

Entrepreneurship Dynamics: Entry Routes, Business-Owner's Persistence and Exit Modes

PhD Workshop in Economics, U. Minho

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Motivation (1/2)

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 - 2 Rarely distinguishing between other entry routes than *start-up* - e.g., entry by acquisition - or between different groups of business-owners;
 - 3 Strongly focused on individual-level characteristics and, more recently, on previous employer's characteristics, still neglecting other possible determinants - e.g., past experiences in the labor market.

Motivation (2/2)

However, many policies have focused on the necessity to "produce" more entrepreneurs and not so much on the necessity to preserve the stock of entrepreneurs. Regarding existing research on Business-Owner's (BO's) *persistence* and *exit*:

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- ② Most of the literature on entrepreneurial survival has been equating entrepreneur's exit to firm closure, rarely distinguishing among different exit modes;
- ③ No substantial knowledge, so far, about how entry modes impact on post-entry persistence and exit decisions.

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- ❹ **evaluating how entry routes influence exit modes.**

Data

- Quadros de Pessoal (QP) - matched employer-employee dataset from the Portuguese Ministry of Employment.
- QP covers all firms in the private sector employing at least one wage earner.
- All firms, establishments and workers entering QP files have a unique ID number.
- Data available for the period 1986-2009.
- Entrepreneur definition - *Business-Owner* of the firm (the "employer") - QP does not cover self-employed individuals.

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Identifying transitions into entrepreneurship

- By working with raw data files (1986-2009), we tracked each individual in QP files to identify the first time s/he appears as BO.
 - **Never BOs** - individuals who are never registered as BOs during the whole period - *control group*
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 - A total of 206,367 transitions were identified (1992-2007).

Identifying BO's exit and firm's exit

- To identify BO's exit - we have required an absence of the BO from the firm (or from the BO status) ≥ 2 consecutive years
- To identify firm's exit - a firm is classified as an exiting firm in year t if it is present in QP files in year $t - 1$, but absent in t and in any of the subsequent years.

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- Two alternative exit modes: *exit by dissolution* (firm closure) versus *exit by ownership transfer* (the BO leaves the firm, or the BO status in the firm, and the firm continues operating in the market after the BO's exit).

Empirical Strategy (1/2)

To study the choice of becoming a BO:

- Discrete choice models - in particular, *multinomial logit model*
- The outcome y_i for individual i may be one of 4 alternatives:
1) Never BO; 2) Start-up Entrepreneur; 3) Acquisition Entrepreneur; or 4) Intrapreneur.
- The probability that the outcome for individual i is alternative j , conditional on a vector of variables X_i is:

$$p_{ij} = \frac{e^{x_i' \beta_j}}{\sum_{l=1}^4 e^{x_i' \beta_l}}, j = 1, \dots, 4$$

- Vector X_i includes: 1) individual's previous experiences in the labor market as paid employee; 2) previous wage job characteristics; 3) individual-level characteristics; 4) macroeconomic environment.

Empirical Strategy (2/2)

To study the persistence of the BO in the business:

- Discrete time hazard models - in particular, *piecewise-constant cloglog model with inverse-gaussian "frailty"*
- For BO i , the probability of exit at discrete time $t_j, j = 1, 2, \dots$, given survival until t_j is:

$$h_{ij} = 1 - \exp\{-\exp[\gamma(t) + X_i'(t)\beta + \log(\varepsilon_i)]\}$$

- Vector $X_i(t)$ includes: 1) BO's entry mode; 2) individual's previous experiences in the labor market as paid employee; 3) macroeconomic environment; 4) individual-level characteristics; 5) firm-level characteristics.
- *Exits by dissolution* are distinguished from *exits by ownership transfer* through a competing risks model.

