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Refugee Entrepreneurship: The Case of Venezuelans in Colombia†

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As of January 2023, 7.1 million Venezuelans have fled their home country, turning into one of the largest displaced populations in the world (Regional Inter-agency Coordination Platform 2021). This paper explores entrepreneurship in Colombia during this period to identify stylized basic facts on firm creation by foreigners in the country—many of whom are Venezuelan citizens who arrived in Colombia fleeing their country in mass—as compared to firms created by locals.[1]

Using the entire business registry of Colombia, the largest host of Venezuelan immigrants and refugees, we characterize two distinct aspects of firms owned by foreigners versus firms owned by Colombian citizens: their level of assets per employee and their survival. While we cannot identify Venezuelan owners from the subset of foreigner-owned companies in Colombia, we are confident that by limiting our analysis to firms owned by foreigners, we are capturing informative patterns about the broader trends that Venezuelan business owners face (more on this below).

We present two main results. First, firms owned by foreigners tend to be 10 to 20 percent more capitalized when founded, as compared to firms owned by locals within the same four-digit industry code, geographic location, and year of registration (as measured by reported firm's assets per employee). Second, while more intensive in capital, these firms owned by foreigners are just as likely as firms owned by locals to survive the first two and three years. We discuss the implications of these findings in our conclusion.

I. Data Sources

In this paper, we focus on the evolution of foreigners' entrepreneurial ventures in Colombia from 2015 to 2021. Our main source of data is the Registro Unico Empresarial y Social (RUES), representing the entire Colombian business registry. The data include the universe of all firms created in Colombia since they were registered the first time as well as information on their yearly registration after that.

The RUES was obtained by us directly from Confecámaras ("the Federation of Chambers of Commerce of Colombia") after a formal petition. It also includes annual information about firms, such as self-reported assets and employment.

Our sample contains about 2 million firms, all created between 2015 and 2021, implying an average rate of firm creation of about 285,000 firms per year. We merge this sample to a version of the RUES from Colombia's open data portal (https://www.datos.gov.co/) that includes details on the type of identification provided by the owners of sole proprietorship firms, as well as by the legal representatives of firms registered as *Sociedad*, akin to a limited liability company in the United States.[2]

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[1] While not all Venezuelan migrants have been legally awarded the refugee status in their hosting countries, they are widely referred to as refugees or "refugee-like" immigrants in policy circles and the international community at large. In part, this reflects the expanded definition of the Cartagena Declaration signed by countries in the region of Latin America and the Caribbean in 1984, which expands the definition of refugee to those fleeing because of massive human rights violations and disruptions to public order.

[2] About 1.5 percent of the observations of the RUES are duplicates. We decided to drop duplicates, keeping the copy corresponding to the earliest year of firm creation, when there is conflict in that variable.

In the sample, the most common type of identification is the *cédula de ciudadanía*, the national identification document of Colombian citizens. Yet, there are a significant number of firms for which the type of identification of their legal representatives is a passport or *cédula de extranjería*, the alien resident identification document, implying that these individuals are foreigners.[3]

With this distinction between firms, our focus is on foreign-owned firms as our best approximation to the entrepreneurial activity of Venezuelans. We believe that this is a good approximation, particularly in the most recent years, as most foreigners in Colombia are Venezuelans. In fact, according to the latest Colombian population and household census done in 2018 by the Departamento Administrativo Nacional de Estadistica (Colombia's statistical agency), nearly 87 percent of all foreigners in the country were Venezuelans at the time, accounting for about 840,000 people. Since then, another million Venezuelans had settled in Colombia, making their relative share of the foreign population even higher, likely to levels above 90 percent.

II. Venezuelan Refugees in Colombia

Around 2 million Venezuelan immigrants live in Colombia today, representing 3.6 percent of Colombia's population. Most of these immigrants arrived after 2015 as a result of the political, economic, and humanitarian crises in Venezuela. The top panel of Figure 1 shows that the percentage of Venezuelans in the population grew from just over 0 in 2015 to nearly 4 percent in 2021.

An important way that immigrants and refugees can participate in economic activity is not as employees but as firm owners (and, as such, employers). After all, immigrating shares some characteristics with becoming an entrepreneur, such as the preference for risk taking. Accordingly, in the United States, immigrants tend to be entrepreneurs at disproportionate rates (e.g., Kerr and Kerr 2020; Azoulay et al. 2022). As Bahar, Parsons, and Vézina (2022) also document in their review of the literature, refugees show higher rates of entrepreneurship in places like Australia and the United Kingdom as compared to natives.

