The Survival of Firms Founded by Foreign Entrepreneurs

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Abstract

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1. Background
Entrepreneurs' characteristics such as human capital, age or gender have been found to determine entrepreneurial survival (Gimeno et al., 1997; Boden and Nucci, 2000).
On the other hand, the international business literature indicates that foreign firms experience liabilities of foreignness (Zaheer, 1995). While these liabilities have been mostly studied at the level of the multinational corporation, foreign entrepreneurs are also likely to experience many of these liabilities of foreignness, such as unfamiliarity with the local environment and lower legitimacy at the eyes of natives than domestic entrepreneurs.

2. Contribution
We bridge these two different literatures and compare the survival of firms created by foreign and domestic entrepreneurs.

3. Theoretical Arguments
We propose that firm exit will be determined by entrepreneurs' foreignness, host country experience and institutional distance between their home and host countries. Foreign entrepreneurs face disadvantages relative to their domestic counterparts, namely unfamiliarity with the local environment and lack of legitimacy. Host country experience enables learning about the host country and the acquisition of legitimacy, thus reducing the liabilities of foreignness. Unfamiliarity and lack of legitimacy are closely related to differences in the institutional profiles of the home and host countries.

4. Data and Method
Our data come from Quadros de Pessoal which is a linked employer-employee longitudinal dataset covering all firms with paid labor in Portugal. This dataset is obtained from a mandatory annual survey conducted by the Portuguese Ministry of Employment and includes information enabling the distinction between firms with and without foreign entrepreneurs. We track over 100,000 new firms during the period 2002-2007. Institutional distance measures from Berry, Guillen and Zhou (2010) and data on countries’ GDPpc were added to our dataset. Probabilities of firm exit are estimated with a logit model with the binary dependent variable for firm exit (1 for exit, 0 for survival). We control for entrepreneur, firm, and industry characteristics.

5. Results
We find that firms with foreign entrepreneurs are more likely to exit than their domestic counterparts, even after controlling for entrepreneur, firm and industry characteristics. Firms started by individuals coming from countries which are institutionally distant from the host country – Portugal – have lower exit rates than those coming from less distant countries. Individuals coming from countries which are less developed than Portugal are more likely to exit than those coming from richer countries. The length of the tenure in the host country labor market reduces the likelihood of exit.

REFERENCES
Abstract

We study the survival of firms created by foreign entrepreneurs and reach the following findings. Survival of firms created by foreign entrepreneurs is significantly lower than that of comparable domestic ones. Previous experience in the host country significantly increases the prospect of survival of firms created by foreigners. Entrepreneurs originating from more developed countries confront significantly lower chances of exit than those coming from less developed countries. However, firms created by entrepreneurs coming from countries in which institutions are more different from those in the host country exhibit lower exit rates.
1. Introduction

Many studies have shown that the survival of new firms is related to the characteristics of the founding entrepreneurs (e.g. Taylor, 1999; Bates, 1990). In this literature, characteristics such as human capital, age and gender were found to be important for the chances of entrepreneurial survival (Gimeno et al., 1997; Boden and Nucci, 2000). The few studies that analyze foreign entrepreneurs focus on one particular nationality (Kalnins and Chung, 2006), a small number of nationalities (Bates, 1997), or emphasize ethnic aspects of the considered immigrant group (Evans, 1989). This fails to recognize that the high mobility of individuals in today’s world leads to an increasing number of multicultural businesses which are not restricted to ethnic businesses, but rather spread to a wide range of sectors and innovative areas (OECD, 2010). This limited focus also means that there are virtually no studies comparing domestic and foreign entrepreneurs, and that is not easy to assess whether foreign entrepreneurs do better or worse than their domestic counterparts or which is the impact that the country of origin exerts upon the chances of survival.

While the literature on the survival of entrepreneurial firms has not dealt with the foreign dimension, there is a stream of literature in international business originating in the work of Zaheer (1995) that indicates that foreign firms suffer from specific liabilities. These liabilities, which accrue from their foreignness, put them in a disadvantage vis a vis their domestic counterparts and lead to increased chances of exit of foreign firms relative to those of local firms. According to Zaheer (1995) there are four sources of these liabilities: unfamiliarity with the local environment, lack of legitimacy, constraints imposed by host countries’ and costs associated with distance such as coordination costs. Some of these sources apply mostly to multinationals, as this literature has originated with the multinational corporation in mind. Yet, many of them also apply to the small entrepreneurial firm that operates in a foreign country. In particular small entrepreneurial firms started by foreigners are likely to be somewhat unfamiliar with the local environment and to be perceived by natives as less legitimate than domestic entrepreneurs. The extent to which foreign entrepreneurs lack familiarity with the host country and are seen as less legitimate at the eyes of locals is closely related to institutional differences between home and host countries. Attitudes and behaviors are largely shaped by the institutions people are accustomed with (Mueller and Thomas, 2001; North, 1991). Entrepreneurs coming from countries with different institutional profiles may be accustomed to rules of doing business that are different from
those prevailing in the host country and such differences may result in difficulty in understanding the host country and in lack of legitimacy.

In this work, we use data on firms that were created in Portugal during the period 2002 – 2007 by foreign and domestic entrepreneurs to assess whether entrepreneurs’ foreignness affects the chances of survival of their firms. Furthermore, because our dataset includes entrepreneurs coming from more than 40 countries, we are able to evaluate the impact of the institutional profiles of their home countries upon the chances of success of their firms.

