Immigrants' Transition to Entrepreneurship: the impact of countries of origin and experience in the host country

Abstract

We study the transitions from salaried work to entrepreneurship among immigrants and natives. We find that immigrants are less likely than natives to leave salaried work to engage in entrepreneurship. Our results suggest that immigrants have a higher opportunity cost of leaving salaried work when compared to natives. Our findings reveal that immigrants' countries of origin affect their entrepreneurial behavior. On the one hand, those from countries that are more dissimilar to the host country have higher probabilities of switching from salaried work to entrepreneurship. On the other hand, individuals from less developed countries are more likely to switch to entrepreneurship the wealthier their country of origin is, while for those from countries more developed than the host country the opposite happens.

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1. Introduction

The number of individuals engaged in entrepreneurship has been rising in most developed countries (OECD, 2011), with a non negligible proportion of those being not natives from the country where they live. This is due to two reasons: a fair proportion of population in most developed countries was born in a country that is different from the one of residence and foreign born individuals are somewhat more likely to engage in entrepreneurship than natives (OECD, 2010). Furthermore, both figures have been rising over time. The share of foreign-born individuals in the OECD increased from 13.1% to 15.2% between 2001 and 2008; the share of self-employed rose from 11.3% to 12.6% for foreign-born individuals, while rose from 11.6% to 12% for natives (OECD Migration Databases).

People engage in entrepreneurship because they expect this choice to be better than the alternatives. Immigrants are known to have fewer opportunities as wage employees (OECD, 2014) and a high incidence of entrepreneurship is often seen as a way to avoid labor market exclusion or discrimination (Clark & Drinkwater, 1998). However, discrimination against immigrants may also affect their entrepreneurial ventures (Watson & Wright, 2000; Kaynak & Kara, 2002; Mayda, 2006) if customers, suppliers or employees have a preference for not dealing with immigrants. Thus, if immigrants engage in entrepreneurship it is because this choice may allow them to explore advantages not exploitable in wage employment. For instance, embeddedness in local culture may prevent locals to identify opportunities that immigrants are able to spot. This ability is likely to be more valuable in entrepreneurship than in wage employment, as in wage employment different ways of doing things are more likely to encounter resistance from hierarchies than in entrepreneurship where the entrepreneur has a larger saying with respect to what to do and how to do it.

To the extent that the ability to spot unidentified opportunities is constrained by embeddedness in local culture, the origin of the immigrant is likely to make a difference. The origin of immigrants has been found to exert a considerable impact upon self-employment rates and upon earnings (Borjas & Bonars, 1989; Borjas, 1987; Borjas, 1986; Yuengert, 1995; Fairlie & Meyer, 1996), but the few studies that examined the relationship between results between individuals' institutional background and entrepreneurship have not reached consensual findings (Mueller & Thomas, 2001; Vinogradov & Kolvereid, 2007; Wildeman et al., 1990).

We study immigrants' decision to go into entrepreneurship. We focus on immigrants that held a paid job and that subsequently created businesses that employed paid labor. We therefore avoid two conditions that may be indicative of marginal circumstances. First, all our immigrants were employed before creating their business. We thus avoid those that may have been pushed into entrepreneurship for absolute inability to find a paid job. Second, all new businesses that we consider employ paid labor. We thus also avoid those ventures that employ only the entrepreneur and which are also more likely to be marginal occupations.

We compare the whole population of immigrants that have paid jobs with their native counterparts and study their decision to switch to entrepreneurship. We find that immigrants are less likely than natives to switch into entrepreneurship, and that their decision is more sensitive to wages, tenure and schooling. Because natives and immigrants have very different characteristics, we do the same comparison using matched samples of natives and immigrants and our results hold.

Furthermore, we compare immigrants of different origins to evaluate the impact of cultural, political and economic similarity upon the decision to switch to entrepreneurship. We use data on immigrants from over 60 nationalities to find that those that come from countries that are more similar in terms of cultural and political institutions are more likely to switch into entrepreneurship. In contrast, similarities in the levels of GDP per capita of the country of origin increase the chances of going into entrepreneurship.

The paper is organized as follows. In Section 2 we review the literature and develop our hypothesis. Section 3 presents the empirical model and the data that we will use in the empirical estimation. In Section 4 we discuss our results. Lastly, we provide concluding remarks in Section 5.

2. Literature and Hypotheses

The literature on the transition into entrepreneurship typically considers that individuals choose between salaried work and entrepreneurship by comparing the gains (pecuniary or non-pecuniary) they expect to obtain in each alternative. Individuals choose to switch to entrepreneurship if the expected gains from this alternative exceed those of salaried work (Carrasco, 1999; Rees & Shah, 1986; deWit & Winden, 1989). The gains individuals may obtain in salaried work and in

entrepreneurship may be influenced by several factors and the probability of transition into entrepreneurship will depend on the relative impact of such factors in the gains of both alternatives. For instance, higher probabilities of transition to entrepreneurship are found among middle-aged males who have higher levels of educations and greater wealth (Carrasco, 1999; Evans & Leighton, 1989; Lin et al., 2000).

Results by Fairlie (2006) reveal that immigrants are more likely than natives to enter self-employment. However, in this study there is no distinction between entry in entrepreneurship from wage employment and from unemployment. Thus, it is not possible to assess if individuals switching from wage employment to self-employment behave like those resorting to self-employment to escape unemployment. Blume et al. (2009) provide some evidence on this matter. The authors investigate differences between natives and immigrants concerning their transition patterns across several labor market states. The authors focus on immigrant marginalization and find that immigrants are more likely than natives to use self-employment as an escape from unemployment. This suggests that immigrants may, at least to some extent, be marginalized in wage employment. The authors also find evidence suggesting that the barriers found by immigrants in wage employment may arise from discrimination or time variant unobserved characteristics. These studies suggest that the gains obtained by natives and immigrants in salaried work and in entrepreneurship may respond differently to the same set of factors and thus that natives and immigrants may exhibit different transition patterns from salaried work to entrepreneurship.

Immigrants confront obstacles to integration in the host country and are in a disadvantageous position relative to natives. These disadvantages have been mostly acknowledged with respect to wage work, but they can also be harm immigrants willing to engage in entrepreneurship.

The first source of such obstacles is lack of knowledge about the host country, as knowledge and experience acquired outside the host country may not be entirely appropriate there. Lack of knowledge about laws, rules or work ethics in the host country may create difficulties for immigrants to find jobs (Frijters et al., 2005; Battu et al., 2011). It can also lead immigrants to perform less well in the jobs that they get, leading to a wage penalty relative to natives (Chiswick, 1978; Reimers, 1983; Friedberg, 2000). Lack of knowledge about the legal norms prevailing in the host country may even be more serious if immigrants want to engage in the creation and operation of a business venture. They may also be unfamiliar with the preferences of

consumers in local markets, which may pose an obstacle, as consumers will be reluctant to buy products that are poorly adequate to their preferences (Balabanis et al., 2001; Kaynak & Kara, 2002).

Another source of obstacles confronted by immigrants is discrimination (Mayda, 2006). Discrimination may exist in different contexts. First, discrimination may prevent immigrants from finding jobs. When resumes containing randomized white and African-American sounding names were sent to newspaper employment ads, white names received 50% more callbacks for interviews than African-American names (Bertrand & Mullainathan, 2004). Second, foreign employees of multinational corporations who work in the corporation's home country have been found to be stereotyped and stigmatized by native employees (Harvey et al., 2005), and salary increases of foreigners have been found to be lower than those of natives in the same firm (Mezias & Mezias, 2007). Discrimination can also occur when immigrants engage in entrepreneurship. Immigrant businesses may be discriminated against by local consumers (Nardinelli & Simon, 1990) who perceive products supplied by foreigners as worse than those provided by natives (Watson & Wright, 2000). Likewise, immigrant entrepreneurs may be discriminated against in capital markets (Bell et al., 2012) as investors are often biased towards local firms (French & Poterba, 1991), which may aggravate the liquidity constraints of immigrant entrepreneurs.

The disadvantages confronted by immigrants in salaried work, such as a wage gap relative to natives can motivate them to switch from wage employment into entrepreneurship, as the perception of unfair wages and discrimination contributes to higher entrepreneurial intentions (Werner et al., 2014; Constant & Zimmermann, 2006). However, it is well known that the prospects in entrepreneurship are highly uncertain and a high proportion of those founding a firm exit soon after having created their ventures (Townsend et al., 2010). As immigrants confront greater hurdles in finding a new job, the value of holding one's current job is likely higher for immigrants than it is for natives. Thus, immigrants holding a job may be more reluctant about leaving that job than natives in a similar situation, and our first hypothesis is as follows.

Hypothesis 1: Employed immigrants are less likely than employed natives to switch from wage employment to entrepreneurship.

