of the total population, as a comparison group.

The most substantial foreign citizenship is Romanian (with over 1, 100,000 people, representing about 23% of the foreign population), followed by Albanians and Moroccans with similar levels (between 400,000 and 500,000), next came the Chinese and Ukrainians (270,000 and 230,000, respectively), Filipinos (166,000) and lastly Indians (150,000 inhabitants). In total, these seven foreign citizenships represent 57% of foreign residents in Italy and almost 60% of the total migration of foreigners throughout Italian provinces in the four years considered (Table 1).

The territorial distribution of each foreign citizenship differs from that of other foreign citizenships and Italians. One characteristic of the foreign population in Italy is its concentration in Central and Northern Italy: only 16% of foreigners live in the South, compared with 36% of Italians. Among the foreign citizenships considered, Moroccans have the highest percentage of residents in the North, around 70%, followed by Indians who exceed 60%; only the percentage of Ukrainian (54%) and Filipino (51%) immigrants come close to that of Italians at 44%. Conversely, the South assumes a greater importance for Ukrainians (27% reside in this area) while in Central Italy, the highest percentage is that of Filipinos (37%) compared with 19% of Italians.

It is well known that the internal migration of foreigners in Italy is higher than that of Italians (Casacchia et al., 2019): the rate of interprovincial migration[4] calculated for the total foreign population is more than double the figure for Italians: respectively 18.6 vs. 8.4 per thousand. The result, similar to that which has been observed in other countries with immigration (Finney & Catney, 2012; Finney & Simpson, 2008; Recaño-Valverde & Roig, 2006), is the outcome of both structural factors and different migratory behaviour. From a structural point of view, the foreign population is younger and more concentrated in those age-groups where the propensity to migrate is higher. As far as migratory behaviour is concerned, foreigners tend to move more within a territory, mainly because the social and family ties are, in their case, less strong and robust and sometimes even completely non-existent.

The interprovincial migration rate, calculated for the entire foreign population, is the synthesis of very different values measured for individual foreign citizenships. The Chinese, for instance, show a very high intensity in their migratory behaviour with a rate of 50 per thousand, that is over two and a half times the average for foreigners; Indians, migrate more than other foreign citizenships, with a rate equal to 29.3 per thousand. Filipinos seem

TABLE 1 Some territorial indicators by citizenship. Italy as of 1.1.2016

Country of citizenship	Resident population (000)	% Cumulative of foreigners	% North	% Centre	% South	Interprovincial migration rate ×1000 (a)	Average distance (in km)
Romania	1151	22.9	50.0	31.5	18.5	15.1	279
Albania	468	32.2	61.2	26.7	12.1	14.3	307
Morocco	437	40.9	69.1	14.2	16.7	17.7	268
China	271	46.3	56.3	29.6	14.1	49.7	269
Ukraine	231	50.9	53.9	19.6	26.5	20.3	274
Philippines	166	54.2	53.0	37.2	9.8	12.1	262
India	150	57.2	62.1	24.6	13.3	29.3	343
Total foreigners	5026	100.0	58.7	25.4	15.9	18.6	287
Italy	55,639		44.6	19.4	36.0	8.4	391

Note: (a) ratio between the interprovincial flows (annual mean of 2014–2017 period) and the population at the 1 January 2016.

Source: Authors' calculation from ISTAT data.

to be less mobile than the other groups, their interprovincial migration rate is the lowest observed and is equal to 12 per thousand. The other five foreign citizenships show values in line with the average foreign figure (Table 1).

A high level of migration is not always linked to high levels in the average physical migratory distance from one province to another. Indeed, high levels of migration can be associated with high short-range migration levels while, at the same time, a moderate tendency to migrate may be linked to the cause of travelling over longer distances. Some indications of different trends emerge by observing the average migration distance per citizenship: long average distance results were seen in the Italian group (391 km travelled), followed by the Indians and Albanians (343 and 307 km, respectively). Conversely the Filipino group featured more moderate average distances (Table 1). Furthermore, migration distance is conditioned by many other aspects not taken into account by a descriptive analysis. In this regard, the differential behaviour of the groups could be better understood through an explanatory model with several variables.

