

Migration, ethnic concentration and firm entry: Evidence from Italian regions

Abstract

There is a growing body of literature highlighting the positive contributions of migration and diasporas to economic growth, innovation and productivity. One of the channels facilitating these effects is entrepreneurship. This paper provides novel empirical evidence concerning the link between migration and firm entry across Italian regions during 2004–2014, and the study explores the role of ethnic concentration in this context. The results show that the stock of foreign population is positively correlated with firm entry. Furthermore, this relationship varies across business sectors and firms' legal status, and it benefits from the existence of local networks within diaspora communities in the host region.

1. Introduction

A growing body of theoretical and empirical evidence supports the positive contributions of migration and diasporas to economic growth and technological change. A common finding in this field of research is that migrants foster innovation and productivity, which consequently stimulates long-term growth (e.g. Hunt and Gauthier-Loiselle, 2010; Bosetti et al., 2015). Several studies focus on the important role played by communities on the move in overcoming market flaws (especially asymmetric information), facilitating bilateral trade and knowledge flows between the host and home countries and promoting the diffusion of technology and capital accumulation (Parrilli, 2012).

Several contributions highlight the propensity of migrant and minority communities for self-employment (Aldrich and Waldinger, 1990; Baycan-Levent and Nijkamp, 2009), which also promotes economic development. Anecdotal evidence suggests that migrants make a substantial contribution to entrepreneurship (OECD, 2010). In the last ten years, the number of foreign-born entrepreneurs in the EU has increased by 52.6% on average, reaching 2,085,300 in 2015 (IDOS, 2016). Although new ventures set up by migrants tend to be widely heterogeneous in terms of type and scope, the economic returns created by the existence of migrant-owned businesses are far from trivial (OECD, 2006).

The overall impact of migration on the host country's level of entrepreneurship depends on both migrants' propensity for self-employment and their spillover/crowding-out effects on natives' entrepreneurial attitudes. Understanding which effect prevails requires empirical investigation. Existing studies provide conflicting results, either showing the crowding-out or stimulating effects of immigration on the entrepreneurial activities of natives (Fairlie and Meyer, 1998, 2003).

In this paper, we examine the relationship between migration and entrepreneurship. Entrepreneurship is broadly defined as the creation of new ventures, and it is measured as the rate of firm creation (Duleep et al., 2012) across Italian regions. Italy is the EU member state with the largest presence of non-EU entrepreneurs (197,300) and the largest increase (+76%) (after the UK: +140%) in the number of migrant entrepreneurs since early 2000 (IDOS, 2015; 2016). Unlike the Anglo-Saxon and northern European countries that are able to attract high-skilled migration, migrant flows to Italy are largely composed of low-skilled individuals. In 2001, Italy's percentage of tertiary-educated migrants was

15.4%, which was significantly lower than those of Canada (59%), the US (43%), the UK (35%) and Germany (22%) (Bratti and Conti, 2014).

Given this peculiarity, the present paper helps to elucidate the link between (low-skilled) migration and firm entry, providing novel empirical evidence and exploring the role of ethnic concentration in the context of southern Europe. Unlike most of the existing empirical literature on the topic, we do not focus solely on migrants' propensity to take up self-employment. Rather, we investigate how the local presence of immigrants is related to the area's overall rate of entrepreneurship.

This work is structured as follows. Section 2 provides a review of the relevant literature and Section 3 describes the data used in the analysis. The empirical strategy is discussed in Section 4, and Section 5 discusses the estimation results. Section 6 presents the paper's conclusions.

2. Literature Review

The contributions of migrants to host country productivity and innovation have been extensively investigated. Conversely, evidence on the relationship between migration and firm entry is still rather scarce, and it mostly refers to skilled migrants. Hunt (2011) observes a higher probability of creating a start-up among skilled migrants compared to US natives with similar education levels. Likewise, Wadhwa et al. (2007) found that more than 25% of science and technology-based firms set up in the US between 1995 and 2005 have at least one migrant founder.

The picture is less clear for the relationship between firm entry and overall migration patterns. The factors that can affect the propensity of migrants to create their own businesses are related to both the macroeconomic context and migrants' ethnicity and distinguishing characteristics (Vinogradov and Kolvereid, 2010). Education (Hammarstedt, 2004), language differences (Min, 1993) and ethnic concentration (Light and Bhachu, 1993b) can influence migrants' entrepreneurship, although in general, migrants from countries with higher rates of entrepreneurship are more prone to self-employment after migration (Hammarstedt, 2001).

High rates of self-employment among migrants can be found in the OECD countries (OECD, 2010), Europe (Baycan-Levent and Nijkamp, 2009) and Italy (Mingione, 2009). Positive selection into migration might result in a pool of highly skilled, strongly motivated migrants with good entrepreneurial abilities. These individuals that face lower opportunity costs of investing in new skills or ways of working may be more likely to engage in disruptive business models (Duleep et al., 2012). Borjas (1986) provides evidence that migrants to the US show higher rates of self-employment than the native population. The results are similar for several European countries. Irastorza and Pena (2007) for Spain and Clark and Drinkwater (2000) for the UK observe that migrants have a higher chance of becoming entrepreneurs compared to natives. In the case of Germany, Constant and Zimmermann (2006) show that migrants and natives start their own businesses under the same motivational and contextual conditions but that the pay-off is relatively higher for migrants.

The presence of a foreign-born population, in addition to affecting entrepreneurship directly through migrant-owned activities, might also influence natives' preferences for self-employment. For the US, Fairlie and Meyer (2003) use the US Census data from 1990 and 2000 to show that immigration has a crowding-out effect on the probability of the self-employment of native non-blacks, although a previous study (Fairlie and Meyer 1998) observed no significant effects on the self-employment rates of native-born blacks.

Theoretically, an increasing foreign-born population could have two counteracting effects on native entrepreneurship. If labour demand is held constant, an inflow of immigrant self-employed workers will increase the supply of this type of labour and depress the overall returns to self-employment. In this case, natives may be discouraged and move away from entrepreneurial activities. However, if we also account for the labour demand effects, there might be an additional demand for goods and services offered by self-employed workers that would generate higher returns and make entrepreneurship more attractive (also for natives). The net effect on the overall firm entry rate will thus depend on which of the two effects prevails.

In the case of Italy, the relationship between migration and firm entry has been studied only at the city or industrial district level, and most of this evidence shows a positive correlation. Italy became a

destination country relatively recently compared to northern and western Europe. Patterns of “social segregation and ghettoization” are more sporadic compared to similar countries, such as Spain and Greece (Mingione, 2009, p. 226). Migrants in Italy adopt various adaptation strategies that seek to respond to market needs not covered by natives, often through entrepreneurial patterns of business exploitation (Barberis, 2008; Colombi et al., 2002). According to Quassoli (2002, p. 220) “migrant workers rarely substitute for domestic workers. More often, they tend to occupy jobs unwanted by Italians”. Similarly, Mingione (2009, p. 229-230) states that in Italy, “immigrant entrepreneurship uses the resources available in the ethnic community and expands easily in contexts and sectors in which it does not have to compete with native entrepreneurs” and that the migrant “rate of entrepreneurship is decidedly higher than average”. If this holds for Italy, we should observe no crowding-out effect on native self-employment.

Based on these findings, we propose the following hypothesis:

H1: Overall, we expect a positive relationship between migration and firm entry rates in the Italian market.

Several authors argue that local socio-economic and institutional factors are as important as individual characteristics for determining migrants’ entry into self-employment. These factors are linked to both the characteristics of the local economic context and to the role of migrant networks in facilitating entrepreneurial activities. We separately examine these aspects.