Characteristics of the job held are likely to be critical for the decision to switch into entrepreneurship. First and foremost, the wage received in a paid job is a major determinant of the decision to start one's business. The foregone wage is the opportunity cost of entrepreneurship. Employees that earn higher wages are less likely to sacrifice that salary for the prospects of entrepreneurial gains (Evans & Jovanovic, 1989).

For immigrants, the impact of wages can be greater than for natives. Given the greater difficulty of immigrants in getting jobs, a high pay job is worth more for an immigrant than for a native, which can more easily find a similar job if things do not go well in the entrepreneurial venture. In addition, immigrants in jobs yielding higher wages are more likely to perceive them as fair, which also reduces their incentives to leave salaried work to engage in entrepreneurship (Werner et al., 2014). Therefore, our following hypothesis is as follows.

Hypothesis 2: Individuals with higher wages are less likely to transition to entrepreneurship and this impact is stronger for immigrants than for natives.

A similar effect may apply to tenure in the current job. A long tenure in one firm is an indication that a good match between employee and employer has been found. Evans and Leighton (1989) find that tenure has a U-shaped effect upon transitions to self-employment. The authors find that for tenures up to 35 to 73 years the relationship between tenure and transitions to self-employment is negative, thus suggesting that individuals with longer job tenures have lower probabilities of transition to entrepreneurship.

Tenure is likely to be particularly valuable for immigrants, given the aforementioned greater difficulty of immigrants in finding a suitable job. If the current job is a particularly good match, it is less likely that the immigrant is willing to take chances. Tenure is also likely to exert a greater impact upon transition of immigrants than of natives, as employers may be unfamiliar with the education systems of immigrants' home countries. This unfamiliarity may casts doubts concerning immigrants' suitability for the jobs and thus longer tenures may enable employers to learn about the skills of immigrant employees (Chiswick & Miller, 2010; Mahmud et al., 2014). Therefore, our following hypothesis is stated as follows.

Hypothesis 3: Individuals with higher tenure in their current job are less likely to switch to entrepreneurship and this impact is stronger for immigrants than for natives.

Irrespective of the firm in which experience is gained, general experience in the labor market allows individuals to accumulate skills and resources that are useful both in wage work and for starting a business. In the case of immigrants, such an experience also provides opportunities to learn about the host country and reduce their disadvantages relative to natives. In wage work, such learning may lead to a better command of the job search methods that are appropriate in the host country (Nee et al., 1994; Fang et al., 2013), and lead to a significant reduction of the wage gap immigrants have relative to natives. Chiswick (1978) reports that after 10 to 15 years the wages of foreign-born men equal or even exceed those of native-born men in the United States.

Over their stay, immigrants can also learn about local markets and consumers' tastes and develop skills that enable them to adequate their offers to markets of the host country. In addition, they can accumulate financial resources for starting a business. Consistent with this argument, results by Blume et al. (2009) suggest that immigrants with greater labor market experience are more likely to switch from wage employment to self-employment while in the case of natives the opposite happens.

These effects of labor market experience upon the accumulation of skills, knowledge and capital are also likely to hold for natives. They may need some labor market experience to achieve a set of competences allowing them to engage in entrepreneurship (Lin et al., 2000). However, natives are familiar with the host country and thus unlikely to be excluded from entrepreneurship due to unfamiliarity or discrimination. Labor market experience has the additional value of providing the necessary knowledge to engage in entrepreneurship to immigrants who were previously excluded from entrepreneurship because of unfamiliarity and discrimination. Thus, we expect a greater impact of labor market experience upon transitions to entrepreneurship in the case of immigrants than in the case of natives, and we hypothesize that:

Hypothesis 4: Labor market experience in the host country increases the likelihood of transition to entrepreneurship and this impact is stronger for immigrants than for natives.

Transitions patterns from salaried work to entrepreneurship do not have to be the same for all immigrants. Results by Fairlie and Meyer (1996) reveal that, among the studied groups, immigrants from Asia are those with highest probabilities of transition. Blacks, Latinos, and Native Americans are found to be less likely to switch to entrepreneurship than whites. Self-employment rates per se also vary considerable between immigrant groups (Borjas, 1986; Yuengert, 1995; Clark & Drinkwater, 1998; OECD, 2010). Fairlie (1999) finds that African American men are less likely than natives to be self-employed. These differences may occur even among groups of similar origins. Fernandez and Kim (1998) find that Koreans have the highest self-employment rates among Koreans, Chinese, Asian Indians and Vietnamese. Moreover, while there are proportionally more Korean college-graduates engaged in self-employment, among other Asian groups college graduates show the lowest self-employment rates.

While individuals' characteristics may explain some differences within and between groups, substantial differences persist even after controlling for some of these characteristics (Hammarstedt, 2004). Individuals' entrepreneurial behavior can be influenced by their attitudes and behaviors as well, which in turn are greatly affected by the institutional background of their countries of origin (Meek et al., 2010; Tiessen, 1997). In a study across nine countries, Mueller and Thomas (2001) found that individualistic cultures with low uncertainty avoidance are more conductive to entrepreneurship. In Norway, Vinogradov and Kolvereid (2007) found that individuals from countries with low power distance are more likely to become self-employed. In a broader study comprising 23 OECD countries, Wildeman et al. (1990) found that countries with high power distance and high uncertainty avoidance have more self-employed individuals.

Differences between home and host countries can influence the entrepreneurial behavior of immigrants through the interaction between immigrants' institutional background and the institutional profile of the host country. On the one side, the institutional profile of a country influences the attitudes of foreigners concerning that country (Makino et al., 2004; Meyer et al., 2009). Factors such as

corruption or policy uncertainty influence firms' entry choices (Rodriguez et al., 2005; Andrew & Witold, 2003). On the other side, agents' institutional background influences the behavior of foreigners in the host country. For example, Cuervo-Cazurra (2006) find that investors exposed to corruption tend to seek countries where corruption is prevalent rather than countries trying to avoid corruption.

Differences between home and host countries can exacerbate the obstacles immigrants face in the host country as these differences may increase the difficulty of immigrants to understand and adapt to the local environment (Orr & Scott, 2008) and the difficulty of locals to understand immigrants. Consequently, immigrants from dissimilar countries are more unfamiliar with the local environment than those from similar countries and thus more susceptible to experience discriminatory treatments, as they are more likely to be perceived by natives as less legitimate (Kostova & Zaheer, 1999).

However, foreignness and differences between home and host countries may provide advantages and benefits to immigrants. Exposure to multicultural experiences may increase creativity (Leung et al., 2008) and thus immigrants can be a source of creative ideas and innovations that are outside the usual parameters of the host country's society (Shi & Hoskisson, 2012). Immigrants can be able to differentiate themselves from locals and thus reduce competition (Deephouse, 1999). For example, immigrants may have comparative advantages in serving specific markets, such as those related with their countries of origin (Zhou, 2004; Drori et al., 2009). This may Immigrants may be attracted to entrepreneurship in order to exploit these advantages. Immigrants' lack of embeddedness in the host country can also work in their favor. Immigrants are detached from prevailing norms and attitudes within the host country. Thus they are able to identify and exploit opportunities missed by natives, by deviating from standard practices adopted in the host country. For example, Siegel et al. (2011) find that American firms are able to take advantage of discrimination against women in South Korea by hiring a higher share of female managers compared to local firms. This would be unlikely if both countries had similar practices, as American firms would see discrimination against women as standard procedure. These advantages and benefits are likely to be greater for immigrants that have a more different mindset from natives. Thus immigrants from countries dissimilar to the host country may be in a better position to exploit these comparative advantages.

The overall impact of differences between home and host countries upon transitions to entrepreneurship is not clear beforehand. Nevertheless, the advantages immigrants from dissimilar countries may have over those from similar countries are likely to be more valuable in entrepreneurship than in salaried work. Entrepreneurs are frequently characterized as individuals who think differently (Baron, 1998; Mitchell et al., 2007). Thus, from the perspective of local actors immigrants from dissimilar countries are more likely to think differently than those from similar countries. This outside of the box thinking may provide them with the type of advantages we discussed earlier, namely concerning opportunity identification and differentiation from competitors. By contrast, employees as often demanded to comply with organizational norms, as organizational deviance (behavior that violates the norms of an organization) is found to have costs for organizations (Dunlop & Lee, 2004). Employees are also required to interact with coworkers, in particular native coworkers. Such compliance and interaction is likely to be smoother for immigrants from countries similar to the host country. For example, Jian (2012) found that a greater adjustment to host country culture is likely to result into better relationships with coworkers while Bisin et al. (2011) found that immigrants with strong ethnic identities may have a lower probability of being employed. In addition, local actors, namely employers, have imperfect information concerning immigrants' abilities or qualifications and these may not be fully transferable to wage employment in the host country (Donohue, 2005).