The populations

As previously mentioned, the gravity model allowed us to observe the effects that different population sizes, used as masses, have on internal migration for each foreign-group population. More specifically we looked at the population of the specific citizenship in the provinces of origin (hereafter called the population of the specific citizenship of origin) and at the province of destination (the population of the specific citizenship of destination), but also at the 'other' population in both the outgoing (the rest of population of origin) and incoming provinces (the rest of population of destination).

The results of the applied gravity model show that the 'masses', which have the greatest effect on internal migration flows of a specific citizenship, are their specific populations of both the origin and destination (Table 2). Actually, this outcome is true for all seven foreign groups' analyses and for Italians.

As expected, the estimated coefficients related to the population of the specific citizenship of origin, are always positive and highly significant. Indeed, they represent the most important factor as (according to the basic theory of the gravity model) the larger the population in the area of origin, the more people there are who can leave (Chart 1a).

TABLE 2 Parameter estimates of Poisson pseudo-maximum likelihood (PPML)

Parameters (variable)/ citizenship	Romania	Albania	Morocco	China	Ukraine	Philippines	India	Italy
β_0 (constant)	−4.19***	−9.28***	−6.45***	−2.33***	−5.16***	−13.19***	−9.47***	−15.34***
β_1 (size of the citizenship population in origin P_i^F)	0.63***	0.68***	0.67***	0.67***	0.65***	0.64***	0.71***	0.95***
β_2 (size of the citizenship population in destination P_j^F)	0.56***	0.65***	0.54***	0.70***	0.38***	0.58***	0.67***	0.65***
β_3 (size of the other population in origin P_j^h)	0.08***	0.15***	0.06***	0.07***	0.14***	0.06*	0.03*	−0.08***
β_4 (size of the other population in destination P_j^h)	0.14***	0.19***	0.20***	0.10***	0.35***	0.17***	0.13***	0.20***
β_5 (Distance d_{ij})	−0.78***	−0.59***	−0.69***	−0.70***	−0.77***	−0.69***	−0.45***	−0.58***
β_6 (contiguity $cont_{ij}$)	1.48***	1.25***	1.70***	0.63***	1.51***	1.09***	1.24***	1.64***
β_7 (same major region sr_{ij})	−0.05***	−0.20***	−0.02	0.22***	−0.25***	0.40***	−0.08***	−0.31***
β_8 (unemployment rate in origin U_i)	0.53***	0.66***	0.61***	0.35***	0.65***	0.76***	0.96***	0.38***
β_9 (unemployment rate in destination U_j)	−0.47***	−0.27***	0.10***	0.32***	−0.76***	0.07*	0.10***	−0.06***
β_{10} (percentage of highly educated adults in origin E_i)	0.46***	0.14*	−0.16**	−0.52***	−0.14*	1.20***	0.44**	0.48***
β_{11} (percentage of highly educated adults in destination E_j)	−0.07*	0.13*	0.34***	0.06	0.45***	0.85***	−0.11.	0.70***
Residual deviance of null model (11.989 degree of freedom)	245,465	92,571	124,909	200,373	88,215	49,256	79,322	5,137,240
Residual deviance of model (11.978 degree of freedom)	36,970	25,162	29,611	38,730	19,294	10,463	18,233	763,541
AIC of null model	269,454	106,630	139,373	217,782	98,093	53,607	88,480	5,202,760
AIC of model	60,981	39,243	44,097	56,161	29,194	14,836	27,414	829,083

Note: Coefficient of independent variables on the inter-provincial migratory flows by citizenship.
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' '

Even the estimated coefficients related to the population of the specific citizenship of destination are always positive and very significant, mainly because the size of the population of the specific citizenship of destination is an important pull factor for the role that migration networks continue to play. However, in this case, the estimated coefficients vary among the different citizenships (Chart 1a).