Entering self-employment can be a “reactive” strategy (Nathan, 2014) that allows migrants to address social exclusion and the relatively greater difficulty to acquire paid employment compared to native workers (Borjas, 1986; Parker, 2009). However, the opportunities of migrants to enter self-employment are shaped by a variety of market-related factors operating at the contextual level (Kloosterman and Rath, 2001). For instance, northern Europe has higher rates of self-employment than southern Europe (OECD, 2011) where the costs of setting up a business are significantly higher. In particular, although Italy has the largest share of small and medium enterprises in Europe, it also has the highest firm entry costs (Klapper et al., 2006). Since bureaucratic procedures and the resulting entry costs vary substantially both across and within countries, depending on the firm’s size and legal status, the types of firms owned by natives and non-natives are often very different. In particular, due to bureaucratic

costs and the difficulties migrant entrepreneurs face in accessing credit from the banking system, Italy is one of the countries “where the proportion of migrant entrepreneurs who only employ themselves is the highest (approximately 75%)” (OECD, 2011: 156).

In addition, entry costs differ across sectors of activity due to the different capital endowments required to start new businesses. For instance, the service sector has very different entry and exit dynamics compared to the manufacturing sector (Brixy and Grotz, 2007), and these may greatly influence the choices of migrant entrepreneurs who are likely to be more credit-constrained than their native counterparts. In line with this observation, Card and Lewis (2007) show that migrants contribute mainly to productivity and efficiency in low-tech industries. Moreover, Fairlie and Lofstrom (2013) provide evidence of the specialization patterns of migrant business ownership in the construction and service sector. It can be expected that the relationship between migration and firm entry rates will vary with the sector and legal status of the newly created firm. Thus, we hypothesize the following:

H2: The relationship between migration and firm entry rates is heterogeneous across firms' activity sectors and legal status. Given that migrants in Italy are mostly low-skilled individuals, we expect the investigated relationship to be stronger for self-employment and in low-tech manufacturing sectors.

The effect of migrants on firm entry rates may also be related to the presence in the host region of individuals from the same ethnic community (Light 1984; Aldrich and Waldinger 1990; Kloosterman and Rath 2001). When migrants are setting up businesses, these communities may provide easier access to information, particularly with respect to bureaucratic procedures and finance (Parker, 2009). The migrants may provide local demand for the goods produced by their fellow countrywomen/men and an available source of labour (Edin et al., 2003). Thus, a higher concentration of immigrants of the same ethnicity represents a larger potential market of reference for migrants' business initiatives (Evans, 1989). In other words, the presence of a larger community in the host country may increase the opportunities for self-employment and entrepreneurship (Le, 1999).

However, it has also been argued that ethnic communities may hinder migrants' contributions to entrepreneurial activities. Migrants often tend to segregate into ethnic enclaves that generally overlap with less productive, peripheral areas in which successful market entry is more problematic (Fischer

and Massey, 2000). The over-exploitation of ethnic community preferences (especially in terms of consumption goods) could exacerbate market competition. The existence of ethnic community networks may serve to help migrants enter paid employment, rather than pushing them towards entrepreneurial activities. The degree of local ethnic concentration may also have a negative effect on the rate of native entry into self-employment. In fact, empirical evidence provides support for natives' emigration patterns from areas characterized by a growing ethnic minority population (Accetturo et al., 2014; Frey 1995).

The direction in which the concentration of ethnic communities is expected to influence the overall propensity to become an entrepreneur is not clear *a priori*. While several authors point to the benefits derived from migrants' embeddedness in large communities of the same ethnicity (Evans, 1989; Light and Bhachu, 1993a), others claim that it is the mix of cultural diversity that enhances the propensity of migrants to create their own businesses (Vandor and Franke, 2016; Portes, 2000). Evidence is also mixed in the case of Italy. On the one hand, Ceccagno (2007) shows that although migrants' businesses may serve the non-ethnic market, their economic success depends largely on being embedded in the origin community. On the other hand, Mingione (2009, p. 230) states that "immigrants entrepreneurs contribute to the wider market by breaking out from their own ethnic enclave. [...] The fragmentation and dispersion of the ethnic communities no longer favour ethnic enclaves or niches of ethnic entrepreneurship [...] but rather new typologies where ethnicity [...] specializations cumulate".

Given these mixed empirical insights, it is difficult to *ex ante* hypothesize regarding whether firm entry in the Italian market is favoured more by a large ethnic concentration or by the local presence of small and heterogeneous ethnic communities. Therefore, we hypothesize the following:

H3: The effect of ethnic concentration on the rate of firm entry is expected to be positive if it translates into a stronger network capable of increasing the potential market for migrants' business activities and reducing transaction costs. However, this effect is expected to be negative if the segregated ethnic enclaves favour incumbent entrepreneurs who hire individuals from the same ethnic community into paid employment.

3. Data and Descriptive Statistics

3.1 Entrepreneurship

As previously specified, we are interested in investigating the relationship between migration and firm entry rates, which are considered a good measure of entrepreneurship (*cf.* Santarelli and Vivarelli, 2007). Information on firm entry across Italian administrative regions is contained in the Infocamere dataset. (http://www.infocamere.it/movimprese/-/asset_publisher/ueRnd4KL4Z0I/content/dati-totali-imprese-1995-2015)

We analyse data from 2002 to 2015. In 2015, the number of firm entries across the whole country was almost 372,000, the lowest value since 2002 (Appendix A, Figure 1A). The trend has been steadily negative since the onset of the crisis with a brief but temporary recovery in 2010 when a 6.5% annual increase was registered. Distinguishing newly created firms by legal status shows that more than 60% of entries are self-employment enterprises. Although relatively stable over time, this share was slightly affected by the crisis. In 2007, there were more than 270,000 new self-employed, while in 2015 this figure decreased to 232,000.

The geographical distribution of firm entries is highly heterogeneous across regions, as displayed in Appendix A, Figures 2A and 3A.

3.2 Migration

Official annual data on the foreign population in Italy are collected by the Municipal Population Registry Offices and made available by the Italian National Institute for Statistics (Istat). We follow Istat's definition of the foreign population that includes all residents of foreign (non-Italian) nationality. Italy has become one of the major European destinations for international migrants with a foreign population that massively increased in recent years. In 2002, there were approximately 1,335,000 legal migrants in Italy. At the beginning of 2015, this number had increased almost five-fold to over 5 million people.

This huge increase in numbers is not distributed evenly across regions. Traditionally, northern regions and large cities attracted and still attract larger shares of migrants than the rest of the country (Jayet et

al., 2010), while southern regions have the lowest incidence of migrants. Although disparities in migrants' distribution between the north and south of Italy have decreased over time, heterogeneity across regions remains evident (Appendix A, Figures 4A and 5A) (*cf* Bettin et al., 2017).

Network and herd effects explain why migrants of the same ethnic origin tend to congregate. Moreover, it can be expected that as a single nationality group grows, its spatial dispersion will increase. To obtain a synthetic measure of the concentration of different nationalities at the regional level, we built a Herfindahl-Hirschman (H-HI)-type index calculated as $HHI = \sum_{i=1}^n q_i^2 * 100$, where q_i is the share of migrants from country i in the total migrant population at the regional level, and n is the number of different nationalities in each region. The index is always positive and varies between 0 (maximum level of fractionalization) and 10,000 (a single foreign nationality).