As dissimilarities between home and host country may increase the obstacles immigrants face in salaried work and entrepreneurship but provide immigrants valuable entrepreneurial advantages we hypothesize that

Hypothesis 5: Immigrants from countries dissimilar to the host country are more likely to switch from wage employment to entrepreneurship than those from similar countries.

3. Data and Estimation

3.1 – Empirical Model

We follow a comparative advantage framework to study what makes an individual leave paid employment to become an entrepreneur (Rees & Shah, 1986;

Constant & Zimmermann, 2006;Carrasco, 1999). Individuals choose between salaried work and entrepreneurship by comparing the gains (pecuniary or non-pecuniary) they expect to obtain in each case (Borjas, 1986). Individuals switch to entrepreneurship if the expected gains of this option exceed those of paid employment.

We do not observe individuals' expected gains, only if an individual switches to entrepreneurship, at a given period. Let $w_i$and $e_i$denote individual *i* expected wage and expected gains from entrepreneurship, respectively. We define

$$E_i^* = e_i - w_i = \beta X_i + \gamma D_i + v_i i = 1, 2, \dots, I \quad (1)$$

whereX_i is a vector of observable individual characteristics,D_i contains variables characterizing differences between individuals' home and host countries and $v_i$is an error term. The probability that a paid worker in period *t-1* becomes an entrepreneur in period *t* is given by

$$\Pr\left(E_{i,t}^* \geq 0 \middle| X_{i,t-1}, D_i\right) = F\left(\beta X_{i,t-1} + \gamma D_i\right) \quad (2)$$

where *F* is specified as the standard normal cumulative distribution function.

We use a probit model to estimate the probability of transition to entrepreneurship. We consider individuals' characteristics in the period before they switch (or not) to entrepreneurship in order to avoid confusing causes and consequences of transition to entrepreneurship.

3.2 – Sample

Our analysis is based on the whole population of individuals who were paid workers in Portugal from 2002 to 2009. The source of our data is *Quadros de Pessoal*, a dataset that is obtained from a mandatory annual survey conducted by the Portuguese Ministry of Employment and covers all firms employing paid labor in Portugal. The dataset includes information on all the individuals working at each firm including their occupational status, distinguishing between employees and employers (business owners), and their nationality. Its longitudinal nature, with individual identified by a unique number, allows us to follow them over time and also avoid stock sample biases. Although data are available from 1985 to 2009, we start in 2002 because information about nationalities is available only from this year onwards.

Overall, we track over 4.4 million individuals of the whole population working in firms that employ paid labor during the period 2002-2009. Over 26.000 individuals switch from paid employment to entrepreneurship, of which 610 are foreign of over 60 nationalities.

Immigration is a relatively recent phenomenon in Portugal with foreign individuals accounting for around 1% of the population in 1992 and around 4% in the period 2002-2009 (Pordata, 2014). However, the diversity of immigrants' countries of origin has increased in the last decade. The contribution of African Portuguese speaking countries, that were traditional sources of immigration to Portugal, decreased from 45.2% in 2002 to 22.6% in 2012. In contrast, the share of individuals from Ukraine, Moldova, Romania, Bulgaria, Brazil China or India increased considerable from 2002 to 2012. The shares of Ukrainians, Moldovans, Romanians and Bulgarians were negligible in 2002 and increased to 10.6%, 2.8%, 8.4% and 1.8% respectively. Brazilian individuals increased their share from 10.4% in 2002 to 25.3% in 2012. Chinese increased from 1.9% to 4.2% and Indians from 0.6% to 1.4%. Individuals from European Union countries represent more that 20% of the total number of foreigners in the same period (authors' computation with data from the Portuguese Immigration and Borders Service).

3.3 – Variables

Our dependent variable is a binary variable taking the value 1 if an individual that was a worker switches to entrepreneurship and 0 otherwise.

Individual characteristics determining the choice between paid employment and entrepreneurship are as follows.

We consider experience in the labor market of the host country and experience in entrepreneurship separately, as these types of experience have disparate effects upon the probability of switching from wage employment to entrepreneurship. Prior self-employment experience has been found to increase the likelihood of transition to self-employment while the impact of wage employment experience is insignificant upon the same transition (Evans and Leighton (1989). Prior entrepreneurial experience may reflect a specific predisposition of individuals to engage in entrepreneurial activities, but also the acquisition of knowledge about the specific challenges of entrepreneurship (Lin et al., 2000; Carroll & Mosakowski, 1987).

Experience in the host country is measured by the number of years that an individual has been in the host country labor market. Because we have data available starting in 1985 we were able to identify participation in the labor market from that year onwards. In addition, we can account for the experience of a person who is in the files in 1985 but started working in that firm earlier, as our data has information about the date at which each person started working in a firm. Thus, we are able to measure labor market experience with precision up to 17 years, that is, individuals who are in the data in 2002 who already were in the data in 1985. Prior experience in entrepreneurship is accounted for with a dummy variable that is equal to 1 if an individual was previously an entrepreneur since he entered our dataset and zero otherwise.

Tenure in the firm is measured by the number of years that an individual was at that firm. We include hourly wages earned in the period before individuals switch or not to entrepreneurship, because they provide a good benchmark to the future wages they will earn if they remain in paid employment. Hourly wages are measured by total work compensation in 2009 euros divided the number of hours worked. Education is measured by the number of schooling years of each individual. Gender is indicated by a dummy variable taking the value 1 for male individuals and 0 otherwise. A variable with the age of individuals is available in our dataset. We include in our model industry dummies concerning the sector in which individuals were as paid workers before switching (or not) to entrepreneurship, in order to control for possible sector-specific effects in the probability of entrepreneurship (Bates, 1995). Year dummies are also included to control for the macroeconomic environment.

To account for differences between home and host countries we use national culture, political institutions and the level of economic development. Cultural distance is measured using four cultural dimensions: power distance, uncertainty avoidance, individualism, and masculinity (Hofstede, 2001). These culture dimensions have been extensively used in the literature to characterize countries cultural profiles (see Kirkman et al., 2006 for a review). These dimensions are aggregated with the Kogut and Singh Index (Kogut & Singh, 1988), which is defined as follows.

$$CD_j = \sum_{i=1}^{4} \frac{\{(I_{ij} - I_{iP})^2 / V_i\}}{4}$$

whereI_{ij} is the distance score for the ith dimension and jth country, V_i is the variance of the score of ith dimension, P stands for Portugal and CD_j is the national distance between the jth country and Portugal.

Political distance is accounted for with a measure developed by Berry et al., 2010, which combines five indicator variables: policy-making uncertainty (institutional actors with veto power), the size of the state (as a percentage of GDP), a democracy score, whether or not countries are WTO members, and if they belong to the same trading block. Political uncertainty is often associated with countries where governments have low levels of democracy, few institutional constraints, high levels of state ownership, and that often lack credibility (Murtha & Lenway, 1994; Henisz, 2000). In countries that have high levels of political uncertainty policies may change almost arbitrarily. Thus, it is more difficult for foreigners to adapt in countries with high political uncertainty because it is more difficult for them to foresee such changes. Close political ties between countries may support the exchange of information through commercial relationships. Thus, foreigners from countries with commercial relations with the host country may be more familiar with the host country than those from countries without such relations (Brewer, 2007). We consider political distance evaluated at the year immigrants' firms enter the market in the host country.

Economic development is measured by GDP per capita in constant prices of 2000 adjusted for purchasing power parity. Data were collected from the United Nations World Development Indicators Database.

5. Results

5.1 – Differences between foreign and native individuals

Table 1reports sample averages of foreign and native individuals. The age and education of foreigners are similar to those of natives but foreigners have a higher share of male individuals. Foreigners and natives have different levels of experience in the host country, as one would expect. Both labor market experience and entrepreneurial experience of foreigners in Portugal is considerably lower than those of natives. Native individuals have an experience of around 13 years in the labor market while foreigners have only approximately 3 years. Among natives, 2% of individuals have been previously engaged in entrepreneurship while for foreigners

this figure is below 0.5%. Immigrants also reveal lower tenure and slightly lower wages when compared to natives. These differences result, to some extent, from the fact that foreigners have been in the local labor market for a shorter length of time. Individuals switching to entrepreneurship have on average less labor market experience and lower tenures compared to those remaining in wage employment. Those switching to entrepreneurship are also on average younger than those remaining in wage employment, having relatively higher shares of males and individuals who were previously engaged in entrepreneurship.

