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The Effects of Globalisation on Regional Migration in Italy

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Abstract

In recent years there has been a considerable influx of better-educated migrants from the South to the North of Italy. Responding to the need of more research on this rapidly growing 'new' migrant group in Italy, this study examines how globalisation impacts upon the composition of regional migration in terms of age, and education. We find that globalisation significantly affects migration flows (number of migrants attracted by the region of destination) for both better and less-educated workers. More precisely, it affects better-educated workers' migration to a higher extent than that of less educated workers. In addition, better-educated workers' migration is negatively affected by unemployment rate differentials (the difference in unemployment between destination and origin regions), whereas less-educated workers' migration is negatively affected by house prices differentials (the difference of house price between destination and origin regions). A higher presence of foreign immigrants in the region of destination reduces migration flows for both better and less educated workers. Regarding the age variable, we find very similar results for young and old workers' migration. When focusing on migration flows from the South to the North of Italy, globalisation and foreign immigration have a role for both better and lower-educated migrants. Unemployment rate differentials particularly matter for less educated and younger migrants.

Keywords

Globalisation, economic disparities, inter-regional migration, Italy

Introduction

The economics of migration has received increased attention over the last decade. Scholars have examined the flow of migrants in relation to a wide range of socio-cultural and economic factors. The analysis in this paper focuses on two related economic issues. How does globalisation affect regional migration (as measured by the number of migrants attracted by the region of destination) in Italy; and secondly, how does globalisation affect the composition of migration in terms of migrants' age and education? Economists have attempted various explanations for the existence of regional migration in Italy, but little attention has been given to the effects that globalisation has on regional migration, especially from the South to the North of Italy.

Analysing the economics of migration in Italy, economists have focused on the puzzling persistence of regional disparities in unemployment rates and the presence of low migration flows observed in Italy from the mid-1970s to the mid-1990s. According to Attanasio and Padoa-Schioppa (1991) and Faini et al. (1997), a possible rationale for this puzzle lies in the income support contributed by families to the members who have been unemployed for a long period of time. Cannari et al. (2000) suggest that the spread of housing price differentials could have limited migration flows. This is not surprising given that housing prices would increase more in the most dynamic regions than in the depressed ones. In a third hypothesis, Bentolila (1997) suggests that the low mobility could be connected with the general environment of great discouragement and pessimism

which occurs when the national rate of unemployment is high, even in the presence of regional unemployment differentials.

This paper contributes to existing knowledge by investigating the effects of globalisation on regional migration in Italy. Our economic rationale is that globalisation would contribute to increasing economic disparities and thus generate larger migration flows. This hypothesis is in accordance with claim often made in the trade literature (see, among others, Ottaviano 2012) that, under free trade, industrial activities with increasing returns tend to locate in areas with good market access ('the centre'), and move away from remote ones ('the periphery').

The paper is structured as follows. The section immediately following considers the main determinants of regional migration, providing an interpretative framework which is useful to shed light on the results of this study. This is followed by a discussion of our methodological approach. Then we present and discuss our empirical findings, followed by a conclusion.

Literature review on the determinants of migration

The economic literature has investigated the reasons for migration through a number of landmark studies (for instance Sjastaad 1962; Lee 1966; Todaro 1969; Greenwood 1985; Borjas 1989). For the purpose of this paper we review selected contributions focusing on the motivations underlying regional migration.

The mainstream theoretical economic explanations for modelling the existence of migration are the frameworks of Todaro (1969) and Borjas (1987). In these models, an individual's decision to migrate is affected by earning differentials and migration costs (including the cost of travel, the cost of searching for a new job or home, the cost of terminating a current job or selling a home, the cost of adaptation to the new place and the cost of relocating their households). These models predict that workers decide to move if they expect to receive from migration an increase in overall net future earnings. Of course, if these individuals have a 'reservation wage' (the lowest wage they would accept in a potentially new region of residence), they would reject any opportunities that yield a wage below that level. According to Sjastaad (1962) and Borjas (1987), the main determinants of regional migration are labour-market variables including wage, employment and unemployment rates. Indeed, migrants decide to move away from local and regional labour markets where the return on their individual skills is relatively low, and head towards other labour markets where the return is relatively higher.