The coefficient of the population of the specific citizenship of origin exceeds that of the population of the specific citizenship of destination for almost all the considered citizenship groups. Only for the Chinese the effect of the population of the specific citizenship of destination (0.70) is slightly higher than that of origin (0.67). The stronger effect of the population of the specific citizenship of destination is in line with the MNT, as the flows are attracted by their own ethnic group and produce further concentration. The importance of ethnic networks is widely acknowledged, and it significantly affects the territorial settlement and employment integration of the Chinese people (Ceccagno,

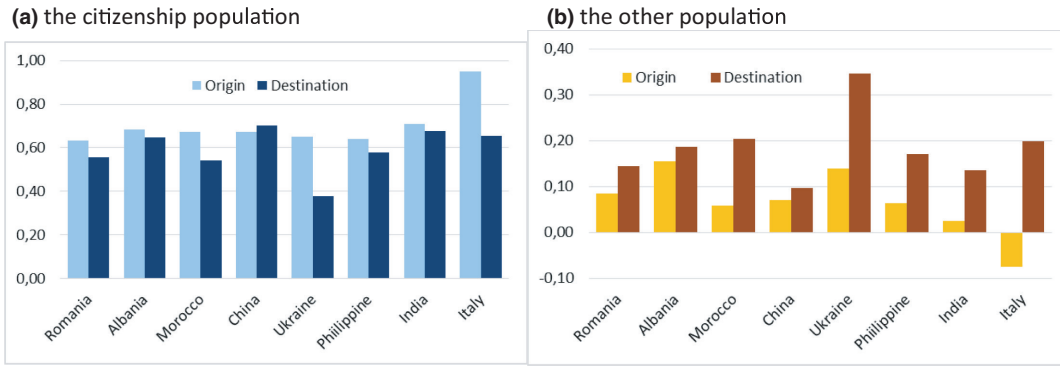

CHART 1 Effects of population by citizenship. *Source*: Authors' calculation from ISTAT data

2003; Chang, 2012; Rimoldi et al., 2020). This can be seen as an example of the possible roles played by social capital and migratory networks in directing internal transfers among the members of some immigrant groups (Gurak & Kritz, 2000; Kritz & Nogle, 1994). Regarding the other six foreign citizenships, the stronger effect of the population of the specific citizenship of origin is in line with the SAT, since we can affirm that the flows do not produce further concentration as a consequence of the network. The Ukrainians registered the highest difference between the estimated coefficient of the size of the population of the specific citizenship of destination and that of origin. As a matter of fact, they were initially concentrated in just a few Italian provinces and only over time has their presence spread to different geographical areas of the Italian peninsula (Benassi et al., 2020; Conti, 2014).

The size of the other population of destination is a proxy of the entire size of the provinces, and has always had a positive and highly significant impact on the internal migration of the foreign groups examined (Chart 1b). These results confirm that the internal migration of foreigners is more flexible and more affected by changes in job opportunities and economic conditions, and this is linked to the opportunities found in those provinces of significant demographic dimensions (Maza, 2020; Prieto-Rosas et al., 2018). The effect of the other population of origin on the internal migration of foreigners is also positive, but continually shows a lower value of the coefficients and is, at times, scarcely significant. Foreigners, specifically Filipinos and Indians, hardly ever emigrate from provinces with a large population, as bigger populations indirectly represent many more job opportunities. The higher coefficient of the other populations of destination perfectly shows how large provinces attract foreigners who contribute to growing urbanization, as in many other European countries (Gans, 2017; Heider et al., 2020).

With regard to the migratory flows of Italians, the Italian population of origin plays the strongest migratory role. The other population of destination, that in this case corresponds to the foreign one, has a direct and statistically significant impact on the size of Italian flows (Table 2). On the contrary, the foreign population of origin has a slight negative effect on Italian internal migration. This is probably due to the higher presence of foreigners in areas with better economic conditions and job opportunities, as foreigners tend to settle in the most dynamic areas of the country (Bonifazi & Marini, 2010; Cangiano & Strozza, 2005). The presence of foreigners is a pull factor for Italians, as a proxy of other variables, but cannot be considered a push factor. A considerable foreign population appears to be an indirect sign of the economic dynamism of a specific territory (Casacchia et al., 2019).