The paper is organized as follows. We begin by deriving a set of hypotheses on the impact of foreignness and institutional distance between the host and home countries on business survival. We next move to the methods employed and discuss the data and statistical models used in our analysis. We then present and discuss the empirical results. Finally, we offer concluding comments.

2. Literature Review and Hypotheses

Liabilities of Foreignness

Foreign firms face disadvantages that local firms do not. As a result foreign firms have been found to be less profitable (Zaheer, 1995) exhibit poorer performance (Miller and Parkhe, 2002) and confront greater exit rates (e.g. Zaheer and Mosakowski, 1997) than their domestic counterparts. The International Business literature has emphasized that multinationals also possess advantages relative to domestic firms. These arise from their relative superiority with respect to technology, marketing or organization and enable those firms to operate in foreign countries despite the liabilities they confront in such markets. The overall effect of foreignness in multinationals is therefore difficult to predict as it depends on the weight of the costs and advantages foreign firms have compared to those of domestically owned firms (Nachum, 2010).

Samples of small entrepreneurial firms are particularly appropriate to evaluate the effect of the liabilities of foreignness. Small and medium enterprises (SMEs) are not simply smaller versions of large multinational firms. They have different managerial processes with less sophisticated and less complex structures and do not possess benefits of foreign ownership, such as access to capital or knowledge from the parent company, that may outweigh the costs of foreignness (Kronborg and Thomsen, 2009). A key difference between smaller businesses and multinational corporations is the strong influence of the owner
and/or manager on the small firm (Barringer et al., 2005). Therefore, the linkage between individual characteristics and firm outcomes is expected to be direct and pronounced in the context of SMEs (Chandler and Hanks, 1994; Reuber and Fischer, 1997).

Of course, there are also disadvantages of foreignness that are specific to multinationals and that smaller firms do not confront. Foreign entrepreneurs typically do not have to solve problems of intra-organization relations such as the transfer of parent firms’ routines to subunits (Kostova, 1999; Kostova and Roth, 2002) nor do they incur the costs of coordinating multiple units in multiple countries. They are also less likely to confront constraints from the host countries, as residence is normally the criteria for imposing such constraints, although in some professions, such constraints may apply (Iredale 2001).

Unfamiliarity with the local environment and lack of legitimacy are likely to be very relevant for small entrepreneurial firms. These firms rely on the knowledge possessed by entrepreneurs on how to do business rather than on knowledge residing in the organization (Shrader, Oviatt and McDougall, 2000). However, the human capital and experience of individuals loose value when they go abroad (Friedberg, 2000). Upon arrival to a foreign country, even experienced individuals in their home country will find themselves in disadvantage relative to locals. Legitimacy in turn is important for gaining access to critical resources for survival and growth (Zimmerman and Zeitz, 2002; Rutherford et al., 2009). Foreign entrepreneurs may be at a disadvantage here, as discrimination against foreigners seems to be pervasive in attitudes towards emigration (Mayda 2006), in the labor market (Chiswick 1978, Reimers 1983) and from the part of consumers (Nardinelli and Simon 1990).

We thus hypothesize that

\[ \text{Hypothesis 1: Firms owned by foreign entrepreneurs exhibit higher exit rates than firms owned by domestic entrepreneurs.} \]

**Host Country Experience**

Some liabilities of foreignness dissipate over time. Zaheer and Mosakowski (1997) find that foreign trading rooms are more likely to exit than domestic ones but, with long enough tenure, exit rates of foreign trading rooms approach those of their local counterparts. This suggests that the costs of doing business abroad are declining as firms gain more familiarity and legitimacy in the local environment.
Dahl and Sorenson (2012) find that firms that operate in locations where their founders lived longer tend to survive longer and have greater profits. Given the greater profitability exhibited by firms run by these local entrepreneurs, the result with respect to survival appears to stem from greater familiarity with these locations rather than from a preference to remain close to family and friends.

Firms may try to build legitimacy by conforming to the local environment (Suchman, 1995) and the same applies to individuals. However, because one cannot conform to something one does not know, learning about the host country can be seen as a pre-requisite for gaining legitimacy. As learning does not happen overnight, the length of stay in the host country plays an important role in the development of capabilities applicable to that country (Barkema et al., 1996). The longer the host country experience the easier it is to adapt practices to the local environment (Luo, 1997; Delios and Hernisz, 2003) and to develop social knowledge and harmonious relationships with local actors (Sohn, 1994; Zhou et al., 2007). As a consequence, firms which have been in the host country for longer have been found to display higher survival (Delios and Beamish, 2001) and have better performance (Luo and Peng, 1999) than newcomers.