When economists have looked into such issues with the intent of providing a rigorous model-based analysis, one approach in defining migration has been to consider migrants as job-seekers. In this view, migrants are expected to move away from high-unemployment areas where they are unable to find a job, and to go towards low-unemployment regions where the prospects of finding employment are more favourable (Greenwood 1975; Molho 1986).

Greenwood (1997) indicates that both individual and family characteristics are important in driving individual decisions to migrate. For example, it may be that older and less-educated workers are more likely to drop out of labour force, since the opportunity cost of doing so is not very high. Family conditions such as owing a house also tend to discourage the worker from moving to another labour-market area (Long 1974; Sandell 1977; Mincer 1978; Van Dijk et al. 1989). Conversely, younger and more highly-educated workers may more readily move in search of a new job, because their opportunity cost of remaining unemployed is relatively high (Greenwood 1997).

Greenwood (1978), Topel (1986), Blanchard and Katz (1992) and others suggest that differences in local labour-market conditions play an important role in migration. Greenwood (1978) finds that rising employment levels in destination regions in Mexico accelerate in-migration. Topel (1986) and Blanchard and Katz (1992) find evidence of a positive relationship between local labour market conditions and migration flows. Specifically, Topel (1986) finds that the local labour demand shocks impact less-skilled workers to a larger extent than high-skilled workers. With reference to labour-market conditions, Schultz (1982) gives an account of the positive influence of wage gap rather than employment opportunities on less-educated workers' migration. In contrast, for migrants with more education, the author finds that the elasticity of migration with respect to employment is greater than with respect to wages.

Other scholars have acknowledged the importance of non-economic factors in migrant decision-making, and have attempted to model migration flows with quality-of-life factors included as explanatory variables in the migration equation (for example, Cebula 2005). Of course, migrants prefer areas with a higher quality of life such as a greater availability of parks, more sunshine, warmer temperatures and a lower crime rate as well as a lower presence of hazardous waste sites.

In the Italian context, there are alternative explanations of the existence of inter-regional migration. Faini et al. (1997) suggests that household support and government transfers play an important role in areas of the South of Italy as they make the condition of being unemployed more affordable. Cannari et al. (2000) show how housing prices can affect regional migration. In particular, they find that regional permanent income deflated by consumer price indices cannot completely explain regional migration in Italy without introducing housing costs. Piras (2012) discusses the impact of regional GDP and unemployment differentials on regional migration, focusing on the educational level of migrants. He provides evidence of GDP and unemployment differentials in Italian regions being linked especially to migrants with higher education.

Nifo and Vecchione (2013) suggest that institutional and environmental factors should be considered among the factors affecting migration in Italy. According to these authors, people decide to migrate not only to have better chances of employment and higher wages, but also to live in cities where the environment is overall more amenable, living and working conditions are better, and professional and social opportunities more

interesting. For these reasons, the quality of local institutions, meant as the level and quality of essential services such as health, security, transport and culture, would emerge as another important determinant of migration.

Another issue, widely investigated by scholars especially in the US, refers to the impact of foreign immigrant flows on natives' migration. Although there are some studies suggesting that immigrants' inflows have a negligible impact on the migration of natives, other research argues that immigrants have a positive impact if they have different skill-sets from natives so that they are complementary to, and not competitive with, native workers. Card (2001), for instance, finds that inflows of new immigrants put more supply pressure on less-educated natives than on other native groups. Card and DiNardo (2000) examine whether immigration inflows change the distribution of native-born skills in the US. Within the lowest skill group, immigration seems to displace natives. Hatton and Tani (2005) suggests that immigration induces native-born residents to relocate to other cities, either because of a softening in the labour market or because of other factors about the locality that they perceive as becoming less attractive with the presence of immigrants. In Italy, limited attention has been devoted to this issue. One study investigating how the flow of immigrants affects native regional migration is Mocetti and Porello (2010). They find that the prevalence of immigrants in parts of the North of Italy induces a higher demand for highly educated migrants, while it depresses the labour demand for unskilled migrants. Brucker et al. (2011), using data for natives from the South to the North in Italy, have addressed the same problem by applying the panel cointegration method. A very different result is found in their model. For Italy, the presence of foreign workers in the labour force of the destination regions discourages the internal labour mobility of Italians.