4. Empirical Strategy

Our econometric analysis includes the 20 Italian regions over the years 2004–2014. It is based on the following specification:

$$Entry Rate_{it} = \alpha + \beta Migration_{it} + \delta X_{it} + \tau_t + \varepsilon_{it} \quad (1)$$

The dependent variable ($Entry Rate_{it}$) is an index of firm entry in region i at time t . It is calculated either by including all firms or by focusing on a specific group of firms based on either legal form (Self-employment, Partnership, or Limited Company) or activity sector (Manufacturing, Construction, Low-Skilled Services, or High-Skilled Services). Conceptually, we define low-skilled services as those service sectors generally characterized by a low-skilled labour force and define high-skilled services as those relying on more highly skilled workers. Appendix Table 1A reports the Nace sectors characterizing both categories of services. As in Garofoli (1994), these indices are expressed as the number of newly created firms per 1,000 inhabitants. $Migration_{it}$ is the foreign population stock living in region i at the beginning of time t , which we expect to show a positive correlation (expressed by the coefficient β in Equation 1) with the dependent variable.

X_{it} includes a set of local socio-economic characteristics that are related to firm creation, including value added, population, unemployment, total credit, human resources and institutional quality. The gross value added captures the size of the regional economic activity, which is expected to be positively correlated with firm entry. Population is the count of residents in the region at the beginning of each year. To the extent that population size proxies for the local demand for goods and services, we would expect a positive association with firm entry. The unemployment rate is indicative of the opportunity cost of opening a new firm and, in line with necessity entrepreneurship theory (Storey, 1991), it is expected to be positively correlated with firm entry. Total loans to the private sector can be considered as a proxy for (the absence) of financial constraints faced by new firms (Aghion et al., 2007) and are expected to be positively correlated with our dependent variable. The share of the high-skilled population (*Human Resource*) is expected to exert a positive influence on firm creation, especially in skill-intensive sectors. However, in the Italian context, firms are mostly specialized in medium-tech and low-tech industries, and there is a relative lack of a highly skilled entrepreneurial culture (Muffatto et al., 2014). There is also evidence that more innovative regions tend to register slightly lower rates of high-tech firm entry (Ramaciotti and Rizzo, 2015).

In this study, institutional quality is proxied by an index developed by Nifo and Vecchione (2014), which encompasses a wide range of factors, including “Government Effectiveness”, “Regulatory Quality”, “Rule of Law” and “Corruption”. This index is time-invariant, but its inclusion is warranted to capture potential unobserved heterogeneity in our specification. Data description and descriptive statistics are presented in Table 2A in the Appendix, while the correlation matrix is presented in Table 3A.

Methodologically, we rely on the Ordinary Least Squares (OLS) estimates with robust standard errors. Given the limited dimension of our panel and the fact that we include variables that are highly persistent (or even time-invariant), using a Fixed Effects (FE) estimator would not be optimal, although it is better suited for tackling unobserved heterogeneity. In addition, FE estimates rely on the assumption of strict exogeneity of all the regressors, which are assumed to be uncorrelated to the idiosyncratic error term in each time period $(\varepsilon_{it} | x_{i1}, x_{i2} \dots x_{iT}, c_i) = 0$ for $t=1 \dots T$, where c_i is the individual effect (see Wooldridge, 2002). Given that this is a stronger assumption than assuming the absence of contemporaneous

correlation as in OLS estimates and may be highly disputable in our model, we adopt a more conservative strategy by presenting the OLS as our main specification and the FE as a robustness check. Conversely, the OLS requires that $(E(X_{it}\varepsilon_{it}) = 0 \text{ for } t=1\dots T)$, which may fail to hold in the presence of omitted factors. Therefore, we include several controls to minimize this risk while ensuring that the model remains parsimonious and free from severe collinearity issues. Finally, we note that all specifications include year fixed effects and present robust standard errors.

To test research hypothesis 3, the main specification in Equation 1 is augmented to include the Concentration Index mentioned above in which a higher value of the index points to fewer, larger nationality groups in the region.

Section 5.2 includes a series of robustness checks. First, although Garofoli (1994) stresses that the number of newly created firms divided by local resident population is the best proxy for firm entry in Italy, a common approach is to standardize the number of new firms entering the market during period t with respect to the number of active firms at the beginning of the period (see, e.g., Sutaria and Hicks, 2004).

We then test for the consistency of our main results using two different estimation techniques, including a FE model and an IV approach in order to mitigate the potential endogeneity of the estimated β coefficient in Equation 1. A high rate of firm entry might work as a pull factor, attracting migrants to more dynamic and successful regions, and thereby generating a reverse-causality bias in our estimates. For this reason, we present two different IV approaches for dealing with potential endogeneity. First, following the contribution by Reed (2015), we use a set of internal variables as instruments for migration at time t . The intuition behind his approach is that when the lagged values of the endogenous independent variable do not belong in their respective estimating equations (as in our case), they can be used as instruments in an IV setting. This approach holds only if these internal instruments are sufficiently correlated to the simultaneously determined explanatory variables. In this study, we present all three different options proposed by the author. In the first, we use the second lag of migration as an instrument. In the second, we use the first two lags of migration. In the third, we use the first lags of both the migration and the dependent variable (see Reed, 2015). In line with Dustmann et al. (2005), we also

use three and four-period lags of the migration variable whose exogeneity with respect to current economic conditions is less disputable. Measures of past migrants' settlement patterns in a country have been widely exploited in the migration literature as instruments for current migrant stocks (Card, 2001). Migrants usually settle in areas with a high concentration of individuals from the same cultural, linguistic and ethnic background (Bartel, 1989). Therefore, past locations are good predictors of current ones. Moreover, a sufficiently lagged immigrant distribution is unlikely to be correlated to current firms' entry rates, which are very sensitive to current economic conditions. To this end, we employ 1991 and 2001 Census data on migrant stocks in each region. They are unfortunately time-invariant, but they allow us to exploit a longer lag with respect to the current situation.

Despite the adoption of IV techniques and the inclusion of regional FE in the robustness checks, our regressions provide results that can be seen more as correlations than causal effects. This is due to the time-variant confounding factors that might affect both firm creation and the presence of foreign residents that were not handled by our set of covariates.

5. Results

5.1 Main specification

Table 1 reports the result of our main specification in Equation 1. We first consider all newly created firms and then differentiate them by legal status and sector. The coefficient of migration is always positive and strongly significant. In the full sample, a 1% increase in the stock of foreign population is associated with a 0.84 increase in the regional firm entry rate. However, this magnitude changes with firms' legal status, from 0.49 for Self-employment to 0.26 for Limited Companies and 0.13 for Partnerships. Similarly, the correlation is stronger for low-skill-intensive services (0.26) compared to manufacturing (0.12), construction (0.14) and high-skill-intensive services (0.065).

The overall positive relationship between migration and firm entry rate does not allow us to reject hypothesis 1. These results are in line with existing evidence on migrant workers in Italy in which migrants are predominantly low-skilled and tend to take manual-intensive and routine-type

occupations in the domestic, elderly-care, construction and manufacturing sectors (Bettin et al., 2014; Bratti and Conti, 2014). In terms of legal status, the vast majority of migrants' enterprises in Italy consist of single-partner companies whose set up does not involve excessive bureaucratic procedures and which lend themselves to reduced or sometimes discontinuous initial investments and related risks (IDOS, 2016).

TABLE 1

For the other independent variables, these behave as expected based on the literature relating regional characteristics and firm entry rates in Italy. In the full sample, we note a positive and significant coefficient for the level of unemployment (Santarelli et al., 2009), institutional quality, and availability of credit (Garofoli, 1994). Conversely, we observe a negative relationship between firm entry rates and the share of the high-skilled population, indicating that regions with a greater availability of qualified workers tend to have lower rates of market entry. Qualitatively similar evidence is also provided by Garofoli (1994), who reported that negative entry rates were associated with higher numbers of graduate students. The population coefficient is also negative, indicating a lower entry rate per 1,000 inhabitants in the most populous regions.