Integration in the host economy over the course of the stay in the country has also been found to happen for individuals, as the wage earnings of foreign-born individuals have been shown to increase during their stay in the host country (Chiswick, 1978) Because host country experience allows foreign entrepreneurs to reduce liabilities related to unfamiliarity and lack of legitimacy, we hypothesize that:

\textit{Hypothesis 2: Foreign entrepreneurs with longer host country experience lower exit rates.}

\textbf{Differences between home and host countries}

\textbf{Development in the home country}

The economic development in the home country of the entrepreneurs that start new firms may affect the chances of survival of these new firms in different ways. The first is that otherwise identical individuals that originate from different countries are likely to have access to different amounts of resources. Many firms are liquidity constrained (Holtz-Eakin et al., 1994) and these constraints have been found to play an important role in determining entrepreneurial survival, with easier access to capital leading to better survival chances (Taylor, 1999; Bates, 1990; Gimeno et al., 1997). In general, entrepreneurs rely on their personal
savings as a primary source of funding. Getting external funding can be particularly challenging for foreign entrepreneurs, since investors seem to prefer investing in local firms rather than in foreign ones (Chan et al., 2005). Foreign entrepreneurs may thus therefore face an aggravated liability of foreignness in capital markets (Bell et al., 2012). Being financially constraint is particularly likely for those entrepreneurs that had fewer opportunities to accumulate wealth, as it happens to those coming from lower income countries.

In addition, countries incomes determine consumers’ purchasing power and preferences (Berry et al., 2010). These preferences are more consistent in less developed countries than in industrialized countries where the variability in evaluation is higher (Cordell, 1992). Therefore, foreign firms need to adapt consumer related strategies such as export strategies or marketing programs to host countries’ consumers (Aulakh et al., 2000). If consumers are not provided with products adequate to their preferences, they will not buy them (Balabanis et al., 2001; Kaynak and Kara, 2002).

These arguments lead us to the following hypothesis:

**H4a: Entrepreneurs from countries that have lower incomes are more likely to exit.**

However, the survival of new firms is in part determined by their entrepreneurs’ opportunity costs (Gimeno et al., 1997), and those originating from countries with higher income per capita may have higher opportunity costs. In the migration literature, it has been found that the return of migrants to their country of origin depends, among other things, on the earnings differentials between home and host countries (Dustmann, 2003; Sjaastad, 1962), with foreign born individuals returning more if their home countries are wealthy rather than poor (Borjas and Bratsberg, 1996). Based on this evidence we suggest that the opportunity cost of running a business abroad is higher for entrepreneurs originating from home countries that are more developed than their host countries. The expected consequence is stated in the following hypothesis.

**H4b: Entrepreneurs from countries more developed than the host country have higher exit rates.**
Institutions of the home country

A major reason why doing business abroad may pose a particular predicament is because different countries have different attitudes and behaviors and different ways of doing business. To a large extent, these attitudes are shaped by the countries’ institutions, which are defined by North as “the humanly devised constraints that structure political, economic and social interactions” (1991, p. 97). Institutions can be formal and informal, formal institutions including property rights, constitutions and laws while informal institutions including sanctions, taboos, customs, traditions and codes of conduct.

The interaction of agents from different countries originates a two-sided relationship between their institutional background and host countries’ institutional profile. On one side, host countries’ institutional profiles affect foreigners’ attitudes towards that country (Makino et al., 2004; Meyer et al., 2009). Firms’ choices regarding entry and ownership have been found to be affected by factors such as corruption, regulations or expropriation hazards in the host country (Rodriguez et al., 2005; Delios and Henisz, 2001, 2003; Peng and Heath, 1996) and the performance of foreign affiliates has been found to decrease with the level of institutional development (Chan et al., 2008). On the other side, agents’ institutional background influences their behavior towards foreign environments. For instance, investors exposed to corruption may seek countries where corruption prevails rather than countries engaged in deterring this phenomenon (Cuervo-Cazurra, 2006).

One important consequence arising from differences between home and host countries institutions is an aggravated liability of foreignness (Eden and Miller, 2004; Kostova and Zaheer, 1999). The more different home and host countries are the more difficult it is for foreign firms to understand and adapt to the local environment (Orr and Scott, 2008). Similarly, it is more difficult for local actors to understand foreign firms and they are perceived to be less legitimate (Kostova and Zaheer, 1999). These firms are more likely to face discriminatory treatments, inflicted by local governments, consumers and suppliers (Eden and Miller, 2004). This aggravated liability of foreignness may be among the reasons why firms are less likely to enter in institutionally distant countries (Berry et al., 2010).

Several authors argue that embeddedness in host country institutions is necessary to overcome liabilities associated with being a foreign or an outsider (Johanson and Vahlne, 2009; Henisz, 2003). For example, isomorphic strategies are often used by foreign firms as a means to benefit from compliance with the host environment (e.g. Rosenzweig and Nohria, 1994). In countries with underdeveloped institutions,
firms from similar home countries (which tend to be less competitive than firms from countries with more advanced institutions) can be at advantage since they are used to operate in similar conditions and thus better able to embed in the rules of the game (Cuervo-Cazurra and Genc, 2008).

Our next hypothesis therefore posits that

\[ H3a: \text{Entrepreneurs coming from countries with a higher institutional distance to the host country experience higher exit rates than those coming from countries that are close.} \]

Institutional distance may also have its own benefits and conformity needs not to be always good. Conformity may help to gain legitimacy but differentiation may reduce competition (Deephouse, 1999). Miller and Eden (2006) show that in environments where competition for the same resources is intense, differentiation from the strategies of local firms may actually increase foreign performance. Siegel et al. (2010) find that, in South Korea, less embedded foreign firms were able to spot that women were discriminated in the labor market and to take advantage of this by hiring a disproportionate share of female managers relative to local firms. In addition, while countries which are institutionally close to the home country may be better understood and provide more familiar environments, such a feeling of closeness may also hinder relevant learning (O’Grady and Lane, 1996). Embeddedness in host country institutions may be useful to overcome liabilities but, if it prevents foreigners from exploiting advantages they may have, such embeddedness may become itself a liability (Sun et al., 2010).