[Table 1 here]

Figure 1 displays the number of individuals by country of origin and the rates at which they switch to entrepreneurship. We only display the 33countries with positive switching rates and thus Figure 1does not display all nationalities in our sample, as some of them have zero switching rates. Switching rates vary across countries with individuals from some countries revealing rates above those of natives and others below. No obvious pattern emerges from Figure 1. The group of countries with higher switching rates comprises countries like China, Switzerland, Pakistan, Bangladesh, and the United Kingdom. Worth noticing is that Portuguese speaking countries account for a considerable number of workers in our samplebut are among those with the lowest switching rates.

[Figure 1 here]

To select a sample of natives that are similar to immigrants in our sample we matched natives and immigrants that have comparable characteristics in each year. To do this matching we use the whole sample of immigrants and natives in each one of the years 2002 to 2008 and estimate a propensity score matching model (Caliendo & Kopeinig, 2008). We estimate the probability of an individual being immigrant (the propensity score) using as covariates individuals' host country experience, a dummy variable indicating if the individual was previously engaged in entrepreneurship in the host country, tenure in the firm, hourly wages, gender, schooling, age and sectors. For each immigrant we selected the native with the probability that is closest to the one of the foreigner, ensuring that the distance between these probabilities does not exceed a

small value (0.01). A total of 13.623 foreigners (3% of all immigrants in our sample) were excluded because we did not find a native with a probability within the considered distance.

When searching for a native with characteristics similar to the ones of a given immigrant we find several native candidates for the matching, as the total number of natives in the whole sample is larger than the number of immigrants. Thus for a particular immigrant, his native match in one year does not have to be the same native match in a different year. This means that throughout the years each immigrant in our matched sample will appear repeated more times than each native resulting in a smaller number of immigrants relative to natives. Therefore, our matched sample has the same number of immigrants and natives in each year, although the total number of immigrants and natives in the whole matched sample is not the same: 100.269 immigrants and 198.250 natives.

Table 2 reports descriptive statistics for the matched sample. We can see that native and foreign individuals in the matched sample are indeed more similar to each other.

[Table 2 here]

Correlations between the considered independent variables in the matched sample are reported in Table 3. Correlations are reported separately for immigrants and natives. Correlations for political and cultural distances are not reported for the sample of natives as such correlations are not defined because these variables always take the value zero for this sample. Likewise, correlations for GDPpc are not reported for the sample of natives as this variable only varies with time in this sample and does not directly enters our analysis of local entrepreneurs. In most cases correlations are low with exception of the correlation between tenure in the firm and host country experience for both immigrants and natives and the correlation between cultural distance and GDPpc in the sample of immigrants. On the hand, the high correlation between tenure in the firm and host country experience is not surprising. On the other hand, cultural distance and GDPpc are qualitatively distinct as countries may have similar levels of GDPpc while their cultural distance to Portugal may differ greatly and vice versa.

[Table 3 here]

Table 4 shows the education levels of individuals switching to entrepreneurship. We can see that, among those switching to entrepreneurship, foreigners have education levels lower than those of natives. The share of foreigners with schooling between zero and four years is higher than the corresponding share for natives, while for the remaining schooling classes the opposite happens.

[Table 4 here]

Figure 2 displays the share of transitions into entrepreneurship among total individuals in each sector, for immigrants and natives. Transitions into entrepreneurship, exits and entries, occur mainly in the sectors of Construction, Hotels and Restaurants, Wholesale and Retail Trade for both immigrants and natives. We can also see from the figure that transition patterns across sectors are fairly similar between immigrants and natives.

[Figure 2 here]

5.2 – Regression results

The results of our first probit regressions are reported in Table 5. Column (1) and (2) display the results using the unmatched sample and the remaining categories the results obtained with the matched sample. Column (1) includes only a dummy variable that indicates whether an individual is an immigrant or not (aside from a constant). The estimated coefficient being is positive which indicates that, on average and unconditionally, immigrant workers are more likely than natives to leave paid work to engage in entrepreneurship. This is consistent with the observation largely reported in the literature that immigrants show a higher propensity than natives to engage in entrepreneurship than natives. However, this result does not hold after controlling for individual characteristics. Column (2) shows that, after controlling for the characteristics of individuals, immigrants are indeed less likely than natives to switch to entrepreneurship, as the immigrant coefficient is now negative.

The first result is also driven by the fact that the individual characteristics of immigrants and natives are quite different in the unmatched sample. When we run regressions similar to (1) and (2) with our matched sample, the results for the immigrant dummy are negative and significant (columns 3 and 4) thus clearly indicating that immigrants are less likely to switch to entrepreneurship than natives. That is, the disadvantages that immigrants have may prevent them from leaving paid employment to engage in entrepreneurship. Moreover, these liabilities seem to outweigh the advantages immigrants may have over natives in entrepreneurial activities. Hypothesis 1 is therefore supported.

Results concerning the coefficients estimated for individual characteristics in columns (2) and (4) do not present major surprises. The higher the wages individuals earn the less likely they are to switch from wage employment to entrepreneurship. Actual wages received in paid employment are a proxy for the opportunity cost of entrepreneurship and the opportunity cost effect has been found to dominate individuals' decisions to switch to entrepreneurship (Amit et al., 1995).

Wages are largely determined by human capital and human capital is commonly perceived as being determined by education, and by both general labor market experience as well as by firm-specific experience. Human capital can be valuable both in wage employment and in entrepreneurship and the value of these attributes in the two occupational choices is not necessarily the same. Our estimates indicate that education increases the probability of switching into entrepreneurship at least for more than 5 years education, reflecting the fact that education may develop the skills needed to evaluate market opportunities (Robinson & Sexton, 1994).

[Table 5 here]

Our results indicate that general experience in the labor market does not significantly affect the probability of individuals switch to entrepreneurship, but that specific experience in a firm does. The length of tenure in a firm is an indicator of the quality of the match between employer and employee. Controlling for wage, employees with longer tenures are likely to be more satisfied with their current employment than those for whom tenure is shorter, and are therefore, less likely to engage in exploring alternative occupations.

We also find that those who were previously engaged in entrepreneurial activities have higher probabilities of leaving their jobs to engage in entrepreneurship again. Individuals may differ in their predisposition to engage in entrepreneurship. Having been previously engaged in entrepreneurship may be an indication of this individual inclination. Previous involvement in entrepreneurship may also be relevant for the decision to switch into entrepreneurship again due to the specific knowledge about how to run a firm that this previous experience may have brought. Our results are consistent with the results by Evans and Leighton (1989) that prior experience in wage employment does not significantly affect transition to self-employment while prior self-employment experience positively affects transitions to self-employment.

Our controls for age and gender indicate that the probability of entrepreneurship increases until age 35 and decreases thereafter, that is, younger individuals are more likely to start a firm (Lévesque & Minniti, 2006; Minniti & Arenius, 2005) and that males are more likely to switch to entrepreneurship than females (Minniti and Nardone, 2007). Finally, the industries in which individuals were employed also affect the probability of switching into entrepreneurship, as industry dummies are jointly significant ($\chi^2(39)=237.04$, $p<0.0001$).

We hypothesized that, to the extent that natives and immigrants have different degrees of integration in the host country society, the value of individual job characteristics may be different for them. To account for this possibility, we interacted each one of the variables with the immigrant dummy. The effect of each variable upon switching into entrepreneurship for immigrants is obtained by adding the corresponding coefficient for natives and the interaction between the variable and the immigrant dummy. Because we are interested both on whether the equivalent coefficients are identical for the two samples, but also on the absolute magnitude of each coefficient and on testing whether the effect of each variable is zero or not, in Column (5) we report the absolute values of the effects for the two groups. The immigrant dummy translates into different intercepts for the two equations and accordingly, there is no separate coefficient for this dummy in Column (5).

Next to Column (5) we also report the test statistics for the equality of coefficients for natives and immigrants (equivalent of testing the significance of each interaction variable in a regression with explicit interactions). Differences in the coefficients for immigrants and natives are particularly relevant in what concerns

wages and tenure in the firm. The linear term of schooling is also statistically different for the two groups, but the null hypothesis that the linear and quadratic terms are jointly identical cannot be rejected, and therefore we conclude that the effect of education is not different for the two groups.

The impact of both wages and tenure upon the likelihood of transition to entrepreneurship is negative for both immigrants and natives, but the estimated effects are much larger for immigrants. The differences between the estimated effects for natives and immigrants are clearly significant and, indeed, the coefficients are not statistically significant for natives. Starting one's own firm is a risky endeavor and many firms do not survive more than a few years. In case of failure, the entrepreneur may have to find a new job. The value of holding a given job is greater the more difficult it is to find a new job. The finding that wages and tenure has a significantly larger impact upon the decision to switch to entrepreneurship for immigrants than for natives thus indicates that immigrants may be in a disadvantageous position relative to natives not only in entrepreneurship but also in wage work. None of the other attributes have a statistically different impact upon the probability of creating a firm by natives and immigrants.