Table 2 reports the results for the migration coefficient in more refined samples in which firms were differentiated based on both their legal status and sector. We note a significant correlation in all the specifications regarding entry into self-employment in either manufacturing, construction or both types of services. For the full sample in Table 1, the highest coefficient is for self-employment in the low-skill-intensive service sector and the lowest is for high-skill-intensive services, with construction and manufacturing falling between these two. For partnerships, the association is positive and significant only for the manufacturing and construction sectors and non-significant for both service categories. Finally, for limited companies, the relationship is positive for manufacturing and low-skill-intensive services and not significant for construction and high-skill-intensive services.

These results provide evidence of the heterogeneous relationships between migration and firm entry rates across sectors and legal forms. Therefore, Hypothesis 2 cannot be rejected and our results are in line with the expectations for a context characterized predominantly by low-skilled migration inflows.

TABLE 2

Tables 3 and 4 relate firm entry rates to the HHI index, a proxy for ethnic concentration. Table 3 mirrors the results in Table 1. The migration coefficient is always positive and significant, and the concentration index is also positively correlated with firm entry for both the whole sample and for the different types of firms. However, if we distinguish by activity sector, we see that this index is positive and significant for construction and low-tech services, negative and significant for the manufacturing sector, and non-significant for the high-tech service sector. The negative sign in the case of manufacturing firms might suggest that scale effects are much stronger for the manufacturing than the services sector. In such a context, networks could play a major role in the recruitment of employees for existing firms rather than promoting the creation of new ones.

Table 1B in Appendix B considers the sample based on legal status and business sector. The results are consistent with those presented in Table 2.

TABLE 3

5.2 Robustness

Appendix B, Table 2B presents the first robustness test that features a different definition of firm entry rate. In this table, the dependent variable is defined as the ratio of newly created over previously existing firms. This check confirms the main evidence since migration is again positively and significantly associated with this (different) indicator of firm entry. The effect in the full sample is driven first by self-employment and then by the manufacturing and construction sectors.

The coefficient of the HHI index (used as a proxy for the concentration of different nationalities at the regional level) is similar to the main analysis, with the exception of self-employment. It is possible that standardizing the entry rate for the stock of previously existing firms captures a different aspect of the network effects suggested in Hypothesis 3. In particular, the effect of a strong, concentrated foreign community in the host country is more pronounced for structured companies (i.e., Partnerships and Limited Companies) after we account for the stock of existing and active firms in the market using this alternative dependent variable.

As a second robustness test, we more formally address the issue of potential multicollinearity among the covariates. On the one hand, the economic rationale behind the inclusion of socio-economic variables (such as value added and population) is clear and well-established in the literature (Noorderhaven et al., 2004), and their exclusion in a cross-sectional setting could amplify the risk of unobserved heterogeneity bias. On the other hand, these variables are strongly correlated to migration (see correlation matrix in Table 3A), since the Variance Inflation Factor (VIF) of these variables is above an acceptable cut-off level. Thus, in Appendix B, Tables 3B to 6B, we replicate our estimates without including those variables highly correlated to migration (value added, population, total credit, and institutional quality). The VIF of these specifications reach at most 2.3, while the corresponding highest value for the migration variable is 1.54. The results show that the effects of both migration and the ethnic concentration index are mostly unchanged with the exclusion of this potential source of multicollinearity. The only notable exception is the partnership sub sample where the effect of migration becomes weaker.

To provide further support for our main specification results, we finally tested the robustness of our results in terms of the estimation method. Table 4 presents the results for Equation 1 estimated by a FE model and three alternative IV-2SLS models. Specifically, Columns 1 to 4 refer to the full sample, and Columns 4 to 8 refer to self-employment, for which, according to the evidence provided to date, the relationship with local foreign population is most relevant. The results are qualitatively consistent with the baseline model in Table 2. The chosen instruments have the expected signs and high explanatory power. The F-statistics for the first stage regression are always well above the cut-off level of 10, which

supports the goodness of our instruments. Furthermore, the coefficients of almost all the IV-2SLS models are of similar size with respect to the benchmark estimation in Table 2, suggesting that reverse causality (if present) is not a source of substantial bias in our results. In contrast, the magnitude of the coefficient of the two FE models is much greater than the benchmark specification in Table 2. This might be due to unobserved regional-level characteristics that are correlated with the presence of migrants and exert a simultaneous negative effect on firm creation rates.

TABLE 4

6. Conclusions

This work contributes to the literature investigating the relationship between migration and firm entry, which has been confined to the US and (to a lesser extent) Europe to date. This case study that focuses on Italian regions analyses firm entry in a low and medium-tech industrial context mostly characterized by low-skilled migration inflows, whereas available evidence is primarily related to the effect of high-skilled migrants on firm entry. The results show an overall positive relationship between migration and firm entry, but heterogeneity emerges across legal statuses and activity sectors. Specifically, the stock of foreign population is positively correlated with self-employment (irrespective of the activity sector) and to firms' creation in the manufacturing sector (irrespective of the firms' legal status). In contrast, the correlation between partnership creation and the local presence of foreign residents seems rather weak (except in the manufacturing sector), although it is more sizeable for low-skill-intensive services. Similarly, in the case of limited companies, a positive significant relationship emerges only in low-skill-intensive service sectors other than manufacturing. Foreign residents in Italy seem to contribute to the creation of firms for which the length and the costs of the start-up process are not excessive. In terms of sectors, they mainly contribute to the creation of low-tech firm types that often require only a small investment to start and consequently imply lower risks. This somewhat mirrors the evidence reported by Bratti and Conti (2014), who observed that migration had no significant effect on innovation activities across Italian regions. Italy has a far lower share of skilled migrants compared to northern

European and Anglo-Saxon countries that have implemented specific programmes designed to attract migrant entrepreneurs (Antecol and Schuetze, 2007). However, in Italy, the few high-skilled migrants are often substantially over-educated with respect to the work they perform, namely, manual-intensive and routine-type occupations in traditional sectors.

Overall, our findings suggest that the contribution of migration is mostly related to necessity entrepreneurship. Further research is required to identify the mechanisms that might either favour or hinder migrants' contributions to those forms of entrepreneurship characterized by higher value and post-entry prospects. However, policy implications for the Italian context can be drawn from this first piece of research on the topic. Migration policies aimed at attracting highly skilled migrants and designed to favour entrepreneurial activities in innovative, high-tech sectors are necessary for Italy to follow the example set by other countries and exploit the potential for innovation and productivity enhancement linked to the presence of a skilled diaspora.

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Table 1. Econometric results (full sample; legal status sub-samples; sector sub-samples).

Sample	Full sample	Self-Employment	Partnership	Limited Company	Manufacturing	Construction	Service (low)	Service (High)
Variables								
Value Added	0.085 [0.498]	-0.080 [0.363]	0.445*** [0.116]	-0.437 [0.283]	-0.638*** [0.105]	0.994*** [0.180]	0.554*** [0.163]	0.521*** [0.089]
Population	-1.682*** [0.354]	0.018 [0.248]	-0.192** [0.088]	-1.318*** [0.282]	0.410*** [0.066]	-0.735*** [0.135]	-0.242* [0.123]	-0.594*** [0.085]
Unemployment	1.334*** [0.291]	0.353* [0.199]	-0.122* [0.066]	0.960*** [0.150]	-0.046 [0.045]	-0.175* [0.093]	0.324*** [0.093]	0.294*** [0.049]
Total Credit	0.622*** [0.222]	-0.438** [0.184]	-0.371*** [0.069]	1.371*** [0.111]	0.104** [0.047]	-0.383*** [0.100]	-0.490*** [0.088]	0.015 [0.052]
Migration	0.849*** [0.143]	0.493*** [0.114]	0.129*** [0.037]	0.261*** [0.065]	0.119*** [0.032]	0.142*** [0.046]	0.259*** [0.053]	0.065*** [0.025]
Human Resource	-0.632** [0.262]	-0.381** [0.172]	-0.092 [0.058]	-0.193* [0.103]	-0.145*** [0.044]	-0.579*** [0.085]	-0.129 [0.084]	-0.004 [0.038]
Institutional Quality	1.218** [0.500]	1.405*** [0.360]	0.395*** [0.083]	-0.547*** [0.189]	0.721*** [0.101]	0.621*** [0.147]	0.376** [0.175]	0.264*** [0.075]
Constant	9.090*** [2.299]	6.870*** [1.563]	4.377*** [0.524]	-2.374* [1.255]	-1.591*** [0.445]	7.753*** [0.861]	4.619*** [0.752]	1.459*** [0.399]
Observations	218	218	218	218	218	218	218	218
R-squared	0.510	0.398	0.793	0.618	0.700	0.782	0.425	0.904