This leads to our next hypothesis, which we formulate as

\[ H3b: \text{Entrepreneurs coming from countries with a higher institutional distance to the host country experience lower exit rates than those coming from countries that are close.} \]

3. Methods

Data
The data used in this study comes from Quadros de Pessoal, a dataset which covers all firms with paid labor in Portugal. This dataset is obtained from a mandatory annual survey conducted by the Portuguese Ministry of Employment covering all firms employing paid labor. The dataset includes information on all the
individuals working at each firm, namely their nationality and occupational status, which distinguishes between employees and employers (business owners). In addition, the data have a longitudinal nature with unique numbers identifying firms and individuals over time. Such characteristics make this dataset a unique source to compare entry and survival of firms created by foreign and domestic entrepreneurs. We identify new firms by locating the first year their identifier appears in the data and, using the data on individuals, we identify the owners of such firms and their nationality.

We track over 100,000 new firms during the period 2002-2007. Although data are available from 1985 to 2009, we start in 2002 because information about individual’s nationality is available only from this year. We stop in 2007 because we define firm exit as an absence of at least two consecutive years from the data. More than 2000 new firms have foreigners among their owners. During our observation period, the share of foreign entrepreneurs operating in our host country increased from around 1% to near 2.5%. These figures are consistent with an higher propensity of foreigners to become employers when compared to natives (OECD, 2010) and with an increase in the entrepreneurial activities of foreigners in Portugal. Foreign entrepreneurs in our sample come from 41 different countries as shown in Figure 1. Some of these firms may have more than one owner, and the number of entrepreneurs from each country may be higher than the number of firms from that country.

[Insert Figure 1 here]

**Dependent Variable and Estimation Model**

Our dependent variable is a dummy variable that takes the value 1 if the firm exits and 0 otherwise. Surviving firms, of course, appear several years in the dataset. Firms are included in the dataset as many as they are in the data, each observation being identified by the age it refers to. This organization of the data allows us to employ the familiar logit binary choice model with the desirable properties of a duration model (see Cameron and Trivedi, 1995).

**Independent Variables**

We define a firm as foreign if it has one foreign owner, at least. Our variable Foreign Owners is thus a dummy variable taking the value 1 for such firms and 0 otherwise. A more stringent definition would define as foreign only those firms for which all owners were foreign. This alternative would rule out firms with
both foreign and domestic owners, which may also be subject to the consequences of foreignness. We also used this more restrictive definition. All our results apply and are even more pronounced when we use such an alternative definition.

Our measure of experience is the number of years of experience in the host country labor market, before the individual creates a particular firm. As our data starts in 1985, we were able to trace participation in the labor market since that date. Our proxy is a lower bound to the actual experience in the host country on two dimensions. First, we cannot measure with great precision lengths of stay that are very long. Still we will be able to measure accurately experience up to 17 years (firms created in 2002 by persons that were already in the files in 1985). Furthermore, because the data includes information on the date each person started working in the firm that employs him or her, if someone that is in the files in 1985 started working in that firm earlier, we will be able to account for that experience also. We enter experience in the regressions in ways that minimize the effect of this imprecision. In addition to entering experience directly we also use the log of experience in the regressions and experience classes. Second, we will miss the country’s experience obtained from being in the country but not in the labor market. We would like to know this because, for example, foreign individuals who spend their childhood in the host country may get better acquainted with the habits of the country and be viewed as more legitimate. Evidence from previous studies indicates that those immigrants who obtain additional education in the host country (Friedberg, 2000) and those who are fluent in host country language (Chiswick and Miller, 2001) earn more than those who do not. Although we do not have information with this level of detail, the number of years a particular individual is in our data approximates the time that individual had to engage in activities that may help to learn about how the host environment works. At this point, it should be reminded that the fact that our experience variable is measured with error biases the estimated coefficient towards zero. If we still find an effect, then the true effect of experience is likely to be greater than the one reported.

The level of economic development of entrepreneurs’ home country is measured by the average of owners’ home countries’ GDP per capita in a given year. GDP per capita data are in constant prices of 2000 with purchasing power parity and were collected from the United Nations World Development Indicators Database. This variable is commonly used by researchers (e.g. Tsang and Tip, 2007) and organizations (e.g. United Nations) to measure the level of economic development of countries.
In line with previous literature, we consider the economic and political institutions as our relevant formal institutions and national culture as our informal institutional component (e.g. Salomon and Wu, 2012). We measure political distance as the average political distance from each entrepreneur’s home country relative to Portugal, using data obtained from Berry et al. (2010), which combine five political indicator variables. The five components of this index are: 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 trade block. Governments with low levels of institutional constraints, low levels of democracy and owning high proportions of property rights, often enjoy low credibility and, as a consequence, foreign entrants perceive a higher political instability in countries ruled by such governments (Murtha and Lenway, 1994; Henisz, 2000). High political uncertainty leads to policies that are more likely to change arbitrarily and to a country’s context that is more difficult to predict. Consequently, it is more difficult for foreigners to adapt which may negatively affect their performance (Knack and Keeferm 1995). Existing commercial relationships between countries may reflect close political relationships that are expected to encourage the exchange of information. Therefore, firms from countries with commercial ties with the host country may have greater knowledge about the local environment (Brewer, 2007).