Figure 3 displays the probabilities of transition to entrepreneurship evaluated at percentiles 1, 5, 10, 25, 50, 75, 90 and 95 of the tenure distribution of immigrants and natives. The effect of tenure upon the probability of transition is stronger for immigrants than it is for natives, partially supporting Hypothesis 2. Unfamiliarity and lack of legitimacy are additional hurdles immigrants face in the process of finding and keeping adequate jobs. This implies that, considering a particular job, immigrants are likely to have spent an amount of effort larger than the one spent by natives in order to obtain it. Therefore, it is costlier for immigrants to give up of a given wage or a given job in order to become an entrepreneur.

[Figure 3 here]

The impact of wages upon the likelihood of transition to entrepreneurship is negative for both immigrants and natives, although not statistically significant for the later. Work experience accumulated in the host country reflects skills valued in paid employment, which in turn translates into higher wages (Dustman & Costas, 2005) and thus into a higher opportunity cost of leaving wage employment. We estimated

the probability of transition to entrepreneurship at percentiles 1, 5, 10, 25, 50, 75, 90 and 95 of the wage distribution of immigrants and natives. These probabilities and respective confidence intervals are displayed in Figure 4. We can see that the opportunity cost of leaving wage employment is stronger for foreign individuals, which supports Hypothesis 2. The probability of transition to entrepreneurship decreases with wages in the case of immigrants while in the case of natives it remains fairly constant across wages. For most wage levels the difference in the probabilities of immigrants and natives is statistically significant (this does not hold only at very low wages) and this result is not a matter of precision in the estimation.

[Figure 4 here]

We estimated transition probabilities for both immigrants and natives evaluated at several schooling levels in order to have a clearer picture of the impact of education upon the probability of transition. Results are displayed in Figure 5 and we can see that the impact of education differs across natives and immigrants. Immigrants' probability of transition decreases with education while the opposite happens for natives. This difference is particularly relevant for higher levels of education. In addition, the impact of education upon transition probabilities is more evident for immigrants than it is for natives. These results suggest that, in the case of immigrants, education yields higher returns in salaried work than it does in entrepreneurship, while in the case of natives the opposite happens. Immigrants with higher education may be less discriminated and better accepted by employers than those with lower education levels, which suggests that skill transferability can be easier for immigrants with higher education levels. This result is consistent with Ferrer and Riddell (2008) who find that, in Canada, immigrants with a degree have considerably higher wages compared to those without a degree and these gains from having a degree are larger than those received by natives (for equivalent degrees).

Immigrants with higher education may be able to obtain better job matches than those with low levels of education as education may signal individuals' abilities or characteristics valued in salaried work (Harmon et al., 2003), which is of particular importance to immigrants. This effect together with the penalty immigrants may have in entrepreneurial earnings due to unfamiliarity and lack of legitimacy reduces the attractiveness of entrepreneurship for immigrants with higher education levels,

although education may endow them with better entrepreneurial skills. Natives do not need to compensate for unfamiliarity and lack of legitimacy in the same way immigrants do. As a consequence natives are likely to have better job matches than immigrants and the entrepreneurial earnings of natives will not be penalized by these disadvantages. Thus, in the case of natives, the positive contribution of education to entrepreneurial skills and thus to entrepreneurial earnings outweighs its contribution to higher wages.

[Figure 5 here]

The impact of host country experience upon the probability of transition is not statistically significant for both immigrants and natives. Thus Hypothesis 3 is not supported. Because we are considering individuals who already have a job and we are controlling for their tenure and previous entrepreneurial experience in the host country, the benefits of host country experience may not be as evident as they would be for those just arriving to the host country. In fact, immigrants who already have a job must have learned enough about the host country in order to obtain that job.

Likewise, immigrants who already had some entrepreneurial experience in the host country must have acquired some knowledge about how to do it. According to our results individuals with previous experience in entrepreneurship are more likely than those without such experience to switch to entrepreneurship again, which is consistent with findings by Carroll and Mosakowski (1987). Those with prior entrepreneurial experience are more likely to have a deeper understanding of entrepreneurship and to see it as an alternative to wage employment. As discussed earlier, one would expect that prior entrepreneurial experience would be more important for immigrants than for natives because entrepreneurial experience in the host country may also reflect the additional knowledge they acquired about being an entrepreneur in a foreign land. However, we find that the difference between the coefficients of immigrants and natives regarding prior entrepreneurial experience is not statistically significant. Thus, Hypothesis 4 receives only partial support. An immigrant with prior entrepreneurial experience has a probability of transition 2.5 percent points higher than an immigrant without such experience while for natives this figure is 2.2 percent points.

5.2 – Differences between home and host countries

Our previous results reveal that immigrants are less likely than natives to switch to entrepreneurship, which suggests that the impact of liabilities of foreignness dominates the impact of its possible creativity benefits. We argued earlier that differences between home and host countries would affect foreigners' entrepreneurial behavior as they can, on the one hand, exacerbate the liabilities foreigners experience and, on the other hand, allow foreigners to exploit opportunities missed by natives.

To study the impact of country of origin upon the likelihood of switching into entrepreneurship, we restrict the analysis to immigrant entrepreneurs and extend our model to include variables accounting for differences between individuals' home and host countries.

The results, displayed in Table 6, confirm the hypothesis that cultural and political distance between home and host countries increases the probability that foreigners switch to entrepreneurship thereby supporting Hypothesis 5. Both cultural and political distances exert a positive and significant effect upon the chances of switching into entrepreneurship. Adaptation and integration in the host country is harder for those that are more unfamiliar with it, as is the case of individuals from countries that are more dissimilar to the host country. It may be more difficult for such individuals to find adequate jobs. Individuals from countries that are less similar to the host country may also face greater discrimination and experience greater difficulties in finding a job than individuals from more similar countries. This, in turn, increases the relative attractiveness of entrepreneurship, as discrimination may induce entrepreneurship among those who feel discriminated against (Constant and Zimmerman, 2006). On the other hand, foreigners' detachment from the prevailing norms and attitudes within the host country may work in their favor in letting them identifying opportunities that locals cannot detect. Therefore, those from dissimilar countries may be at a better position *vis-a-vis* foreigners from similar countries, to exploit opportunities resulting from such detachment. Some of these opportunities arise from the greater relative advantage over natives in serving consumers of the same nationality or ethnic group than individuals from similar countries. Therefore, the relative gains of entrepreneurship are higher for those coming from countries that

are more different from the host country than they are for those from similar countries.

Our results also indicate that individuals coming from wealthier countries are more likely to become entrepreneurs than those from poorer countries. Immigrants from high-income countries were found to have higher levels of total wealth than those from poorer countries (Akresh, 2011). Personal savings, being a major source of funding for those engaging in entrepreneurship, are of particular importance to immigrants, as they may be discriminated against in credit markets. Those from high-income countries are thus less likely to be financially constrained and excluded from entrepreneurship than those from low-income countries. For example, Fairlie and Meyer (1996) find that self-employment rates are higher among foreigners from groups with an advantage in terms of capital.

[Table 6 here]

The level of economic development of individuals' countries of origin can determine how successfully they assimilate in wage employment. Haley and Taengnoi (2011) found that, in the US, the degree to which individuals can transfer the skills they acquired abroad is lower for those from less developed countries *vis-a-vis* those form developed countries. As a consequence, immigrants from less developed countries tend to be less successful in wage employment than those from developed countries. Therefore, the skills of individuals from less developed countries may be perceived in the host country as less legitimate or even inferior to the skills of those from developed countries (Chiswick & Miller, 2012).

[Figure 6 here]

5. Conclusion

Immigrants may be a source of diverse skills contributing to job creation and economic growth (Van Praag & Versloot, 2007; Wildeman et al., 1990) and several countries have implemented policies to support immigrant entrepreneurs already in the country and also to attract new ones OECD, 2010. Thus, it is important to understand the entrepreneurial behavior of immigrants in order to improve integration

policies, which in turn may help economic growth and job creation in the host country.

We study the transition of immigrants and natives from salaried work to entrepreneurship. We see how individuals' characteristics affect their entrepreneurial decisions and how differences between home and host countries affect the entrepreneurial behavior of immigrants. Our interest is on immigrants that choose to engage in entrepreneurship rather than in those that resort to entrepreneurship because they excluded from other occupational alternatives.

We find that, after controlling for individual characteristics, immigrant workers have lower probabilities of switching to entrepreneurship when compared to natives. This suggests that immigrants may have disadvantages relative to natives that affect their entrepreneurial behavior. Immigrants are less familiar with the local environment and local agents may discriminate them because they see immigrants as less legitimate than natives.