The effect of globalisation on migration: our hypothesis

In the theoretical literature reviewed in the previous section, migration is considered as depending on employment opportunities, wages, costs of living, and costs of housing. Challenging the usual explanations for the existence of migration, we hypothesise that migration is also the result of a 'globalisation' effect. Our hypothesis is that globalisation increases regional migration flows. A possible reason for this is that migrants having preference for a higher wage tend to move to more industrialised regions. Another reason is that the flow of workers is strongly related to the concentration of industrial activities, which means higher employment opportunities. For our chosen case-study, the implicit assumption is that globalisation has asymmetric effects on Italian regions. This is confirmed by three main observations: one, the skill upgrading of the employed labour force registered in the North but not in the South; two, the widening gap between the North and the South in recent times that could be responsible for the resurgence of internal migration flows;[1] three, evidence of higher levels of education in Italy, which have affected both the North and South of the country (Celi and Sportelli 2004). In what

[1]Also the processes of restructuring of northern Italian firms since the 1990s through the creation of new international linkages in the value chain could also have displaced previous (subcontracting) links with southern Italian firms, fostering migration outflows from the South.

follows we provide a brief literature review and theoretical underpinning of our hypothesis.

Celi and Segnana (2000) compare the products exported by the firms located in the North and in the South of Italy with those of emerging countries (in terms of factor content). They find that the goods exported by northern firms exhibit complementarity in terms of factor content of trade with those of emerging countries, whereas the products exported by the firms located in the South are substitutes for goods imported from emerging countries (in terms of factor content as well). These authors point out that, while northern exports have a relative content of skilled labour significantly higher than that of imports from developing countries, the relative skilled-labour content of southern exports is much closer to that of goods imported from developing countries. This is confirmed by Accetturo et al. (2010), who find that the Italian provinces with a higher propensity to export in the period 2004-2007 (most of them located in the North-East of the country) show a significant increase in the education level of the employed workforce.

Some recent studies have argued that the performance of Italian enterprises in productivity and employment, and in skill upgrading among the employed workforce is related not just to exports but also to FDI outflows and international outsourcing.[2] Nevertheless, the regional dummies included in their regressions show that this virtuous link between internationalisation and firm performance turns out to be especially true for the North but not for the South.

Analysing the intensification of subcontracting relationships between Italian firms in the 1990s and considering explicitly the regional disparities, Giunta et al. (2012) show that, contrary to the North of Italy, in the South firms show little progress in terms of technological innovation, propensity to export, or increasing productivity in subcontractor enterprises. It seems that southern firms are incapable of freeing themselves from the stage of captive supplier, and remain in a situation of subordination and vulnerability towards competitive pressures.

Bugamelli et al. (2009) provide evidence of the impact of the recent crisis on Italian firms' production and suggest that firms which embarked on restructuring their production between 2000 and 2006 showed a less pronounced decline in demand in 2008 and 2009. Among the 'restructured' enterprises, the production units that showed a stronger performance – in terms of skill upgrading of employment, market diversification, and product quality – especially during the acute phase of depression (in

[2] Barba Navaretti and Castellani (2004) and Castellani et al. (2008) found that Italian firms engaged in FDI recorded a positive effect in terms of skill composition of employment and/or productivity. Even Daveri and Jona Lasilio (2008) found positive effects on productivity, but with reference to Italian enterprises which implemented international offshoring of intermediate inputs. While Helg and Tajoli (2005) reported a positive relationship between international fragmentation of production and relative demand for skilled labour in Italy, Falzoni and Tajoli (2008) found more nuanced results depending on the sectors concerned. If the previous contributions emphasised the positive effects of internationalisation on the performance of Italian firms, Costa and Ferri (2007) and Bertoli (2008) warned about the negative impact of production relocation abroad on employment in Italian subcontracting firms.