Cultural distance is measured as the average cultural distance from each entrepreneur’s home country relative to Portugal. For each country we compute the corresponding figure for cultural distance using the Kogut and Singh Index (Kogut and Singh, 1988). We use this index rather than data provided by Berry et al. (2010) because their dataset does not include a cultural distance measure for Portugal. Previous studies have used five dimensions to measure cultural distance (see for example Tihany, Griffith and Russell, 2005): power distance, uncertainty avoidance, individualism, masculinity and long term orientation (Hofstede, 2001). However, a measure for long term orientation is available only for a small number of countries. Therefore, following Kogut and Singh (1988) we use the other four dimensions only: power distance, uncertainty avoidance, individualism and masculinity. This approach to measure cultural distance has been widely used (e.g. Shenkar, 2001; Brouthers and Brouthers, 2001).

The cultural distance index is defined as follows.

\[
CD_j = \sum_{i=1}^{n} \left\{ \frac{(I_{ij} - I_{ip})^2}{V_i} \right\} / n
\]
where $n$ stands for the number of dimensions included, $l_{ij}$ is the distance score for the $i$th dimension and $j$th country, $V_i$ is the variance of the score of $i$th dimension, $P$ stands for Portugal and $CD_j$ is the national distance between the $j$th country and Portugal.

**Control Variables**

We control for factors related to characteristics of entrepreneurs, firms and industry that were found to affect firm survival.

Entrepreneurs’ human capital has found to determine their survival (Bates, 1990; Gimeno et al., 1997) and thus we control for such effects using entrepreneurs’ schooling, measured by the average number of years of schooling of all owners in a firm. The second characteristic we include is entrepreneurs’ age which is calculated averaging the ages of all owners in each firm. Older entrepreneurs are less likely than younger ones to find better outside options (Van Praag, 2003). As a result older entrepreneurs are found to be more willing than younger ones to accept lower returns and still continue in business (Gimeno et al., 1997). We include also a quadratic term for entrepreneurs’ age to account for retirement age (Van Praag, 2003) and for a possible non-monotonic relationship with self-employment earnings (Hamilton, 2000). We control for gender with a binary variable assuming the value 1 if a firm has at least one male owner. We chose this measure in order not to exclude firms with both male and female owners. Firms owned by women have been found to be smaller, have lower growth (Fischer et al., 1993) and lower survival rates than their male counterparts (Boden and Nucci, 2000) although Robb and Watson (2012) have found that after controlling for relevant firm, industry, and entrepreneur characteristics no difference between male and female entrepreneurs regarding closure and performance subsist.

At the firm level we control for firm size, age and number of owners. Firm size has been found to correlate with firm survival (e.g. Gimeno et al., 1997; Mata, Portugal and Guimarães, 1995). Our measure is the number of persons employed by the firm. Age was controlled for with a set of dummies. Our observations are concentrated in the earlier years of firms’ lives and thus, in line with previous findings (Mata and Portugal, 1994; Mitchell, 1994), we expect that the probability of firm exit decreases as firms age. Third, we control for the number of owners in each firm, computed by the sum of all persons classified as owner in a firm. Having several owners may indicate that firms are more able to gather resources and therefore to have lower exit rates (Cressy, 1996).
The survival of firms also depends on the conditions in the industry in which entry is attempted. We include the Herfindahl index of employment concentration as a proxy to the degree of competition. Market competition is found to determine firm exit, although results concerning the signal of this effect are not consensual (Mata and Portugal, 1994; Romanelli, 1989), in particular in the case of foreign firms (Li, 1995; Mitchell et al., 1994). There is also evidence that the extent of entry in a market is a predictor of the exit rates in that market (Siegfried and Evans, 1994). In particular, the survival of foreign entrants is found to be negatively affected by the entry of new foreign firms (Shaver, 1995). We measure entry by the share of employment in new firms in the total employment in the industry. We also included industry growth calculated as the share of new employment in the total employment in an industry, as fast growing industries are capable of accommodate more new firms, (Mata and Portugal 1994), an effect that has also been found to hold for foreign firms (Shaver, 1995). Under the assumption that foreign firms face a liability vis-à-vis domestic ones, a location with a higher share of foreign firms may result in less competitive pressures (Zaheer and Mosakowski, 1997). However, the presence of a higher share of foreign firms may indicate that foreigners know how to successfully operate in the host market and thus leading to higher levels of competition (Mitchell et al., 1994). Therefore, we include foreign presence measured by the share of employment in foreign owned firms in the total employment. A firm is classified as foreign if more than fifty percent of its equity is owned by foreigners.

Table 1 displays the average values of the independent variables for samples of domestic firms and firms with foreign entrepreneurs as well as the corresponding standard deviations. The table shows that while the average age is quite similar for domestic and foreign entrepreneurs, foreigners have a quite lower average experience in the host country labor market. Foreign entrepreneurs have a slightly larger number of years of schooling than domestic ones. Foreign entrepreneurs come from countries which, on average, have GDPs that are close to that or Portugal, but there is wide variation in the GDPs of their home countries. With the exception of China, the nationalities that appear at the top of Figure 1 are either European Union or Portuguese speaking countries.