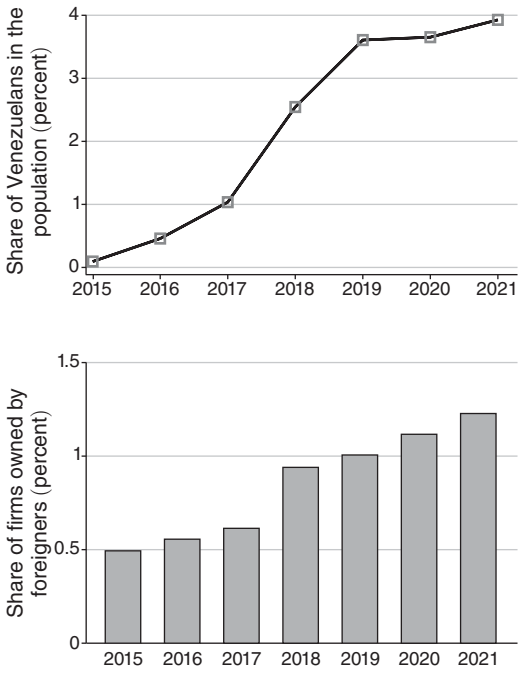

FIGURE 1. VENEZUELANS AND FOREIGN-OWNED FORMAL FIRMS IN COLOMBIA (2015–2021)

Notes: The top panel plots the proportion of Venezuelans in the Colombian population each year between 2015 and 2021. The bottom panel plots the proportion of firms owned by foreigners out of all firms in the Colombian business registry from 2015 to 2021.

Sources: Colombian Household Surveys (GEIH), RUES, and authors' calculations

This significant inflow to Colombia presents an opportunity to better understand the formation of firms created by refugees and refugee-like individuals and how they differ from firms owned by locals, through several indicators. In fact, there is substantial growth in firms created by foreigners in Colombia. The bottom panel of Figure 1 shows that the share of firms owned by a foreigner more than doubled from being about 0.5 percent in 2015 to about 1.25 percent in 2021, consistent with the massive inflow of Venezuelans into the economy during those years.

[3] For just a few dozen observations out of the two million data points, we observe an identification type that corresponds to the special visas issued by the Colombian government to Venezuelan citizens, such as the Permiso Especial de Permanencia and the Permiso Temporal de Permanencia. We do not study this subsample due to its small size.

III. Capital Intensity and Survival Rates of Refugee Firms

Immigrants and refugees, particularly in developing countries, could face important hurdles such as lack of access to credit, limited social networks (useful to compensate poorly working institutions), and lack of understanding of local markets.[4]

As such, a deeper analysis on the characteristics of ventures created by refugees and refugee-like immigrants can shed light on how these hurdles affect firm formation for this population. In this section we focus on two questions regarding firm performance comparing foreign-owned firms to firms owned by locals in Colombia: how do they differ in terms of capital intensiveness at the time of creation, and how do they differ in terms of survival rates?

To do this, using our data, we estimate the following specification:

$$Y_{i,s,d,t} = \beta_f \cdot Foreign_i + \beta_s\, Sociedad_i + \Phi_{s,d,t} + \varepsilon_{i,s,d,t},$$

where i indexes the firm, s indexes the economic activity (using the four-digit International Standard Industrial Classification code), d indexes the department (state) where the firm is located, and t indexes the year where the firm is created.

The left-hand side, $Y_{i,s,d,t}$, alternates between reported assets per employee (as a measure of capital intensiveness) and a binary measure tracking survival two and three years after initial registration.

$Foreign_i$ is a dummy variable that takes the value of 1 if the firm is registered to a foreigner and 0 otherwise (i.e., is registered to a Colombian citizen). $Sociedad_i$ is a dummy variable that is 1 if that firm is registered as a *Sociedad* (as opposed to a sole proprietorship), which are typically larger firms. Thus, we allow for a different intercept. In some specifications, we also interact between the two variables to understand any differential patterns on *Sociedad* firms owned by foreigners.

Importantly, every estimator has a sector-department-year fixed effect (denoted by $\Phi_{s,d,t}$), implying that we are comparing only firms that belong to the same (four-digit) sector, located in the same department, for the same year of formation.

A. *Assets per Employee*

We estimate the above specification using capital per employee, transformed using the inverse hyperbolic sine, as the dependent variable.[5]

Columns 1 and 2 in Table 1 present point estimates of β_f using capital intensity (transformed using the inverse hyperbolic sine) as the dependent variable. Note that for these estimations we are only keeping firms that were created between 2019 and 2021 since it was during these years that it became mandatory for firms to report employment and other indicators when registering firms (CONPES 2019). Our results, however, are qualitatively similar when including all years.

The results in column 1 reveal that firms owned by foreigners are nearly 20 percent more capital intensive than firms owned by Colombian citizens. The results also show, as expected, that *Sociedad* firms are much more capital intensive than sole proprietorship firms (more than double). Column 2 shows that once we allow for an interaction term between foreign ownership and type of firm (*Sociedad* or sole proprietorship), firms owned by foreigners are still 8.6 percent more capital intensive, with *Sociedad* firms owned by foreigners about 22 percent more

[4] A recent study by Bahar, Cowgill, and Guzman (2022) shows that undocumented Venezuelan immigrants who receive a visa increase their rates of entrepreneurship by a factor of ten, hinting that having access to formal markets, as well as more certainty about the length of their stay, is an important factor determining immigrant entrepreneurial activity.