2009), were those located in the North. By contrast, in the case of firms located in the South, econometric results showed a low capacity for internationalisation and considerable difficulty in finding sources of funding.

Accetturo et al. (2011) provide further evidence, focusing on Italy's 'intermediate' enterprises (firms involved in global value chains) and scrutinise their relative vulnerability in the face of falling demand, nationally and internationally, in 2008-2009. If their study does not explicitly assess the regional dimension of the impact of the crisis on the structure of Italian production, it does suggest that it is the 'marginal' firms (those that did not display any progress in their repositioning in the value chain) that are the most affected by the crisis. This explanation offers a clue to the nature of the recent recession, that is has been an asymmetric shock, and that it has expressed itself in territorial terms.

The next section identifies the econometric specifications needed to test the hypotheses introduced above, which can now be formally stated as follows.

H1. *How does globalisation affect migration flows in Italy?*

H2. *What are its effects on flows of migrants when they are better educated rather than lower educated? And what is its effect of flows of migrants when they are in older age?*

To our knowledge, there are few studies validating these hypotheses with empirical evidence.

Empirical model and descriptive statistics: impact of globalisation and other determinants

In this section, we examine the impact of globalisation and other determinants on regional migration in Italy. The dependent variable in the analysis is the regional migration flows calculated as the annual changes of residence from one region to another within Italy. We want to ascertain the importance of unemployment, globalisation, cost of housing, and foreign immigration in decisions related to the regional migration of native Italians. This informs our baseline econometric specification (Equation 1):

$$\text{(Equation 1)} \quad MIGRATION_{ij} = \beta_1 + \beta_2 TRADE_{ij} + \beta_3 UNEMPL\_RATE_{ij} + \beta_4 IMMIG\_SHARE_{ij} + \beta_5 HOUSE\_PRICE_{ij} + \varepsilon$$

Where *i* is an index for the region of origin and *j* is an index for the region of destination; TRADE is the ratio of exports and imports to GDP – this indicator accounts for differences in degree of openness across regions. UNEMP_RATE is the unemployment rate; it measures the job opportunities in a region and hence affects the expected income. IMMIG_SHARE is the percentage of foreign immigrants and HOUSE_PRICE is the house price (in logarithm); it is traditionally used to 'deflate' the income prospect in a region. All explanatory variables are expressed as differences between the region of destination and the region of origin. To avoid a simultaneity effect and to account for information on which natives base their decisions to moves, we relate current migration flows to lagged values for all the explanatory variables.

The hypothesis is that migration flows are enhanced as a result of globalisation. We expect the coefficient β_3 to be significantly negative. That is, regions of destination showing lower unemployment rates display high flows of migration, after controlling for globalisation, foreign immigration, and housing effects.

As far as foreign immigration is concerned there are two possible effects of globalisation, but with opposite signs. On the one hand, foreign immigration in the regions of destination may increase flows of migration. This means that foreign immigration does not compete with native migration. On the other hand, if foreigners establish an implicit commitment to ensure the hiring of their family or if they are illiterate or of lower education, and thus increase crime and violence in the regions of destination, migration flows may decrease. The migration flows are hypothesised to be adversely affected by housing price. Higher housing prices in the destination regions are expected to decrease migration flows, *ceteris paribus*.

Data on trade and unemployment are drawn from the *Istituto Nazionale di Statistica* (ISTAT; National Statistics Office). Data on cost of housing are drawn from *Il Sole 24 Ore Scenari Immobiliari*, which reports the market quotations of dwellings located in the 96 provincial capitals of Italy. Regional migration flows are drawn from the General Population Register (GPR).[3]

We explore the composition of internal migration flows, distinguishing between low and high-educated migrants, and between young and old migrants.[4] This information allows verifying which of the determinants has favourable impact on low- and high-educated migration flows, and on young and old migrants.