Our results suggest that immigrants have a higher opportunity cost of leaving a given job when compared to natives. Tenure in the firm and wages decrease the probability of individuals switch to entrepreneurship and this effect is stronger in the case of immigrants. Immigrants are required to spend an additional effort in learning about the host country and building legitimacy and thus they are less likely than natives to give up a given job or a given wage in order to become an entrepreneur. Contrary to what we would expect, entrepreneurial experience in the host country increases the probability of both natives and immigrants switch to entrepreneurship but the magnitude of this effect is similar for both groups.

Individuals' country of origin affects their probability of switching to entrepreneurship. Individuals from countries culturally and politically more dissimilar to the host country have higher probabilities of engaging in entrepreneurship. This suggests that the relative value of entrepreneurship is higher for individuals from dissimilar countries than for those from similar countries. Individuals from less developed countries are more likely to switch to entrepreneurship the wealthier their country of origin is, while for those from countries more developed than the host country the opposite happens. Host country's employers may perceive the skills of individuals from less developed countries as less legitimate than the skills of those from developed countries. Thus, despite the higher financial constraints they face,

individuals from less developed countries may engage in entrepreneurship in order to obtain a better return on their skills.

Many countries have been encouraging entrepreneurship (Román et al., 2013) as a mean to boost job creation and economic growth. Such encouragement has targeted not only local individuals but also foreigners (OECD, 2010).Migration policies facilitating the entry and stay of immigrants willing to create their businesses have played an important role among the measures to encourage entrepreneurship among foreigners(OECD, 2010). Our results suggest that along with these migration policies, it is also necessary to provide foreigners with tools allowing them to reduce or overcome their liabilities. These tools may include training that helps them learn about the host country or the promotion of interactions with local actors in order to build legitimacy. For example, Hiebert (2008)finds that, although Canada welcomes foreign entrepreneurs, their success can be compromised by poor language skills or misunderstanding of labor codes and regulations, among others. In addition, measures that improve foreigners' access to credit are also important, as banks are often reluctant to finance foreigners because they are associated with a higher risk of default. Evidence from the UK shows that providing foreigners with capital and loan guarantees promote the success of their entrepreneurial ventures (Ramsden, 2008).

Policies supporting the reduction of obstacles to entrepreneurship are particularly important for those with greater liabilities. Those from countries that are more different from the host country may be more unfamiliar with the local environment and face more discrimination. Nevertheless, our results suggest that these individuals may also be those that are more likely to start entrepreneurial ventures. They may be a source of diverse entrepreneurial skills and thus policies supporting their engagement in entrepreneurship may also be appropriate.

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Tables

Table 1. Sample Averages: Unmatched Sample

Unmatched Sample			
All Sample	Native	Foreign	Difference = N - F
Host Country Experience	13.297	3.157	10.140***
Previously Entrepreneur	0.021	0.003	0.018***
Tenure in Firm	8.795	2.977	5.818***
Hourly Wage	6.443	5.323	1.120***
Male	0.572	0.658	-0.086***
Schooling Years	8.276	6.997	1.279***
Age	37.621	35.143	2.478***
Number of Individuals	2 921 984	103 493	
Number of observations	11 331 680	249 880	
Switch to Entrepreneurship	Native	Foreign	Difference = N - F
Host Country Experience	10.668	2.805	7.863***
Previously Entrepreneur	0.108	0.033	0.075***
Tenure in Firm	5.518	2.300	3.218***
Hourly Wage	7.341	4.351	2.99***
Male	0.676	0.736	-0.060***
Schooling Years	9.657	6.354	3.303***
Age	34.668	34.150	0.518
Number of Individuals	25517	603	
Number of observations	25 617	605	

Table 2. Sample Averages: Matched Sample

Matched Sample			
All Sample	Native	Foreign	Difference = N - F
Host Country Experience	3.326	3.224	0.102***
Previously Entrepreneur	0.003	0.003	0.000***
Tenure in Firm	3.045	3.019	0.0260***
Hourly Wage	4.897	5.344	-0.447***
Male	0.636	0.656	-0.02***
Schooling Years	7.341	7.195	0.146***
Age	35.159	35.082	0.077***
Number of Individuals	198 250	100 269	
Number of observations	265 767	242 736	
Switch to Entrepreneurship	Native	Foreign	Difference = N - F
Host Country Experience	2.667	2.894	-0.227
Previously Entrepreneur	0.025	0.035	-0.010
Tenure in Firm	2.514	2.343	0.171*
Hourly Wage	5.018	4.375	0.643***
Male	0.716	0.727	-0.011
Schooling Years	8.244	6.671	1.573***
Age	33.935	33.970	-0.035
Number of Individuals	851	573	
Number of observations	851	575	

Table 3. Sample Correlations

Immigrants		Average	Std. Deviation	1	2	3	4	5	6	7	8	9
1	Host Country Experience	3.224	4.183	1.000								
2	Previously Entrepreneur	0.003	0.055	0.153	1.000							
3	Tenure in Firm	3.019	3.021	0.730	0.031	1.000						
4	Hourly Wage	5.344	16.884	0.077	0.026	0.084	1.000					
5	Male	0.656	0.475	0.032	0.013	0.021	0.055	1.000				
6	Schooling Years	7.195	4.514	0.129	0.020	0.145	0.100	-0.099	1.000			
7	Age	35.082	9.259	0.316	0.074	0.279	0.062	0.030	0.012	1.000		
8	Cultural Distance	25.067	24.245	0.207	0.072	0.196	0.100	-0.030	0.203	0.212	1.000	
9	Political Distance	1222.957	732.488	0.031	-0.028	0.031	-0.010	0.014	-0.017	-0.001	-0.099	1.000
	Home Country GDP pc	4824.547	6821.168	0.252	0.071	0.250	0.130	-0.043	0.294	0.173	0.842	-0.082
Natives		Average	Std. Deviation	1	2	3	4	5	6	7	8	9
1	Host Country Experience	3.326	4.938	1.000								
2	Previously Entrepreneur	0.003	0.059	0.115	1.000							
3	Tenure in Firm	3.045	3.283	0.683	0.023	1.000						
4	Hourly Wage	4.897	5.017	0.120	0.018	0.127	1.000					
5	Male	0.636	0.481	0.020	0.013	-0.003	0.099	1.000				
6	Schooling Years	7.341	4.194	-0.037	0.003	-0.001	0.253	-0.066	1.000			
7	Age	35.159	9.41	0.276	0.044	0.232	0.040	0.027	-0.247	1.000		

Table 4. Education Levels of Individuals Switching to Entrepreneurship

Schooling Years	Native	%	Foreign	%
[0,4]	210	0.247	252	0.440
[5,9]	371	0.437	184	0.321
[10,12]	186	0.219	106	0.185
[13, …]	82	0.097	31	0.054

Table 5. Probability of Entrepreneurship: Individual Characteristics

	(1)	(2)	(3)	(4)	(5)		
	Unmatched Sample		Matched Sample		Matched Sample		
					Native	Immigrants	t Stat.
Immigrant	0.024*	-0.063***	-0.098***	-0.109***			
	(0.013)	(0.014)	(0.018)	(0.018)			
ln(Experience)		-0.001		0.005	-0.012	0.018	1.16
		(0.003)		(0.012)	(0.017)	(0.019)	
ln(Tenure in Firm)		-0.080***		-0.080***	-0.035	-0.129***	2.66
		(0.003)		(0.017)	(0.024)	(0.026)	
Prev. Entrepreneur		0.554***		0.832***	0.776***	0.929***	1.08
		(0.008)		(0.070)	(0.097)	(0.104)	
ln(Hourly Wage)		-0.010**		-0.078***	-0.016	-0.173***	3.35
		(0.005)		(0.022)	(0.029)	(0.037)	
Male		0.171***		0.170***	0.142***	0.204***	1.36
		(0.005)		(0.022)	(0.029)	(0.035)	
Schooling Years /100		1.266***		-2.365***	0.589	-3.467***	2.86
		(0.224)		(0.686)	(1.022)	(0.985)	
Schooling $Years^2$ /10000		8.296***		21.755***	10.068*	21.175**	1.21
		(1.194)		(4.380)	(6.120)	(6.869)	
Age /1000		44.813***		53.932***	56.785***	52.865***	0.24
		(1.704)		(7.885)	(10.580)	(12.046)	
Age^2 /1000000		-643.610***		-777.916***	-806.499***	-747.583***	0.26
		(21.569)		(107.620)	(144.789)	(163.394)	
Constant	-2.810***	-3.354***	-2.754***	-3.848***	-3.810***	-4.280***	1.10
	(0.005)	(0.048)	(0.029)	(0.210)	(0.276)	(0.329)	
Log Likelihood	-189336.3	-176303.3	-9765.4	-9434.934	-9301.383		
Number of Obs.	11881701	11574001	508503	493986	477288		

Note: Jointly, linear and quadratic terms of schooling and age are not significantly different for immigrants and natives: χ^2 statistics of 0.81 and 0.08 respectively.
Significance is indicated as follows * p<0.10 ** p<0.05 *** p<0.001 (two tailed tests).