Distance and other geographical variables

It has long been recognized that there is a trade-off between migration levels and the distance of movement. The coefficient for distance quantifies the relationship with the level of migration and it is expected to be negative

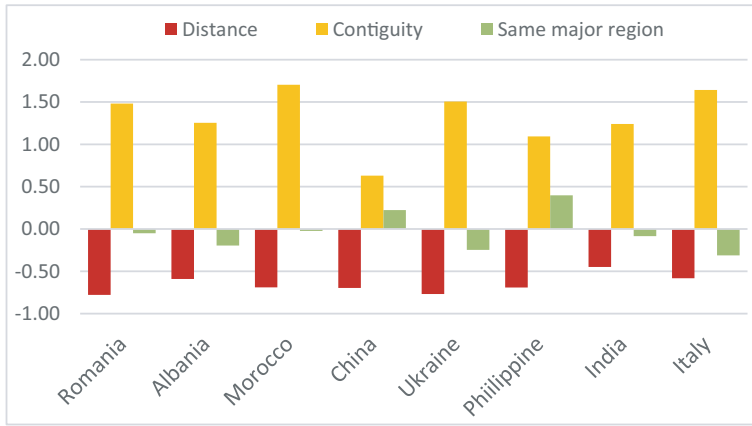

CHART 2 Effects of some geographical variables by citizenship. *Source*: Authors' calculation from ISTAT data

(Table 2). Holding all else constant, interprovincial migration decreases as distance increases. Regarding the subgroups, it has emerged, both in some European countries (Finney & Simpson, 2008; Maza et al., 2019; Vidal & Windzio, 2012) and in Italy (Casacchia et al., 2019; Lamonica & Zagaglia, 2013), that the negative effect of physical distance for foreigners is greater, compared with that of nationals as we found in the descriptive analysis (Table 1). This could be due to the fact that immigrants often live only for a short period of time in the place of their first arrival, and then make short distance movements as they have the chance to improve their housing situation (Silvestre & Reher, 2014). These short-term movements, in some cases, involve different provinces, especially when they refer to movements to and from metropolitan provinces (i.e. Rome, Milan, and Naples).

In actuality, physical distance has a very significant and negative effect on all of the groups considered. This confirms that distance represents one of the basic factors in determining the size of migration flows, and this assumption seems to be particularly true for Romanian and Ukrainian citizens. In fact, for these specific foreign citizenships, the effect of distance is the most important in internal migration, immediately after the preference for neighbouring provinces. Within the Chinese group, the estimated distance coefficient, on a par with the estimated coefficient of their population of destination, seems to be the highest, measured in absolute terms. As also noted in the descriptive analysis, the Chinese, who are already concentrated in some provinces and are attracted by their own network, appear to perform short-distance migration, but not necessarily to neighbouring provinces. The estimated effect of physical distance is greater also in the Moroccan and the Filipino groups. Moreover, while Albanians show a similar level to that of Italians, Indians recorded the lowest negative value (Chart 2). Thus, all groups tend to prefer short-distance travel. Therefore, the increased migration of foreigners and the fact that they have already migrated, does not imply long-distance travel. This result can also be explained by considering physical distance as a proxy for migration costs. Such high values for the estimated distance coefficients prove the importance of this variable even after the introduction of different geographical variables.

The evaluation of the effects of the two variables, that control the geographical condition, namely, contiguity and whether or not they belong to the same macro geographical areas, is very useful, and it allows for some important considerations to be made. With respect to contiguity, the effect, as expected, is always positive. In fact, as noted in many studies (e.g. Bertoli & Moraga, 2015; Van Lottum & Marks, 2012), provinces with a shared border record higher flows. This border effect is lower in the case of the Chinese and stronger in the case of the Moroccans (where the value is similar to that estimated for Italians).

However, in previous investigations (Casacchia et al., 2019), the effect linked to provinces belonging to the same macro geographical areas was negative, probably due to the relevance in the case of Italian migration of

movements from South to North. This analysis is affected by the characteristics of long-range migration, with their associations with the historical dualism between North and South (e.g. Biagi et al., 2011; Bonifazi et al., 2021; Etzo, 2011). Many movements involve migration between these two areas of the country for people in search of employment (from the South to the Centre/North). The estimated coefficient is negative for five foreign citizenships (Romanians, Albanians, Moroccans, Ukrainians, and Indians) and even for Italians who actually show the highest negative coefficient. However, in the case of the Chinese group, and even more so in the Filipino group, a positive effect emerges as a sign of a greater relevance of the flows that develop within the same division. This aspect may depend both on the sectoral nature of labour market and on territorial concentration of each specific foreign group.