OLS Estimations. Robust standard errors in brackets. ***, **, and * indicate significance at the 10%, 5% and 1% levels, respectively. All estimations include Yearly Fixed-Effects. We take the logarithmic transformation of all the regressors to mitigate for non-normal distributions and improve the interpretations of the coefficients. We consider the lagged values of value added, unemployment rate, total loans to the non-financial sector and human resources. Population is included at time t since the data refer to the beginning of the period. The same holds for the migration variable.

2. Econometric results (legal status-sector sub-samples).

Sector	Manufacturing	Construction	Service (low)	Service (High)
Legal Status	Self-Employment	Self-Employment	Self-Employment	Self-Employment
Variables				
Migration	0.096*** [0.027]	0.141*** [0.042]	0.249*** [0.047]	0.074*** [0.016]
R-squared	0.661	0.777	0.542	0.905
Legal Status	Partnership	Partnership	Partnership	Partnership
Variables				
Migration	0.009*** [0.002]	0.005* [0.003]	-0.003 [0.008]	0.003 [0.003]
R-squared	0.686	0.749	0.644	0.712
Legal Status	Limited Company	Limited Company	Limited Company	Limited Company
Variables				
Migration	0.014*** [0.005]	0.000 [0.005]	0.013** [0.006]	-0.011 [0.008]
Observations	218	218	218	218
R-squared	0.636	0.242	0.389	0.76

OLS Estimations. Robust standard errors in brackets. ***, **, and * indicate significance at the 10%, 5% and 1% levels, respectively. Each specification controls for the following variables: Lagged Value Added, Population, Lagged Unemployment, Lagged Total Credit, Lagged Human Resource, and Institutional Quality. All estimations include Yearly Fixed-Effects. We take the logarithmic transformation of all the regressors to mitigate for non-normal distributions and improve the interpretations of the coefficients. Population is included at time t since the data refer to the beginning of the period. The same holds for the migration variable.

Table 3. Econometric results with concentration index (full sample; legal status sub-samples; sector sub-samples).

Sample	Full sample	Self-Employment	Partnership	Limited Company	Manufacturing	Construction	Service (Low)	Service (High)
Variables								
Migration	0.666*** [0.150]	0.386*** [0.121]	0.113*** [0.038]	0.212*** [0.059]	0.127*** [0.033]	0.111** [0.048]	0.221*** [0.054]	0.062** [0.025]
Concentration Index (hhi)	0.940*** [0.176]	0.545*** [0.133]	0.081* [0.048]	0.253*** [0.094]	-0.044* [0.026]	0.156*** [0.055]	0.193*** [0.061]	0.015 [0.028]
Observations	218	218	218	218	218	218	218	218
R-Squared	0.574	0.452	0.798	0.638	0.703	0.791	0.451	0.904

OLS Estimations. Robust standard errors in brackets. ***, **, and * indicate significance at the 10%, 5% and 1% levels, respectively. Each specification controls for the following variables: Lagged Value Added, Population, Lagged Unemployment, Lagged Total Credit, Lagged Human Resource, and Institutional Quality. All estimations include Yearly Fixed-Effects. We take the logarithmic transformation of all the regressors to mitigate for non-normal distributions and improve the interpretations of the coefficients. Population is included at time t since the data refer to the beginning of the period. The same holds for the migration variable.

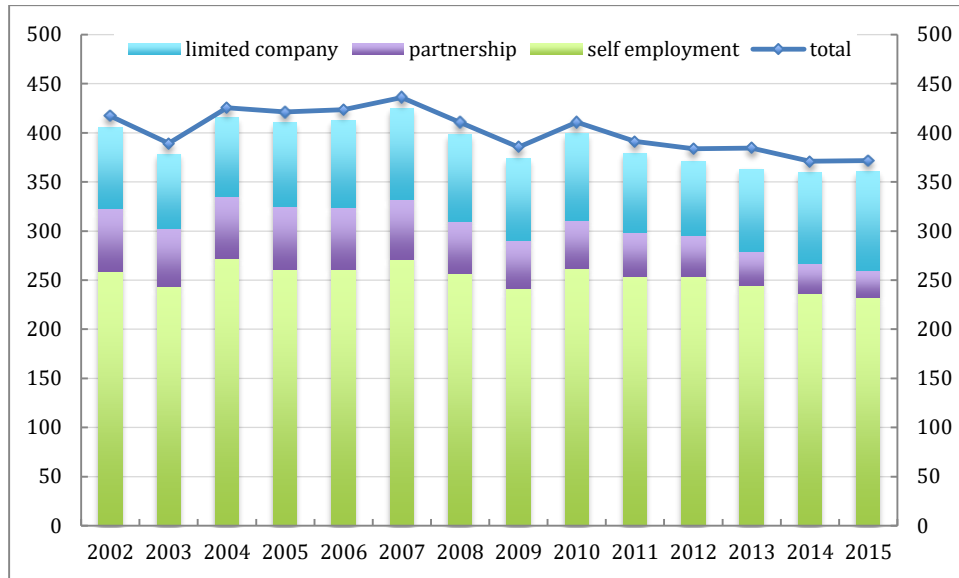
Table 4. Alternative Estimators

<i>Sample</i>	Full Sample	Full Sample	Full Sample	Full Sample	Full Sample	Full Sample
<i>Variables</i>						
Migration	1.602*** [0.373]	0.707*** [0.140]	0.786*** [0.138]	0.829*** [0.141]	0.642*** [0.145]	0.280* [0.163]
Estimator	Fixed Effect	IV-2SLS	IV-2SLS	IV-2SLS	IV-2SLS	IV-2SLS
Instruments		2 year Lagged Migration	1 and 2 year Lagged Migration	Lagged Migration; Lagged New Firms	3 and 4 year Lagged Migration	1991 and 2001 Migrant Stock
First Stage F		3263	3885	4032	1146	315
Observations	218	218	218	218	200	218

Fixed-Effect and IV-2SLS estimations. Robust standard errors in brackets. ***, **, and * indicate significance at the 10%, 5% and 1% levels, respectively. Each specification controls for the following variables: Lagged Value Added, Population, Lagged Unemployment, Lagged Total Credit, Lagged Human Resource, and Institutional Quality. All estimations include Yearly Fixed-Effects. We take the logarithmic transformation of all the regressors to mitigate for non-normal distributions and improve the interpretations of the coefficients. Population is included at time t since the data refer to the beginning of the period. The same holds for the migration variable.