Globalisation is assumed to raise flows of better-educated migrants rather than lower-educated ones. The rationale for this hypothesis lies in the fact that globalisation is thought to create better-paid occupations requiring better education; better-educated migrants are expected to enter skilled occupations, and hence to migrate. Given that older migrants tend to have less confidence and self-awareness to challenge rooted customs, they are hypothesised to be adversely affected by globalisation.

Furthermore, we test for the significance of globalisation and other determinants in migration flows from the southern to the northern regions of Italy. The reason for this hypothesis is that globalisation should bring positive effects on labour markets in the northern regions of Italy. Given the regional divide, it may be the case that globalisation shifts labour-demand as well as labour-supply schedules in the northern regions of Italy and attracts labour-force migration from the South of Italy. We refer to the period 1995-

[3]The annual data for the period 1995-2005 on regional migration are from Mocetti and Porello (2010).
[4]We use three educational dummies for at most compulsory school, upper secondary school and university degree, and three age dummies for young people, people aged between 15 and 45, and for older people aged over 45.

2005 for reasons of data availability. Panel analysis allows us to control for fixed effects.[5] Descriptive statistics of our explanatory and dependent variables are reported in Tables 1 and 2, whilst Table 3 summarises our statistical data sources and the likely expected sign of the analysis.

Table 1. Migration flows for better and lower educated, for young and old

	Migration flows			Migration flows	
		Better educated	Lower educated	Young	Old
Min	0	0	0	0	0
Max	83,630	15,100	83,630	83,630	32,100
Mean	334	75	464	642	203
SD	2,280	453	2,766	3,516	1,221

Table 2. Globalisation, unemployment, foreign immigration and housing price

Globalisation			Regressors		
	% Trade		% Unemployment rate	% Foreign immigration	Housing prices
Min	1.7		2.51	0.13	1,237
Max	51.8		24.46	23.09	3,200
Mean	23.3		10.16	4.99	2,119
SD	12.7		5.48	5.75	434.38

[5] The Hausman test is used as a statistical tool for determining whether a fixed or random effect model is most appropriate (see Wooldridge 2002), but is not shown in Tables 4-9.

Table 3. Dependent and independent variables, sources of data, and expected sign.

Description		Source	Expected sign
MIGRATION	Migration flows in destination regions/population in destination regions	Mocetti and Porello (2010)	
TRADE	Export plus import/gross domestic product	ISTAT (2015a)	+
UNEMP_RATE	Unemployment rate	ISTAT (2015b)	-
IMMIG_SHARE	Share of foreign immigrants	ISTAT (2015c)	+/-
HOUSE_PRICE	Housing prices	Il Sole 24 Ore (2012)	-

Main Results

In this section, we test whether globalisation, the unemployment rate, house prices, and immigration differentials have influence on the internal migration of natives in Italy (Table 4). We also examine their effects on the composition of migration flows, distinguishing between low- and high-educated migration flows (Table 5), and young and older people (Table 6). Finally, we examine how these econometric specifications differ from those where the migration flows go from the southern to the northern regions of Italy (Tables 7-9).

In Table 4 we report the coefficients and *t*-values associated with the house-price variable, the unemployment rate, globalisation and foreign immigrants' share variables in Equation 1. All explanatory variables measure the difference in variables between the region of destination and the region of origin. The migration flows indicate the number of native migrants attracted by the region of destination.

Table 4. Impact of trade and other determinants on internal migration (whole sample)

Explanatory variables	Coefficients
TRADE	0.479*** (3.56)
UNEMP_RATE	-0.683*** (-3.41)
HOUSE PRICE (in logs)	-0.018 (-0.57)
IMMIGRANTS' SHARE	-1.774*** (-5.98)

Notes: Fixed effects panel data estimation. Year dummies, educational and age dummies are included but not shown. Number of observations: 29,207; Pseudo–R squared 54%. In brackets are t-statistics. ***Two tailed-tests significant at $p<0.001$, **Two-tailed-tests significant at $p<0.05$, *Two-tailed-tests significant at $p<0.10$.