[Insert Table 1 here]

Sample correlations between the independent variables are show in Table 2. Although most correlation coefficients are low, correlations between the variables measuring institutional distance are high,
suggesting concerns with multicollinearity. Therefore, we calculated the variance inflation factor (VIF), which indicates the degree to which each independent variable is explained by the other independent variables. The maximum VIF score regarding variables measuring institutional distance is 3.71 which is below the suggested cut-off point of 10 (Besley, Kuh, and Welsch, 1980).

[Insert Table 2 here]

4. Results

The results of our first regressions are reported in Table 2. The first column reports the results of the estimation of our stacked logit model assuming common coefficient for domestic and foreign firms and including the dummy variable that indicates whether the firms has a foreign entrepreneur or not. Columns 2 and 3 report the result of estimating a model where we allow different effects of the covariates upon the survival of the two types of firms.

The foreign dummy in column 1 is positive and clearly significant, indicating that firms which are owned by foreigners are clearly more likely to exit. The coefficient estimate 0.391 is very close to that which was obtained in a model with no other covariates (0.373). This coefficient cannot be directly interpreted, since we are using a logit model, but evaluated at the means of all the covariates, this estimate implies that firms for which at least one of the owners is a foreigner have a probability of exit which is 48% percent higher than those which are owned only by domestic entrepreneurs. The same result applies if we use a more stringent definition of foreign firm, consisting in defining as foreign only those firms for which all owners are foreigners (the estimated coefficient is 0.401, implying an increase of 49% in the probability of exit compared to local firms).

The effects of personal characteristics of the entrepreneurs are line with our expectations. Education increases the likelihood of exit up to a certain level and decreases it after that point, which is estimated to be at eight years of education, which is close to the average in our sample. The effect of age is also curvilinear, although with the opposite signs and minimum exit being achieved at the age of 44. The final demographic characteristic that affects exit is gender, with males being less likely to exit. As to firm characteristics, larger firms and firms with a larger number of owners involved are less likely to exit. Industry characteristics also matter, as industry dummies are jointly significant ($\chi^2(51)=744.14$, $p<0.0001$).
As we have seen previously, there are no major differences between the average characteristics of our two samples of domestic and foreign firms, except with respect to the experience in the host country. Yet, it is plausible that the characteristics of entrepreneurs, firms, and industries exert different effects upon the survival of firms owned by foreigners and local entrepreneurs. This is likely to be particularly relevant in what experience with the local labor market is concerned. Most domestic entrepreneurs have lived in the country for long, possibly all their lives. Foreign entrepreneurs, in contrast, may suffer from a liability of foreignness because of their more limited experience with the host country. The number of years of experience in the local labor market is a proxy for the experience in the country and entrepreneurs which have been in the country for longer have a lower liability of foreignness and are less likely to exit. To allow for individual characteristics to have different effects upon exit by foreign and domestic entrepreneurs we included interactions between dummies for foreign and for domestic owners and each one of the variables in the regression. The results of this regression are reported in Columns (2) and (3) of Table 3. In these columns we report the magnitude of the coefficients associated to each variable, not the base effect plus the interaction effect. The last column of Table 3 reports the statistics for the equality of coefficients for domestic and foreign firms.

[Insert Table 3 here]

The corresponding statistic for host country labor market experience reveals that the effect of this variable on domestic firms is statistically different from the one in firms with foreign entrepreneurs. After taking age and education into account, labor market experience has little impact for exit of firm owned by domestic entrepreneurs, but it has a considerable impact upon the corresponding foreign firms. Therefore, Hypothesis 2 receives support suggesting that in a domestic setting there is little need for adaptation while in a foreign environment adaptation plays an important role. Other functional forms, reported in Table 3, produce the same qualitative results. The specific estimate of the increase in survival is 19% considering the specification with the logarithm of experience, 18% for the one with experience and 26% for that with experience classes. Our estimates show that the probabilities of exit of firms with at least one foreign entrepreneur tend to become similar to those of firms owned by domestic entrepreneurs. In specifications considering experience and experience classes it can take up to 15 years before the exit rates confronting firms created by foreigners are identical to those of local entrepreneurs.
Our hypotheses about the effect of GDP in the entrepreneur’s home country are competing hypotheses: hypothesis 3a predicts that entrepreneurs coming from wealthier countries would exit more, as their opportunity costs of being in the country are higher, while hypothesis 3b predicts that they would exit less because they are less cash constrained. Our results support Hypothesis 3b, as we find that the effect of GDP is to decrease exit.

The effect of most of the remaining variables is not significantly different between foreign and domestic entrepreneurs. The most significant exceptions are gender and foreign presence. While local males are less likely to have their firms closed, the opposite happens to foreigners. A possible explanation for this unexpected result lies in the belief that male immigrants have a higher geographic mobility than female immigrants and thus tend to have a higher propensity to outmigrate (Lam, 1994). This result holds if we control for gender with a dummy variable equal to 1 if all owners are male.

In all regressions, we controlled for the age of firms using a set of dummies that are not reported in Table 3. Instead we calculated the exit probabilities of two hypothetical firms (one foreign and one domestic) in which firm and entrepreneurs would maintain the same characteristics (the sample's average) during firms’ lifetime and report these probabilities in Table 4.