APPENDIX A – Descriptive Statistics

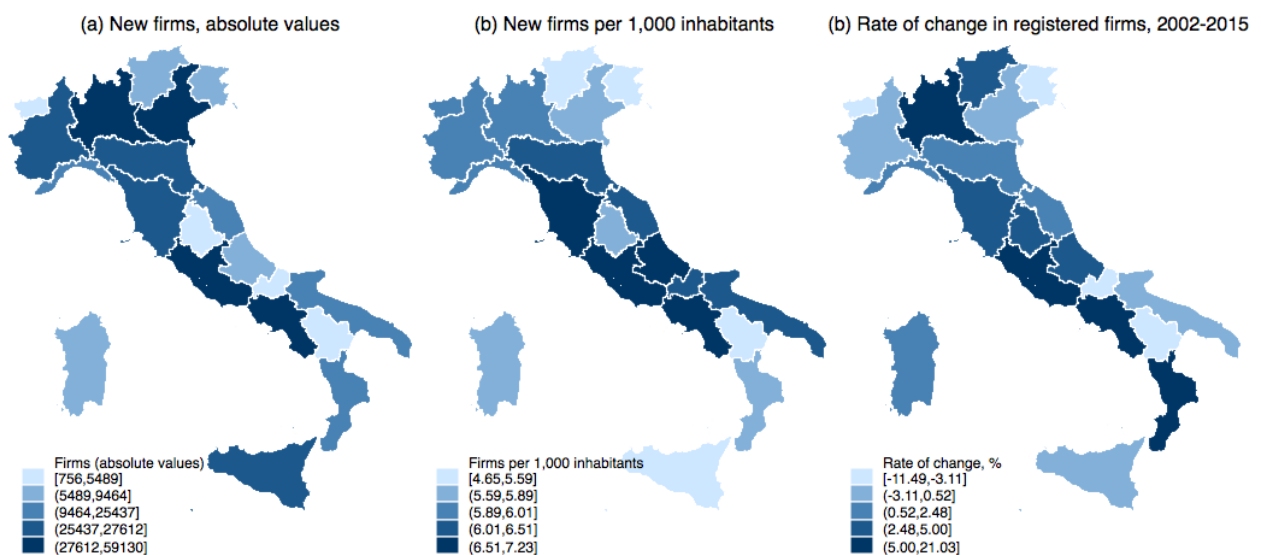
Figure 1A: Firms' entries in Italy by legal status, 2002-2015



Source: own elaboration based on Infocamere (Movimprese) data.

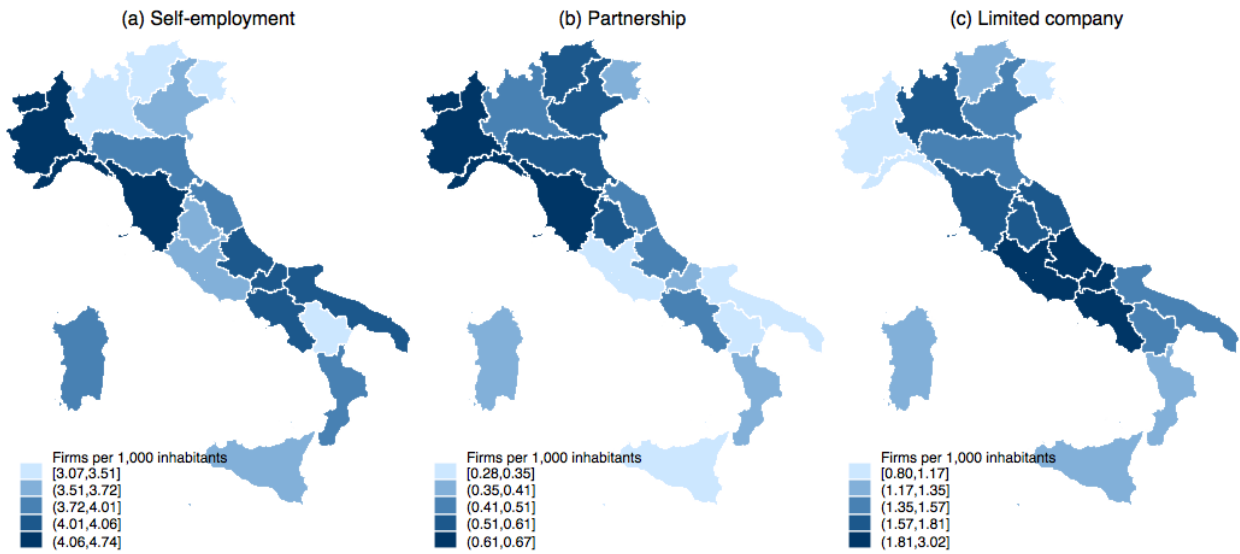
The geographical distribution of firm entries reveals to be highly heterogeneous across regions, as displayed in Figure 2A: Panel a shows the distribution in absolute terms, Panel b reports the regional distribution of new entries per 1,000 inhabitants, while Panel c describes the variation in the number of firms registered between 2002 and 2005. Regional differences also emerge if we break down total firm creation into type of business entity (Figure 3A). While self-employment and partnerships are more widespread in the north-west, the entry rate for limited companies is higher in central Italy.

Figure 2A: Firms' entries by region, 2015



Source: calculations based on Infocamere (Movimprese) data.

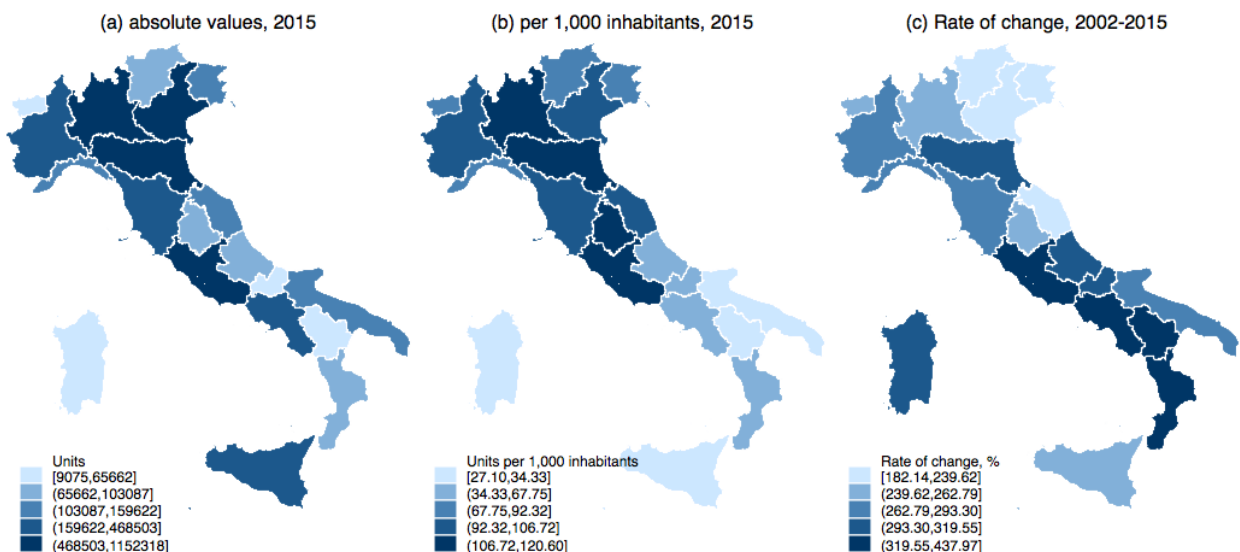
Figure 3A: Firms' entries by region and legal form, 2015



Source: calculations based on Infocamere (Movimprese) data.