The coefficient associated with the globalisation/trade differential is positive and significant at the 1% level of significance. It suggests that, on average, the greater the 'openness' (read: globalisation) in the region of destination relative to the region of origin, the greater the mobility from the region of origin to the region of destination. The difference in the unemployment rate (i.e. a higher unemployment rate in the region of destination with respect to the region of origin) is negatively related with the migrant flows attracted by the region of destination. In other words, migration tends to be lower when employment opportunities in the region of destination decrease. Housing price differential has the expected sign but is largely insignificant. The foreign immigrations' share variable is negative and significant at 1%, indicating that if the immigration's share grow in the region of destination with respect to the region of origin, the migration flows from the region of origin to the region of destination decrease. This result seems in contrast to Mocetti and Porello's study (2010) showing the existence of complementarities between natives and foreign immigrants, i.e. foreign immigration is positively associated with inflows of natives. However, when we look at migrants reporting high or low education (see Table 5), high-educated migration flows are negatively affected by the share of foreign immigrants, but less compared to low-educated ones.

In Table 5, we examine the differential effects of globalisation and other determinants across two education-specific migration groups: the low-educated and the high-educated migrants. A greater openness in the region of destination is significantly and positively related to high-educated mobility, confirming the idea that in case of higher competition for labour force due to globalisation in destination areas, high-educated migrants tend to respond positively. As we will see later, this effect of globalisation on internal migration will be strikingly positive when running regression relating to migration from the South to the North of Italy (see Table 8). The higher unemployment rate for regions of destination is instead related negatively to high-educated mobility, which means that high-educated migrants are less attracted by destination areas characterised by low employment opportunities. The high-educated mobility is negatively

related to the share of foreign immigrants in destination areas, although the magnitude of the effect is lower than low-educated migrants. This result may be explained referring both to the substitutability between foreign immigrants and natives, but also to the attractive power of the destination area which may diminish with a higher presence of immigrants.

For low-educated migrants, the flow increases when trade is of a higher extent in the destination area, confirming results found for the high-educated migrants' sample. An important difference is that low-educated migrants' flow is also influenced by the price of housing. Interestingly, unlike the high-educated migrants' sample, the migration decision for low-educated natives is affected by the cost of migration. Similar to the regression for high-educated migrants, the share of immigrants is negative and significant. The higher the share of immigrants in the area of destination, the lower the attraction held for low-educated migrants.

Table 5. Impact of trade and other determinants on high-educated and low-educated migration flows (whole sample)

Explanatory variables	**HIGH-EDUCATED Coefficients**	**LOW-EDUCATED Coefficients**
TRADE	0.298*** (2.04)	0.871*** (3.53)
UNEMP_RATE	-1.009*** (-4.64)	0.087 (0.24)
HOUSE_PRICE (in logs)	0.013 (0.38)	-0.079** (-1.34)
IMMIGRANTS' SHARE	-0.722** (-2.22)	-4.710*** (-8.91)

Notes: The dependent variable is the migration flows for high and low-educated migrants. Fixed effects panel estimation (7914 observations for high-educated migrants and 21,290 observations for low-educated migrants). In brackets are t-statistics. The adjusted R squared is 57% for high-educated and 54% for low-educated migrants. Age dummies and year dummies are included but not shown. ***Two tailed-tests significant at p<0.001, **Two-tailed-tests significant at p<0.05, *Two-tailed-tests significant at p<0.10

When controlling for migrants' age, the coefficient associated with the globalisation differential is positive and statistically significant for both young and old migrants, revealing how globalisation has a positive impact on labour migration (Table 6). Young and old migrants leave their origin area when the destination areas become more globalised and competitive. Unlike the older migrants' sample, the unemployment rate and the housing price differentials are other important factors prompting young worker migrants to leave. They both have the expected sign and are significant in the young migration flows, suggesting that house prices and the lack of employment opportunities restrain migration flows of young people. The increase of the share of immigrants in destination area, instead, decreases labour market participation among both young and old migrants.