Socioeconomic variables

The unemployment rate in the provinces of origin of the migration flows seems to play a direct and significant role on the internal migration of Italians and foreigners. The Chinese group is the only one which shows a lower coefficient compared with that of Italians. In the contrast, the coefficient is particularly high in the Indian and Filipino group and is even more pronounced than that of the Italians. Unemployment in the provinces of destination has a negative effect on internal migration, not only in the case of Italians, but also and more significantly in that of Ukrainians, Romanians and Albanians. In these cases, the general situation of the provincial labour markets seems to direct, at least in part, internal migration flows.

On the other hand, positive values of the coefficient were recorded for the Chinese, Moroccan, Indian and Filipino groups (Table 2). This difference is probably due to the fact that the destinations of the above-mentioned foreign groups are more linked to ethnic-professional specialization (Bonifazi & Marini, 2014; Meliciani & Radicchia, 2016). This specialization seems to influence internal migration choices more than the local labour market situation.

As far as Italian internal migration is concerned, the effect of the percentage of highly educated adults, both in the province of origin and of destination, is significant and positive. In other words, migration levels are more numerous when they occur between provinces where a more educated population is present. This happens for at least two reasons: one is the greater propensity of more highly educated people to move, and the other is the better job and life opportunities present in areas with greater human capital. To be precise, the percentage of highly educated people is calculated over the population as a whole and essentially indicates the social context of origin and destination within which the largest migration takes place. Only in the case of the Filipinos the coefficients are both positive and highly significant. Indeed, the internal migration of the Filipino group, who are mainly employed in domestic services for highly qualified Italians, occurs mainly in the metropolitan provinces located in the central-northern part of the Italian peninsula, where educational levels are higher. The coefficients regarding the Albanians are both positive, but barely significant. Romanians and Indians show a positive coefficient relative to the percentage of highly educated adults in the area of origin, while the coefficient of the destination area is scarcely significant. Conversely, Moroccans and Ukrainians present a negative coefficient relative to the percentage of highly educated adults in the area of origin, while the coefficient for the area of destination is positive.

CONCLUDING DISCUSSION

As Italy has also become one of the most important countries for immigration, it is now at the centre of a dense network of intense migratory relations, with a multiplicity of immigrant groups that make up a rich puzzle in terms of the weight, characteristics, conditions and perspectives of the various groups involved (Strozza, 2019). This is an evolving framework that brings various issues to the attention of scholars and policy makers and which spans

the management of the immigration flows to the integration of those foreign citizens who are already present in the territory.

We focussed on the internal migration of single foreign citizenships, a phenomenon that has been less explored and inadequately addressed in recent studies. The attention of scholars and researchers has in fact focussed on the analysis of international migration and, when concerned with internal movements, foreign citizens were often treated as a single group. In Italy, the phenomenon of internal migration has contributed the most to the change in the structure and redistribution of the resident population. Indeed, every year about 1,300,000 people change their municipality of residence and among those that do, more or less 300,000 have foreign citizenship. It was therefore interesting to understand which factors mostly characterize the flows of individual foreign groups within the territory.

First, as stated in the first research question, the aim of the research consisted in finding out whether the internal migration of foreigners followed a process of spatial assimilation, or if it tended to be influenced by migration networks.

The analysis, based on the results of the gravity model, has shown that significant differences are played by population networks in affecting the level of internal migration of foreign citizenships. The importance of migration networks is very high for Chinese, Albanian and Indian nationals, but is less so for other foreign groups. In particular, the effect of the population of the specific citizenship of destination, seen as a pull factor, was only highest for Chinese citizens. In this case, one can assume that Chinese citizens tend to concentrate in specific areas as the presence of fellow citizens plays a predominant role. The model, however, shows completely opposite values regarding Ukrainian citizens: the effect of the Ukrainian population of destination is far lower than the effect of the Ukrainian population of origin. Furthermore, this tendency of spreading across a territory was confirmed by the comparison between the role played by the Ukrainian population of destination (0.38) and the other population of destination (0.35), which, shows that for this particular group, the presence of other citizens is not relevant when choosing the place of destination. Therefore, Ukrainian residents seem to follow a process of spatial assimilation.