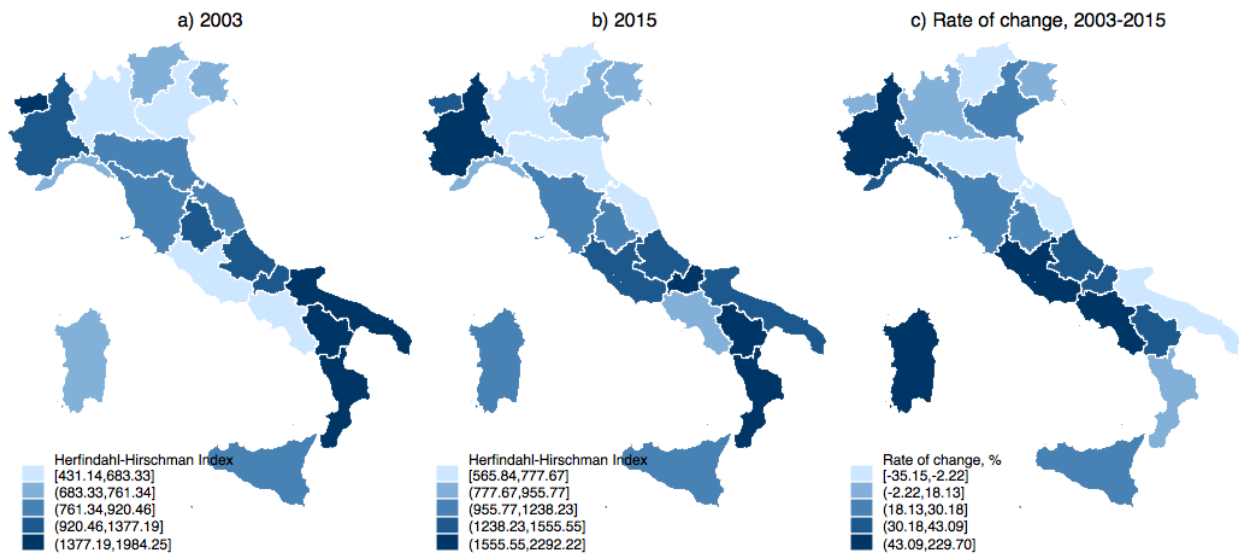
Figures 4A and 5A illustrate the regional distribution of migrants. In Lombardy and Lazio migrants make up more than 10% of the total population, but are mainly concentrated in Milan and Rome. The municipality of Rome alone accounts for 57% of the foreign residents in Lazio. Emilia-Romagna and Umbria also attract large numbers of migrants due to their large productive sectors and relatively high concentration of industrial districts (Mingione, 2009). Despite the long recession, which severely hit the manufacturing sector, these regions still pull migrants in due to family reunification processes and the influence of networks in determining the geographical concentration of migrants (Massey et al., 1993; Portes, 1995).

Figure 4A: Foreign population across Italian regions, 2015



Source: calculations based on ISTAT data.

Figure 5A: Concentration of immigrant across italian regions, 2003-2015



Source: calculations based on ISTAT data.

Table 1A. Low-skilled and high-skilled services sectoral composition

	Nace sectors
Low-skilled services	Wholesale and retail trade; repair of motor vehicles and motorcycles; Transporting and storage; Accommodation and food service activities; Other services activities; Activities of households as employers; undifferentiated goods – and services – producing household activities for own use
High-skilled services	Information and communication; Financial and insurance activities; Real estate activities; Professional, scientific and technical activities; Administrative and support service activities; Public administration and defence; compulsory social security; Education; Human health and social work activities; Arts, entertainment and recreation; Activities of extraterritorial organizations and bodies

Table 2A. Variable descriptions and descriptive statistics

Variable Name	Variable Description	Obs	Mean	St. Dev.	Min	Max	Source
New firms	Number of new firms divided by thousand population legal status: All; Sector: All	260	6.73	0.89	4.65	8.94	Infocamere (Movimprese)
New firms (Self Employment)	Number of new firms divided by thousand population legal status: Self Employment; Sector: All	260	4.34	0.56	3.07	5.83	Infocamere (Movimprese)
New firms (Partnership)	Number of new firms divided by thousand population legal status: Partnership; Sector: All	260	0.89	0.33	0.28	1.79	Infocamere (Movimprese)
New firms (Limited company)	Number of new firms divided by thousand population legal status: Limited company; Sector: All	260	1.31	0.42	0.68	3.02	Infocamere (Movimprese)
New firms (Manufacture)	Number of new firms divided by thousand population legal status: All; Sector: Manufacture	260	0.41	0.20	0.12	1.03	Infocamere (Movimprese)
New firms (Construction)	Number of new firms divided by thousand population legal status: All; Sector: Construction	260	0.93	0.39	0.29	2.13	Infocamere (Movimprese)
New firms (Service Low Skilled)	Number of new firms divided by thousand population legal status: All; Sector: Service Low Skilled)	260	1.85	0.28	1.11	2.74	Infocamere (Movimprese)
New firms (Service High Skilled)	Number of new firms divided by thousand population legal status: All; Sector: Service High Skilled	260	0.40	0.29	0.04	1.07	Infocamere (Movimprese)
Migration	Foreign resident population at the 1st of January	260	169255.9 0	211480.1 0	2500	1152318	Istat
Concentration Index (hhi)	Herfindahl-Hirschman index of migration concentration (calculated respect to forein born population country of origin)	260	1042.43	376.35	431.14	2292.22	Istat
Value Added	Regional yearly value added per capita (Euro 2000)	260	72167.70	70084.83	3853.98	317393.9 0	Istat
Population	Total resident population at the 1st of January	260	2938009	2357228	119353	1.00E+07	Istat
Unemployment	Unemployment rate (15-64 years)	260	9.15	4.97	2.54	23.42	Istat
Total Credit	Total credit to the private sector	240	8.09E+07	1.08E+08	2228642	4.97E+08	Bank of Italy
Human Resource	Persons with tertiary education (ISCED) and/or employed in science and technology (Percentage of total population)	254	20.78	6.52	11.70	48.70	Eurostat
Institutional Quality	Institutional quaity index; see Nifo and Vecchione (2014) for a detailed description	280	0.54	0.21	0.10	0.85	Nifo and Vecchione (2014)

Table 3A: Correlation Matrix.

	Value Added	Population	Unemployment	Total Credit	Migration	Human Resource	Institutional Quality	Concentration Index
Value Added	1							
Population	0.9711	1						
Unemployment	-0.0787	0.1313	1					
Total Credit	0.9758	0.9217	-0.1428	1				
Migration	0.9019	0.8387	-0.2036	0.9686	1			
Human Resource	0.1442	-0.0304	-0.6162	0.2776	0.3736	1		
Institutional Quality	0.24	0.0399	-0.7887	0.3518	0.4209	0.6005	1	
Concentration Index	-0.4657	-0.3601	0.4558	-0.4715	-0.4197	-0.3984	-0.3774	1

APPENDIX B – Alternative estimations

Table 1B. Econometric results with concentration index (legal status-sector sub-samples).

Sector	Manufacture	Construction	Service (low)	Service (High)
Legal Status	Self-Employment	Self-Employment	Self-Employment	Self-Employment
Variables				
Migration	0.101*** [0.028]	0.112** [0.044]	0.210*** [0.048]	0.062*** [0.017]
Concentration Index (hhi)	-0.027 [0.022]	0.147*** [0.051]	0.200*** [0.056]	0.061*** [0.020]
R-squared	0.663	0.785	0.571	0.911
Legal Status	Partnership	Partnership	Partnership	Partnership
Variables				
Migration	0.009*** [0.002]	0.004 [0.003]	-0.003 [0.008]	0.005* [0.003]
Concentration Index (hhi)	0.002 [0.003]	0.007** [0.003]	0.002 [0.009]	-0.011** [0.004]
R-squared	0.686	0.754	0.644	0.725
Legal Status	Limited Company	Limited Company	Limited Company	Limited Company
Variables				
Migration	0.018*** [0.005]	-0.000 [0.005]	0.015** [0.007]	-0.004 [0.007]
Concentration Index (hhi)	-0.019*** [0.004]	0.001 [0.006]	-0.009 [0.009]	-0.034*** [0.008]
Observations	218	218	218	218
R-squared	0.661	0.242	0.391	0.776

OLS Estimations. Robust standard errors in brackets. ***, **, and * indicate significance at the 10%, 5% and 1% levels, respectively. All estimations include Yearly Fixed-Effects. We take the logarithmic transformation of all the regressors to mitigate for non-normal distributions and improve the interpretations of the coefficients. We consider the lagged values of value added, unemployment rate, total loans to the non-financial sector and human resources. Population is included at time t since the data refer to the beginning of the period. The same holds for the migration variable.