We find no significant difference between domestic firms and firms with foreign entrepreneurs regarding the impact of firm age ($\chi^2(5) = 2.84, p=0.7242$). Nevertheless, we are able to reject the hypothesis of constant exit rates for domestic firms ($\chi^2(4) = 258.88, p<0.0001$) but not for firms with foreign entrepreneurs ($\chi^2(4) = 5.21, p=0.2666$). We are also not able to reject the hypothesis that the difference between the effect of firm age for both types of firms is constant ($\chi^2(4) = 2.84, p=0.5854$). These findings are consistent with results by Mata and Freitas (2012) suggesting that, in the first years of firms’ lives, domestic and foreign exit tend to be close, with domestic exit decreasing in these earliest years.

To test Hypotheses 4 we augmented our previous specification with the institutional distance variables. As seen before, correlations between these institutional distance variables are high and the individual effect of each distance variable is difficult to appraise. We estimated alternative specifications
using different combinations of these variables. Results of such estimations are displayed in Table 4 and are very robust across these alternative specifications. Table 4 contains only the estimates for the effects of these institutional distances, but regressions included all the variables that were included in the regressions whose results were reported in Table 3. Results for these variables remain qualitatively the same.

[Insert Table 6 here]

Columns (1) to (3) report the results of adding a single variable to our benchmark regression. Coefficients are negative for all variables, and are significant for all with the exception of Cultural Distance. This indicates that firms are less likely to exit as distance (be it cultural, political, or economic) between entrepreneurs’ home country and Portugal increase and thus support hypothesis 4b. The remaining columns of Table 4 report regressions with different combinations of these variables. The very high collinearity between these variables leads to significance levels that vary somewhat with the inclusion of different variables. Cultural distance is highly correlated with GDPpc and does not achieve significance, but political distance maintains its significance in all regressions.

The coefficient on economic distance is significant in most regressions, and the estimate of the effect of GDP in the home country also remains stable. This may be somewhat surprising, given that GDP in the home country is also included in the regression, and economic distance also includes a measure of the distance between GDP in the host country and the entrepreneur’s home country. There are two differences in the way GDP in the entrepreneur’s home country is measured in the two variables. First, in the economic distance indicator, GDP is one of several measures. Second, in the economic distance indicator, it is the distance between the GDP in two countries that matter, that the effect is posited to be similar for a person coming from a country that has a GDP that is one thousand dollars higher than that of Portugal and for a person coming from a country that has a GDP that is one thousand dollars lower. In our GDP measure, we assume that the effect has a monotonic effect, irrespective of GDP being higher or lower than in Portugal.

It is, of course, possible that the effect of the distance in GDP is the same no matter whether GDP if the home country is higher or lower. To test this, we run another regression where GDP is split in two variables: one that is identical to GDP, but only for those observations for which GDP is higher than in Portugal and zero otherwise and another with GDP, for those observations for which GDP is lower than in Portugal and zero otherwise. This allows that effect of GDP to be different for levels above and below that of
GDP in Portugal. By performing tests on the estimated coefficients, we can conclude what kind of effect GDP has. We test whether the two coefficients are identical and whether they are symmetrical. Finding that the two are symmetrical would lend support to the hypothesis that it is GDP distance that matters, finding that the two are identical would support the hypothesis that it is the level of GDP that matters.

The results indicate that the effect of GDPpc is an effect of levels rather than of distance. First, both coefficients are negative whereas if the effect was symmetrical the two coefficients should be oppositely signed. The hypothesis of symmetry is rejected ($\chi^2 (1)=3.06, p =0.0804$), while the hypothesis of identical coefficients is not ($\chi^2 (1)=0.18, p =0.6751$). Therefore, our findings suggest that, in what developments levels are concern is not similarity to the host country that matters, but the amount of resources that foreign entrepreneurs can get access to. An important constraint entrepreneurial firms face is a restricted resource base, in particular when compared to larger competitors (Jarillo, 1989). Irrespective of the country of origin of the entrepreneur being more or less developed than Portugal, the higher its economic development the lower the likelihood of firm exit.

5. Conclusion

Little attention has been given in the field of entrepreneurship to the presence of foreign entrepreneurs and to the implications that foreignness of the founding entrepreneur exerts on the survival of entrepreneurial firms. In contrast, studies in the international business literature have indicated that foreign firms suffer from a liability of foreignness, which puts them in a disadvantage vis a vis their domestic counterparts. Multinational firms, that are typically the focus of international business scholars, possess advantages that are related to their superior knowledge base and that may compensate for the effect of the liabilities. The net effect of foreignness for these firms may not be clear. However, while such advantages are less likely to be present in the case of entrepreneurial firms that are created in foreign countries, the liabilities of foreignness are still likely to hold.

We study the performance of recently created firms and compare the survival of firms that were created by local entrepreneurs and by foreign ones. We find that, after controlling for characteristics of the entrepreneurs, firms and industries, firms created by foreigners are 46% more likely to exit than comparable firms created by locals. Two reasons why foreigners may be disadvantaged relatively to natives is that may be less familiar with the local environment and may suffer from a lack of legitimacy at the eyes of local
economic agents. Experience in the country is likely to reduce these liabilities of foreignness, because individuals learn about the host economy and get more accepted by locals. We find that the disadvantage of foreigners is clearly reduced for foreigners that have been for longer in the host country.