Table 6. Impact of trade and other determinants on young and old migrants' flows (whole sample)

Explanatory variables	**YOUNG Coefficients**	**OLD Coefficients**
TRADE	0.388*** (2.44)	0.596*** (3.24)
UNEMP_RATE	-1.013*** (-4.29)	-0.048 (-0.17)
HOUSE_PRICE (in logs)	-0.069* (-1.82)	-0.022 (-0.50)
IMMIGRANTS' SHARE	-2.261*** (-6.36)	-1.420*** (-3.56)

Notes: The dependent variable is the number of young and old migrants attracted by the destination region. Fixed effects panel estimation (12,850 observations for young migrants and 12,081 observations for old migrants). In brackets are t-statistics. The adjusted R squared is 22% for young and 39% for old migrants. . ***Two tailed-tests significant at p<0.01, **Two-tailed-tests significant at p<0.05, *Two-tailed-tests significant at p<0.10. Education and year dummies are included but not shown.

Results: sample of workers who emigrate from the South to the North of Italy

This section explores how globalisation, unemployment, housing costs, and the share of immigrants influence migration flows from the regions of South Italy to those of North Italy (Tables 7-9). Firstly we explore the effects on the whole sample of migrants from the South to the North of Italy (Table 7). Second, such effects are examined separately for low-educated and high-educated migrants (Table 8), and for young and old migrants (Table 9).

Table 7. Impact of trade, and other determinants on internal migration (North sample)

Explanatory variables	**Coefficients**
HOUSE PRICE (in logs)	0.022 (0.56)
UNEMP_RATE	-0.356* (-1.51)
GLOBALISATION	0.829*** (5.34)
IMMIGRANTS' SHARE	-1.312*** (-3.93)

Notes: The dependent variable is the migration flows from the South to the North of Italy. Fixed effects panel estimation (22,285 observations). In brackets are t-statistics. The adjusted R squared is 57%. Educational, age, and year dummies are included but not shown. ***Two tailed-tests significant at p<0.01, **Two-tailed-tests significant at p<0.05, *Two-tailed-tests significant at p<0.10.

Higher unemployment rate differentials decrease the extent of workers' migration from the South to the North of Italy (although only significant at 10%). Globalised regions instead increase the migration flows. A higher proportion of immigrants by destination region reduces the migration flows from South to North.

Results show that the higher proportion of trade by the destination area improves migration of both high- and low-educated people (Table 8). In particular, the trade differential produces higher migration flows for high-educated workers but less so for low-educated ones (lower magnitude of the coefficient). Such findings validate our hypothesis. When looking at migration flows from the South to the North of Italy, globalisation exercises a higher impact over migration flows for high-educated workers than for low-educated ones. High-educated workers' migration is not affected by northern unemployment rates, whereas higher northern unemployment rates hamper low-educated workers' migration. Neither high- nor low-educated workers' migration seems affected by the housing cost differential.

Table 8. Impact of trade and other determinants on high-educated and low-educated migration flows (North sample)

Explanatory variables	**HIGH-EDUCATED Coefficients**	**LOW-EDUCATED Coefficients**
TRADE	1.548*** (5.49)	0.613*** (3.59)
UNEMP_RATE	0.547 (1.26)	-0.741*** (-2.89)
HOUSE_PRICE (in logs)	0.009 (0.14)	0.016 (0.39)
IMMIGRANTS' SHARE	-5.521*** (-9.33)	0.318 (0.86)

Notes: The dependent variable is the flows of migrants from the south to the north of Italy for high-educated and low-educated migrants. Fixed-effects panel data estimation (6070 observations for high-educated migrants and 16,215 observations for low-educated migrants). In brackets are t-statistics. The adjusted R squared is 60% for high-educated and 56% for low-educated migrants. Age, and year dummies are included but not shown. ***Two tailed-tests significant at $p<0.01$, **Two-tailed-tests significant at $p<0.05$, *Two-tailed-tests significant at $p<0.10$.