Table 6. Probability of Entrepreneurship: Home Country Characteristics

	(1)	(2)	(3)	(4)	(5)
Cultural Distance	0.005***			0.003***	0.009***
	(0.001)			(0.001)	(0.001)
Political Distance		0.100***		0.111***	0.094***
		(0.021)		(0.023)	(0.025)
ln(GDPpc/10000)			0.085***	0.092***	
			(0.018)	(0.022)	
ln(GDPpc Below/10000)					0.185***
					(0.030)
ln(GDPpc Above/10000)					-0.913**
					(0.178)
ln(Experience)	0.012	0.057**	0.027	0.075**	0.064**
	(0.022)	(0.029)	(0.022)	(0.029)	(0.030)
ln(Tenure in Firm)	-0.114***	-0.125***	-0.121***	-0.134***	-0.117***
	(0.032)	(0.036)	(0.032)	(0.036)	(0.037)
Previously Entrepreneur	0.878***	1.166***	0.891***	1.109***	1.138***
	(0.114)	(0.160)	(0.114)	(0.160)	(0.161)
ln(Wage)	-0.263***	-0.159***	-0.279***	-0.209***	-0.158***
	(0.044)	(0.047)	(0.045)	(0.048)	(0.048)
Male	0.210***	0.205***	0.229***	0.202***	0.191***
	(0.039)	(0.043)	(0.039)	(0.043)	(0.044)
Schooling/100	-2.774**	-3.810**	-3.382**	-2.704**	-2.675**
	(1.213)	(1.280)	(1.200)	(1.301)	(1.304)
Schooling²/10000	17.698**	25.146**	19.939**	15.042	16.531*
	(8.426)	(8.971)	(8.398)	(9.189)	(9.172)
Age/1000	59.755***	43.242**	59.398***	51.636***	47.132***
	(13.393)	(15.411)	(13.383)	(15.566)	(15.623)
Age²/1000000	-801.954***	-566.692**	-771.166***	-704.049***	-641.845***
	(181.008)	(210.711)	(180.496)	(213.056)	(213.647)
Constant	-5.511***	-4.449***	-5.365***	-4.787***	-4.412***
	(0.395)	(0.434)	(0.395)	(0.440)	(0.444)
Log Likelihood	-2728.392	-2330.850	-2743.546	-2302.631	-2285.890
Number of Obs.	132829	106839	132829	106839	106839

Significance is indicated as follows * p<0.10 ** p<0.05 *** p<0.001 (two tailed tests).