The consequences of foreignness are not independent from the country of origin of the entrepreneur. First, firms created by those that come from wealthier countries are more likely to survive, a fact that may be related to the fact that these individuals are more likely to have access to greater pools or resources and likely to be less severely cash constrained than those coming from poorer countries. We also find that survival is related to the distance between the institutional environments in home and host countries. While this distance may create additional hurdles to foreign entrepreneurs, they may also create opportunities which are more likely to be perceived if individuals come from countries which are quite different from the host country than if they come from countries which are rather similar. Our findings indicate that foreigners coming from institutionally distant countries are less likely to close their firms than those coming from countries which are relatively similar.

Our results have relevant implications for individuals considering entering entrepreneurship in foreign countries and for policy-makers. High income countries are typically attractive for immigrants (Harris and Todaro, 1970). This holds for those seeking jobs as employees because wages are higher in such countries, but also for those looking for a place to start a business, because purchasing power of the potential clients is higher. The finding that the survival of firms is substantially lower if the entrepreneur comes from a low income country suggests that these entrepreneurs may lack resources that are critical for the survival of their initiatives. This suggests that if one individual is considering different countries where to emigrate and start a firm, he/she may be better off by choosing a low income country. If one is already in a foreign country and is considering starting his/her own business, he/she should be particularly careful in evaluating whether he/she has access to the relevant resources required for running a business. In addition, it has been shown in other contexts that foreign firms may improve their performance by actively seeking to learn about their host country (Petersen and Pedersen, 2002), and foreign entrepreneurs should consider this actively learning strategy as well. This may be a strategy with a particularly high payoff if one comes from a country that is thought to be similar. Similarity may create a false sense of comfort and may hinder learning about specificities of the host country. Failing to learn about the host country may lead to failure. Entrepreneurs whose country of origin is institutionally more distant from the host country may also be at advantage in
identifying opportunities missed by natives or by those that originate from countries that are institutionally more similar. Policy-makers may find it useful to tailor the support provided to new businesses when the promoters are foreigners, in particular by providing training that helps potential entrepreneurs to learn about the host country.
6. References


Cameron, C. and Trivedi P 2005 *Microeconometrics: Methods and Applications*, Cambridge University Press


Deephouse D .1999. To be different, or to be the same? It's a question (and theory) of strategic balance. *Strategic Management Journal* 20: 147-166.


Figures and Tables

Figure 1. Entrepreneurs and Firms by country of origin
Table 1. Comparison of Samples

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<td>-2.068***</td>
<td>-0.160***</td>
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<td>0.267***</td>
<td>0.384*</td>
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<td>-0.167***</td>
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<td>-0.160***</td>
<td>0.169*</td>
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Regressions include industry dummies and firm age dummies
Standard errors in parentheses
* p<0.10  ** p<0.05  *** p<0.001

▶ Test on the equality of coefficients in regressions in columns 2.
Table 4. Determinants of Firm Exit: Host Country Experience

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<td>(0.121)</td>
<td>(0.091)</td>
<td>(0.121)</td>
</tr>
<tr>
<td>Log Likelihood</td>
<td>-118098.30</td>
<td>-118097.52</td>
<td>-118081.23</td>
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<tr>
<td>N</td>
<td>255834</td>
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</tbody>
</table>

Notes:
Regressions include industry dummies and firm age dummies.
Standard errors in parentheses
*p<0.10  ** p<0.05  *** p<0.001 (two tailed tests)
<table>
<thead>
<tr>
<th>Firm Age</th>
<th>Domestic</th>
<th>Foreign</th>
<th>$\chi^2$ Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.210</td>
<td>0.287</td>
<td>58.72</td>
</tr>
<tr>
<td>2</td>
<td>0.174</td>
<td>0.229</td>
<td>18.23</td>
</tr>
<tr>
<td>3</td>
<td>0.151</td>
<td>0.211</td>
<td>14.35</td>
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<tr>
<td>4</td>
<td>0.139</td>
<td>0.172</td>
<td>2.89</td>
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<td>5</td>
<td>0.136</td>
<td>0.213</td>
<td>8.09</td>
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<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Cultural Distance / 100</td>
<td>-0.603***</td>
<td>-0.215</td>
<td>-0.060</td>
</tr>
<tr>
<td></td>
<td>(0.167)</td>
<td>(0.236)</td>
<td>(0.245)</td>
</tr>
<tr>
<td>Political Distance / 1000</td>
<td>-0.109***</td>
<td>-0.106**</td>
<td>-0.094**</td>
</tr>
<tr>
<td></td>
<td>(0.042)</td>
<td>(0.043)</td>
<td>(0.043)</td>
</tr>
<tr>
<td>Economic Distance / 10</td>
<td>-0.298**</td>
<td>-0.282*</td>
<td>-0.234*</td>
</tr>
<tr>
<td></td>
<td>(0.141)</td>
<td>(0.146)</td>
<td>(0.142)</td>
</tr>
<tr>
<td>Owners' Home Country GDPpc/10000</td>
<td>-0.125**</td>
<td>-0.198***</td>
<td>-0.143***</td>
</tr>
<tr>
<td></td>
<td>(0.054)</td>
<td>(0.041)</td>
<td>(0.039)</td>
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<tr>
<td>Owners' Home Country GDPpc Above</td>
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<tr>
<td>Owners' Home Country GDPpc Below</td>
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<td>Log Likelihood</td>
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</tbody>
</table>

Notes:
- Regressions include control variables.
- Standard errors in parentheses
- * p<0.10  ** p<0.05  *** p<0.001 (two tailed tests)