Table 2B. Dependent Variables standardized to the number of firms previously in existence.

Sample	Full sample	Self-Employment	Partnership	Limited Company	Manufacture	Construction	Service (Low)	Service (High)
Variables								
Migration	0.007*** [0.001]	0.011*** [0.001]	-0.003** [0.001]	0.000 [0.002]	0.004** [0.002]	0.007*** [0.002]	0.002 [0.001]	-0.010* [0.006]
R-squared	0.603	0.719	0.833	0.722	0.612	0.822	0.63	0.947
Variables								
Migration	0.006*** [0.001]	0.010*** [0.002]	-0.004*** [0.001]	-0.002 [0.002]	0.004*** [0.002]	0.006** [0.002]	0.001 [0.001]	-0.009 [0.006]
Concentration Index (hhi)	0.005*** [0.001]	0.002 [0.002]	0.005*** [0.002]	0.010*** [0.002]	-0.001 [0.002]	0.006** [0.003]	0.004*** [0.001]	-0.006 [0.006]
Observations	218	218	218	218	218	218	218	218
R-squared	0.635	0.721	0.844	0.757	0.613	0.827	0.649	0.947

OLS Estimations. Robust standard errors in brackets. ***, **, and * indicate significance at the 10%, 5% and 1% levels, respectively. Each specification controls for the following variables: Lagged Value Added, Population, Lagged Unemployment, Lagged Total Credit, Lagged Human Resource, and Institutional Quality. All estimations include Yearly Fixed-Effects.

Table 3B. Robustness checks. (Excluding multicollinear controls. Full sample; legal status sub-samples; sector sub-samples).

Sample	Full sample	Self-Employment	Partnership	Limited Company	Manufacture	Construction	Service (Low)	Service (High)
Variables								
Migration	0.196*** [0.035]	0.059** [0.023]	-0.005 [0.008]	0.141*** [0.022]	0.044*** [0.007]	0.022* [0.011]	0.059*** [0.011]	0.040*** [0.007]
Observations	218	218	218	218	218	218	218	218
VIF Migration	1.162	1.162	1.162	1.162	1.162	1.162	1.162	1.162
R-squared	0.378	0.285	0.740	0.288	0.523	0.703	0.330	0.844

OLS Estimations. Robust standard errors in brackets. ***, **, and * indicate significance at the 10%, 5% and 1% levels, respectively. Each specification controls for Lagged Unemployment, Lagged Human Resource and Yearly Fixed-Effects.

Table 4B. Robustness checks. (Excluding multicollinear controls. Legal status-sector sub-samples).

Sector	Manufacture	Construction	Service (Low)	Service (High)
Legal Status	Self-Employment	Self-Employment	Self-Employment	Self-Employment
Variables				
Migration	0.033*** [0.006]	0.022** [0.011]	0.050*** [0.010]	0.025*** [0.005]
Observations	218	218	218	218
VIF Migration	1.162	1.162	1.162	1.162
R-squared	0.484	0.692	0.471	0.828
Legal Status	Partnership	Partnership	Partnership	Partnership
Variables				
Migration	0.002*** [0.001]	-0.001 [0.001]	-0.002 [0.002]	0.003*** [0.001]
Observations	218	218	218	218
VIF Migration	1.162	1.162	1.162	1.162
R-squared	0.613	0.707	0.573	0.619
Legal Status	Limited Company	Limited Company	Limited Company	Limited Company
Variables				
Migration	0.009*** [0.001]	0.001 [0.001]	0.011*** [0.002]	0.012*** [0.002]
Observations	218	218	218	218
VIF Migration	1.162	1.162	1.162	1.162
R-squared	0.509	0.199	0.366	0.724

OLS Estimations. Robust standard errors in brackets. ***, **, and * indicate significance at the 10%, 5% and 1% levels, respectively. Each specification controls for Lagged Unemployment, Lagged Human Resource and Yearly Fixed-Effects.

Table 5B. Robustness checks. (Excluding multicollinear controls. Full sample; legal status sub-samples; sector sub-samples).

Sample	Full sample	Self-Employment	Partnership	Limited Company	Manufacture	Construction	Service (Low)	Service (High)
Variables								
Migration	0.307*** [0.037]	0.126*** [0.025]	0.011 [0.009]	0.164*** [0.029]	0.044*** [0.008]	0.048*** [0.012]	0.086*** [0.010]	0.047*** [0.008]
Concentration Index (hhi)	1.139*** [0.182]	0.693*** [0.123]	0.156*** [0.046]	0.240* [0.136]	0.000 [0.030]	0.265*** [0.052]	0.277*** [0.054]	0.071** [0.036]
Observations	218	218	218	218	218	218	218	218
VIF Migration	1.433	1.433	1.433	1.433	1.433	1.433	1.433	1.433
VIF Concentration Index (hhi)	1.864	1.864	1.864	1.864	1.864	1.864	1.864	1.864
R-squared	0.486	0.386	0.758	0.309	0.523	0.732	0.393	0.848

OLS Estimations. Robust standard errors in brackets. ***, **, and * indicate significance at the 10%, 5% and 1% levels, respectively. Each specification controls for Lagged Unemployment, Lagged Human Resource and Yearly Fixed-Effects.

Table 6B. Robustness checks. (Excluding multicollinear controls. Legal status-sector sub-samples).

Sector	Manufacture	Construction	Service (low)	Service (High)
Legal Status	Self-Employment	Self-Employment	Self-Employment	Self-Employment
Variables				
Migration	0.034*** [0.007]	0.046*** [0.011]	0.076*** [0.009]	0.035*** [0.006]
Concentration Index (hhi)	0.012 [0.026]	0.252*** [0.049]	0.264*** [0.050]	0.099*** [0.027]
Observations	218	218	218	218
VIF Migration	1.433	1.433	1.433	1.433
VIF Concentration Index (hhi)	1.864	1.864	1.864	1.864
R-squared	0.484	0.722	0.531	0.843
Legal Status	Partnership	Partnership	Partnership	Partnership
Variables				
Migration	0.003*** [0.001]	0.000 [0.001]	0.000 [0.002]	0.003** [0.001]
Concentration Index (hhi)	0.004 [0.003]	0.009*** [0.003]	0.015 [0.009]	-0.004 [0.006]
Observations	218	218	218	218
VIF Migration	1.433	1.433	1.433	1.433
VIF Concentration Index (hhi)	1.864	1.864	1.864	1.864
R-squared	0.616	0.718	0.577	0.620
Legal Status	Limited Company	Limited Company	Limited Company	Limited Company
Variables				
Migration	0.007*** [0.001]	0.001 [0.001]	0.010*** [0.002]	0.009*** [0.002]
Concentration Index (hhi)	-0.016*** [0.005]	0.002 [0.005]	-0.005 [0.008]	-0.028*** [0.009]
Observations	218	218	218	218
VIF Migration	1.433	1.433	1.433	1.433
VIF Concentration Index (hhi)	1.864	1.864	1.864	1.864
R-squared	0.529	0.199	0.367	0.736

OLS Estimations. Robust standard errors in brackets. ***, **, and * indicate significance at the 10%, 5% and 1% levels, respectively. Each specification controls for Lagged Unemployment, Lagged Human Resource and Yearly Fixed-Effects.