High-educated workers' migration instead is significantly and negatively affected by a higher differential in the percentage of immigrants. In addition, compared to the whole sample where the low-educated workers' migration was strongly and negatively related to the immigration share, in this sample of workers who migrate from the South to the North of Italy, high-educated workers' migration is negatively related to foreign migrants' share. This finding does not confirm the hypothesis that high-educated workers' migration is not affected by foreign immigration. Thus, we may interpret this result as

destination regions having less attractive power when the share of foreign immigrants increases.

We also find that the globalisation differential, i.e. the difference in trade among the areas of destination and the areas of origin, improves young and old workers' migration. Higher unemployment rates in the areas of destination compared to those of origin negatively influence the migration flows for young workers. They do not have any impact on the migration flows for older workers. Immigrants' differential is significant with a negative sign in the migration flows for both young and old workers, indicating lower migration flows when there is an immigration gap in favour of destination areas.

Table 9. Impact of trade and other determinants on young and old migrants' flows (North sample)

Explanatory variables	**YOUNG Coefficients**	**OLD Coefficients**
TRADE	0.895*** (4.94)	0.875*** (4.13)
UNEMP_RATE	-0.591*** (-2.17)	0.204 (0.63)
HOUSE_PRICE (in logs)	0.039 (0.88)	-0.008 (-0.14)
IMMIGRANTS' SHARE	-1.704*** (-4.33)	-1.294*** (-2.90)

Notes: The dependent variable is the flows of migrants from the south to the north of Italy for young and old migrants. Fixed-effects panel data estimation (9793 observations for young migrants and 9244 observations for old migrants). In brackets are t-statistics. The adjusted R squared is 22% for young and 39% for old migrants. Educational and year dummies are included but not shown. ***Two tailed-tests significant at $p<0.01$, **Two-tailed-tests significant at $p<0.05$, *Two-tailed-tests significant at $p<0.10$.

Conclusions

In this paper we have looked at the relationship between globalisation and migration flows, issues of great concern in Europe. The focus of the paper is the re-emergence of internal migration flows in Italy in recent years and their interplay with globalisation and international migration.

Given the multi-dimensionality of migration, when exploring the reasons for the existence of migration flows in Italy we have found that scholars suggest a variety of different socio-economic explanations. Our contribution has been to bring into the analysis the asymmetric effects of globalisation to assess the validity of the hypothesis that regional 'openness' can help to explain migration flows, especially those from the South to the North of Italy.

Our empirical evidence shows that both better- and lower-educated workers migrate when, in the region of destination, the degree of trade is higher compared to the region of origin. In particular, we confirm the relevance of asymmetric effects of globalisation in boosting migration flows of better-educated workers coming from the South of Italy.

What are the policy implications of these results? Primarily this empirical evidence leads us to think about future prospects of the Italian North-South economic divide that has also widened in recent years as a result of different paths undertaken by Italian regions in the dynamics of international economic integration. Of course, in the analyses of Italian regional disparities, other important factors have to be underlined such as institutions, social capital, the education system, and organised crime. However, these factors have been often overemphasised (or considered in isolation) at the expense of other factors referring to the economic structural changes of Italian regions occurring alongside global changes in division of labour. In this regard, it is worth mentioning the deterioration of economic linkages between Germany and Southern Europe in the last two decades as a result of the relocation of segments of the German value-chain towards Central and Eastern European countries. This reorientation of German international economic links could have displaced previous subcontracting relationships undertaken with Southern firms, with detrimental effects in terms of unemployment and emigration.

To conclude, if asymmetric globalisation has contributed to the increasing migration of skilled labour from the Southern to the Northern regions of Italy, any simple measures of skill upgrading of the labour force – through training and increase in the level of education – that are not accompanied by a thickening and requalification of Southern Italy's production system (in a broader context of rebalancing economic relationships in Europe), risk perpetuating a situation of migration outflows from the South of Italy. Clearly, these human-capital losses, which mainly concern individuals with a high level of education, would compromise the socio-economic development of the South of Italy in the long run.

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