Figures

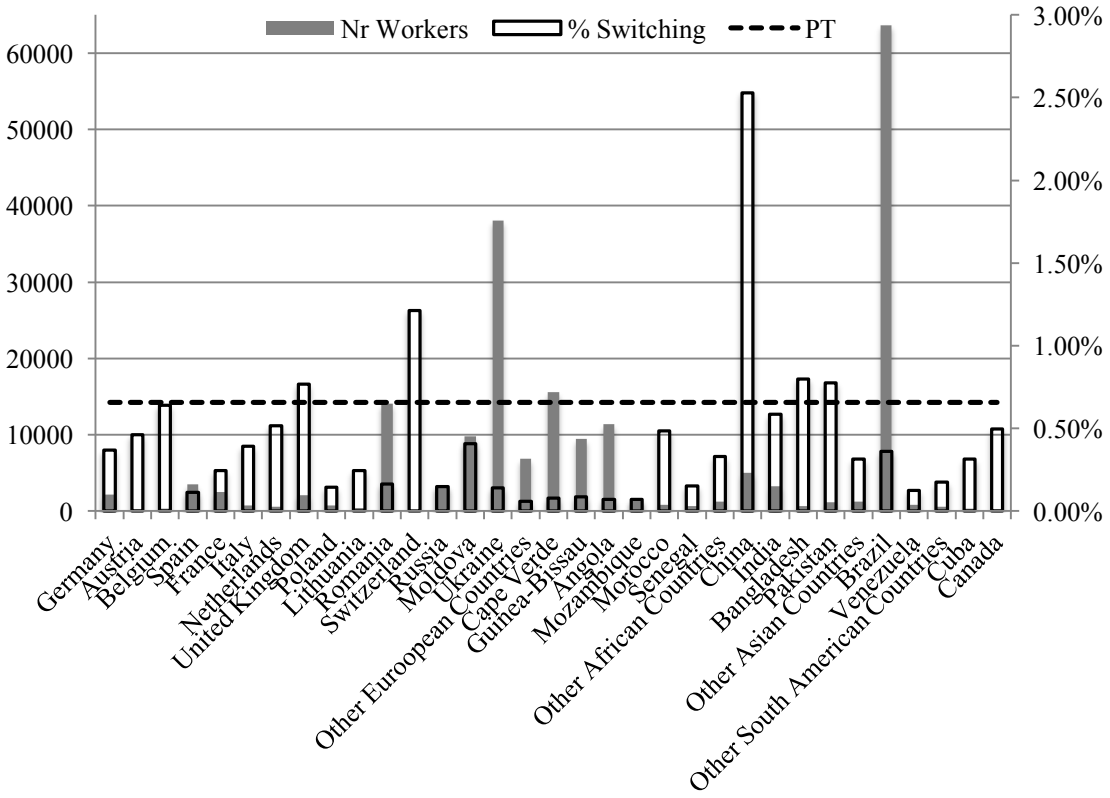

Figure 1. Individuals By Country of Origin

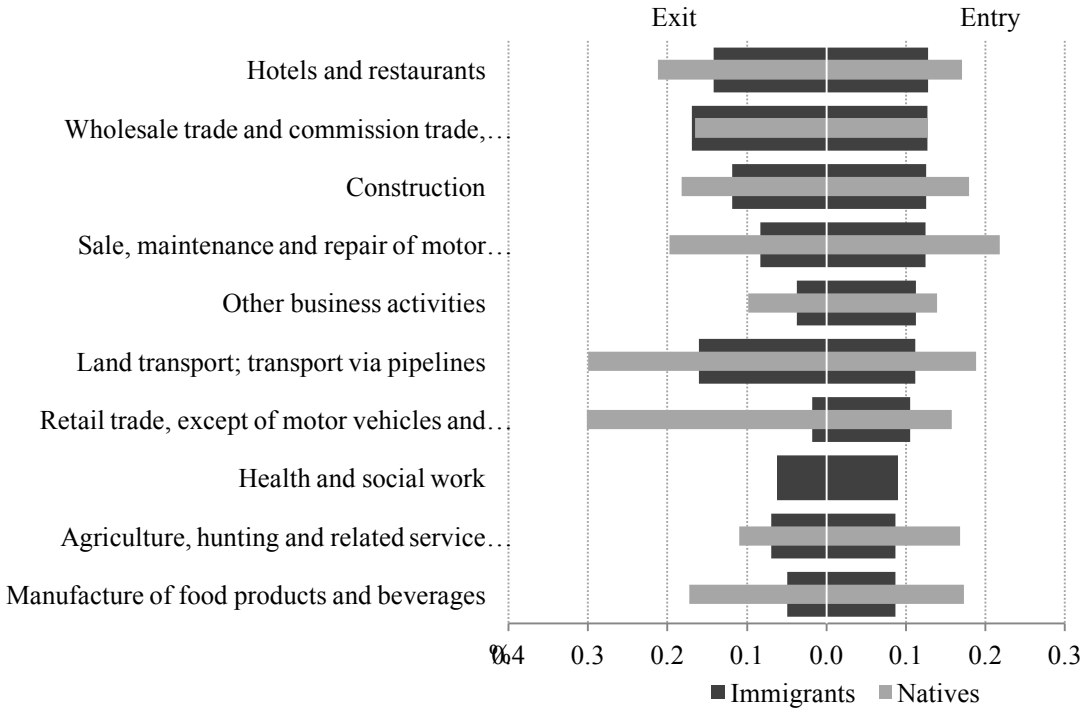

Figure 2. Top Entry and Exit Sectors

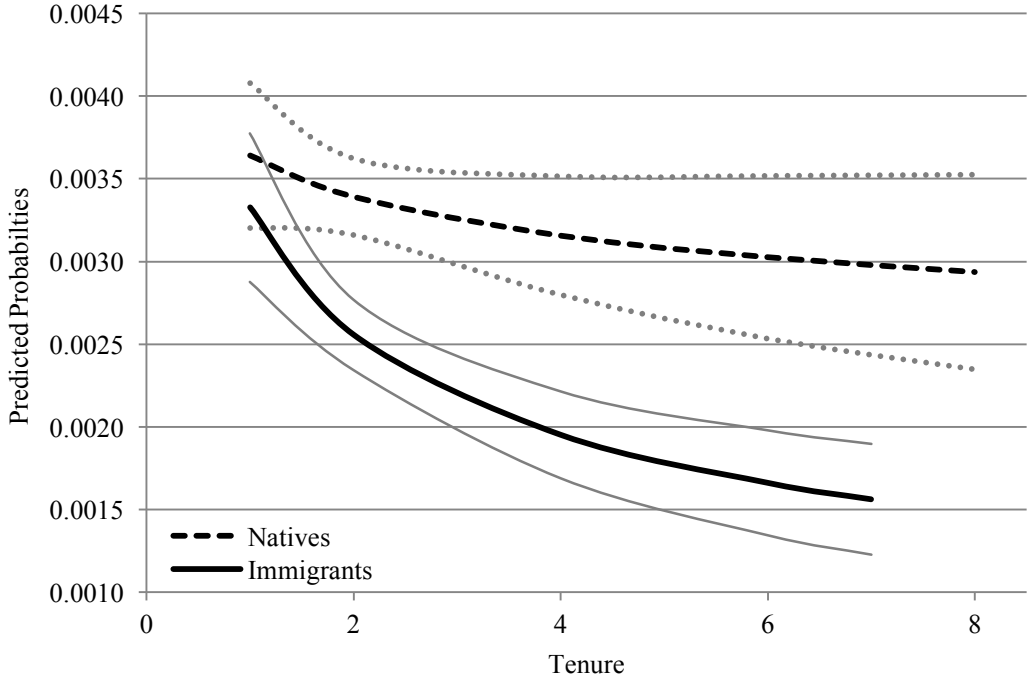

Figure 3. Predicted Probabilities: Tenure in the Firm

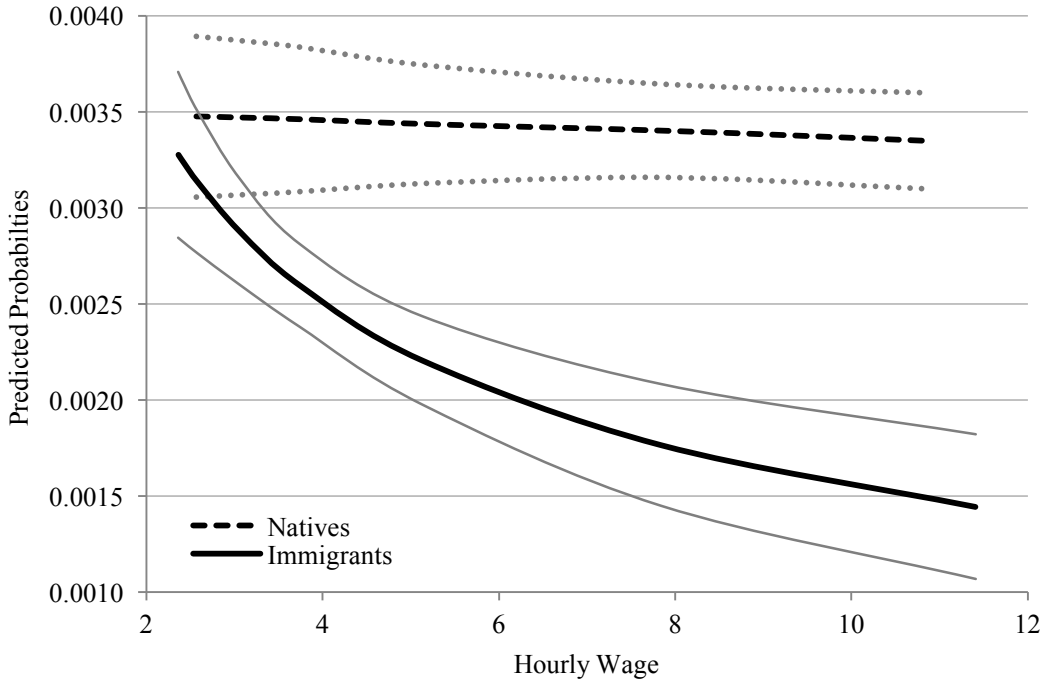

Figure 4. Predicted Probabilities: Wages

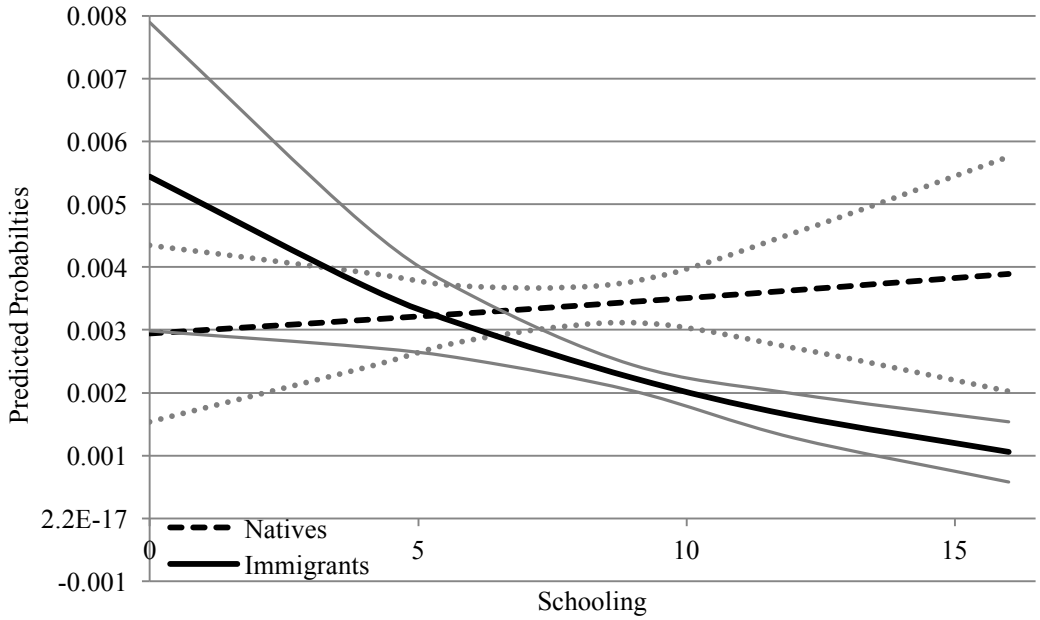

Figure 5.Predicted Probabilities: Schooling

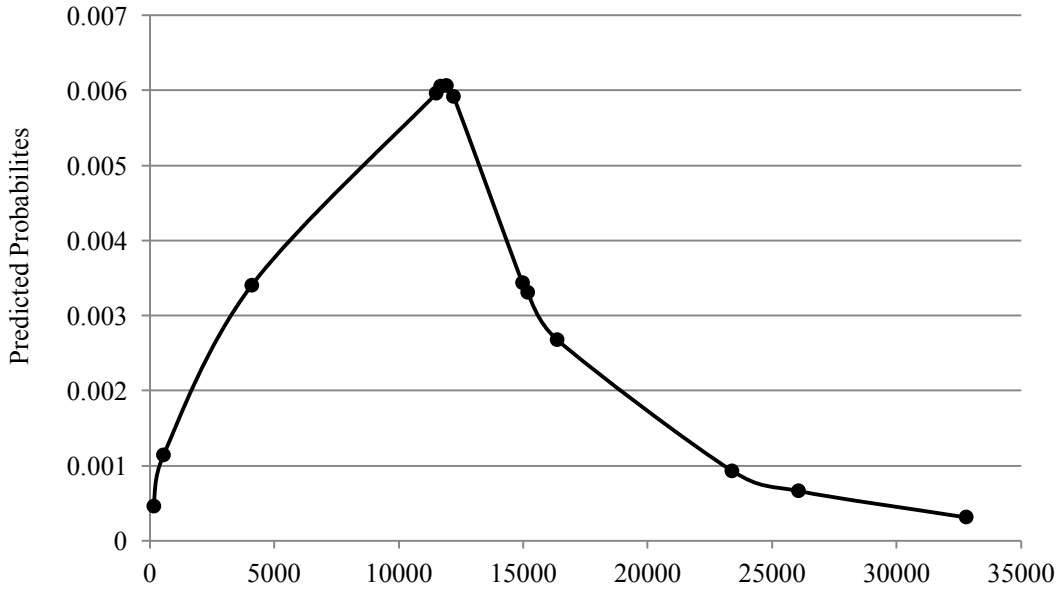

Figure 6. Predicted Probabilities: GDPpc