[5] About half of the sample of firms being born between 2019 and 2021 report having zero employees. This is consistent with Confecámaras (2018), who find that according to social security records, a large proportion of firms in Colombia—about 65 percent by 2017—do not have employees (and thus this is not a self-reporting problem). One reason is that these firms are one-employee firms, typically with the owner being the only employee, and these owners are not counting themselves as employees when processing the firm's registration, given the nature of the question. In the results we show below, we assume that this is the case and add one to all of the employment figures for all firms (regardless on whether it was zero or not). However, this is not a critical assumption given that our results are qualitatively the same if we exclude firms with zero employment from the estimation.

TABLE 1

	asinh(K/L)	asinh(K/L)	2-yr survival	2-yr survival	3-yr survival	3-yr survival
Foreign	0.1913	0.0867	−0.0225	−0.0231	−0.0224	−0.0201
	(0.016)	(0.014)	(0.022)	(0.035)	(0.019)	(0.026)
Sociedad	1.2763	1.2714	0.1493	0.1493	0.1438	0.1439
	(0.070)	(0.070)	(0.011)	(0.011)	(0.011)	(0.011)
Foreign × Sociedad		0.2269		0.0011		−0.0036
		(0.047)		(0.028)		(0.022)
Constant	14.7422	14.7433	0.5322	0.5322	0.4183	0.4183
	(0.016)	(0.016)	(0.002)	(0.002)	(0.002)	(0.002)
Observations	940,411	940,411	1,405,598	1,405,598	1,082,459	1,082,459
R^2	0.21	0.21	0.09	0.09	0.09	0.09

Notes: The table estimates the specification above using as the dependent variable capital per worker transformed using the inverse hyperbolic sine (columns 1 and 2), a dummy indicating whether the firm survived two years after its initial registration (columns 3 and 4), and a dummy indicating three years of survival after its initial registration (columns 5 and 6). All columns include one fixed effect for every combination of four-digit industry, department, and year of registration. Standard errors reported in parentheses clustered at the departmental level.

capital intensive compared to firms owned by Colombian citizens.

Note that our results control for industry-department-year fixed effects, implying that our comparison between firms owned by foreigners and firms owned by locals is not across industries or geographies. When estimating specifications that exclude the industry or department component of the triple fixed effects, we notice in results (not reported in this paper but available upon request) that the point estimates of β_f measuring the "foreign premium" are somewhat smaller. This suggests two things. First, foreigners sort into industries that are less capital intensive and into departments where access to credit is limited (e.g., such as bordering areas that are lagging behind in a number of economic outcomes). Note, however, that the point estimates are not statistically different from each other across the different specifications that alter the inclusion of different combinations of fixed effects.

B. *Survival Rates*

We then proxy the performance of these firms by studying their survival. Columns 3 and 4 of Table 1 present results using two-year survival as the dependent variable, whereas Columns 5 and 6 present results using three-year survival.

Across the board, the results show no differential patterns in terms of survival for firms owned by foreigners (though the point estimates are negative) regardless of whether they are sole proprietorship firms or *Sociedad* firms. (The latter are more likely to survive than sole proprietorship firms, as expected, as shown in the second row of the table, but there is no differential pattern for foreign-owned firms, as shown by the interaction term.)

These results, put together, suggest an interesting stylized fact of foreign-owned firms in the context of Colombia: these foreign-owned (Venezuelan) firms, while more capitalized when founded, do not have a higher likelihood of survival than Colombian-owned and less capitalized firms within the same industry and geographic location.

Similarly to above, we also explore whether there is any type of sorting across industries or geographic regions by reestimating the specifications excluding the industry and the department component of the triple fixed effects. In results not reported in this paper (but available upon request), we find no important differences in the point estimates when excluding the industry fixed effects, but we do find that the point estimate of β_f becomes indistinguishable from zero once we allow for comparison of firms across departments. A plausible implication is that foreigners are sorting into departments where the probability of survival is larger.

IV. Discussion

Our results provided novel evidence on the capitalization and survival of firms owned by foreigners in Colombia, mostly likely to be Venezuelan immigrants and refugees. Using the full registry of formal firms in Colombia, our results show that foreign-owned firms are better capitalized and yet do not survive longer as compared to firms owned by locals.

The higher level of capitalization is consistent with well-known higher growth performance by immigrant entrepreneurs in the United States (e.g., Azoulay et al. 2022). The ability of immigrants to achieve higher capital utilization may be driven by them having better entrepreneurial talent due to selection into migration (as in Borjas 1987) or by other unobserved elements on the nature of the firms.

The null effect on survival may appear initially counterintuitive, but there are several reasons why the entrepreneurship literature documents that higher capitalization does not mechanically lead to higher survival. If these firms are using debt (including personal debt and savings), for example, higher leverage is known to be a predictor of a higher propensity to exit (Zingales 1998). Likewise, more ambitious firms are also known to not only grow faster but also fail faster (Nanda and Rhodes-Kropf 2013), due to them taking riskier projects. Indeed, the immigrants themselves may inherently be taking on riskier projects by the very nature of not being local to the region, requiring them to be more productive otherwise simply to achieve the same level of survival (Dahl and Sorenson 2012).

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