For the remaining foreign groups, the effect of the population of the specific citizenship of origin exceeds that of the target masses and, therefore, as in the case of Ukrainians, it is possible to assume a process of spatial assimilation is taking place, albeit at a slower pace.

For all foreign citizenship, the size of the other population of destination has a more positive and highly significant impact on the internal migration of all foreign citizenships than that of origin. This result shows the higher flexibility of foreigners, who are more affected by changes in job opportunities and economic conditions, in moving to find opportunities located in those provinces with a major demographic dimension.

As for the second research question, the aim was to verify the role played by the distance of internal migration in moving, and how this varies between groups.

Although distance has a negative effect on all groups, there are significant differences between groups in just how much a deterrent distance actually is on the choice of the place of destination. As a matter of fact, the analysis has proved that, according to the gravity model, the migration of Romanian, Ukrainian, Moroccan and Filipino nationals is more affected by distance than by the populations. While Indians are an exception, the analysis confirms that foreigners are more affected by distance than Italians are.

With regard to the effect of the socio-economic characteristics stated in the last research question, the research shows that a high unemployment rate does not always discourage the arrival of new immigrants, namely that of Chinese, Moroccan, Indian and Filipino citizens. In fact, in many cases a specific labour market sector in which citizens of each foreign group are mostly employed could affect the internal migration of each foreign group and attract new migration flows, rather than affecting the trend of the labour market overall. In particular, the importance of migratory networks among the Chinese may also depend on their particular participation in the economic system. The importance of entrepreneurial activities, often of an ethnic nature and with the frequent

presence of employees of the same nationality, strengthens the link with compatriots, affecting the choice of destinations for internal migration.

Generally speaking, the results of the suggested analysis show that the population sizes generally have coefficients which are always significant and of the same sign for all foreign groups. Conversely, socio-economic indicators differ from one group to another, both in terms of significance and of sign, and as such contribute significantly to defining diverse patterns of internal migration in Italy. The research also paves the way for further analysis aimed at contributing to the preparation and assessment of political strategies of socio-economic inclusion for each single foreign population. The results of these applications could provide planners and policy makers with the tools to understand the current situation and offer an insight on the tendency for the future distribution of the examined subgroups of the population. Internal migration can promote integration and improve territorial distribution of foreign minority groups present in the territory, as has been the case for the Italians themselves.

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PEER REVIEW

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from Italian National Institute of Statistics (ISTAT). Restrictions apply to the availability of these data, which were used under license for this study. Data are available upon request at the link below https://contact.istat.it/index.php?Lingua=Inglese.

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ENDNOTES

1. We rely on citizenship to identify the foreign groups: this approach classifies as Italian all those who have acquired Italian citizenship before they move. The information on the people that have acquired Italian citizenship is not available, being an exception at the census date—there were 670,000 naturalized persons on 9th October, 2011. According to recent estimates, this figure had become around 1.34 million at the end of 2017 (ISTAT, 2019). Their weight varies significantly among the groups considered.
2. We reduced the five major socio-economic regions (NUTS 1) to three by aggregating North-East with North-West namely 'North' and South with the Islands as 'South'. This resulted in three macro geographical areas North, Centre, and South.
3. We also applied a unique model by using a factor variable to take into account the flows of each citizenship, but in this way, we could not consider the significance of variables. We presented the most interesting results of every model by the significance of the variables. Furthermore, for each citizenship we considered the Akaike Information Criterion (AIC) and the residual deviance of each model, which measured the goodness of model.
4. The rate of interprovincial migration is calculated as the ratio of the annual average of movement among the provinces observed in the period 2014–2017 and the population on 1st January, 2016, which is considered to be an average population.

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