Multinomial Logit Results (1/2)

The effect of previous experiences in the labor market while paid employee:

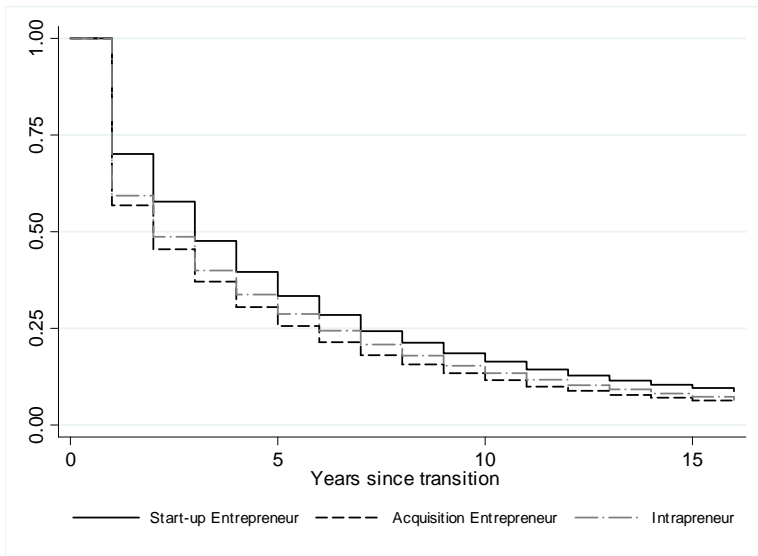
	Start-up E.	Acquisit. E.	Intrapren.
Experience in a large firm	—	—	—
Experience in a foreign firm	—	—	+
Number of different employers	+	+	—
Recent displacement*	+	+	<i>n.a.</i>

*Recent displacements were identified in QP files through the exit of workers (in $t - 1$ or $t - 2$) from a firm that either closed or suffered a downsizing ($\geq 30\%$)

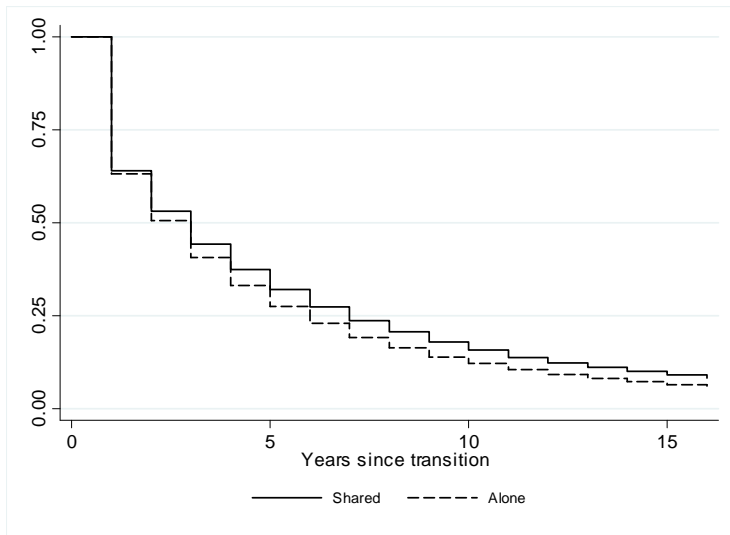
Multinomial Logit Results (2/2)

- **Macroeconomic Environment:** Start-up Entrepreneurs enter counter-cyclically (recession-push hypothesis), while other nascent BOs enter pro-cyclically (prosperity-pull hypothesis).
- **Smaller firms** spawn new BOs more often among their employees than larger firms do.
- Workers engaged in **management positions** and being **overeducated** in the previous job are more likely to become BOs.
- **Education** is also associated with a greater likelihood of transiting into some form of business-ownership.

Kaplan-Meier survivor function, by BO type



Kaplan-Meier survivor function, by ownership at entry



Empirical Results on Exit (1/3)

The impact of entry route* on exit mode:

	Exit by Dissolution	Exit by Own. Transfer
Start-up Entrepren. - Shared Own.	—	+
Acquisition Entrepren. - Alone	—	+
Acquisition Entrepren. - Shared Own.	—	+
Intrapreneur Alone - Employee Buyout	—	+
Intrapreneur Shared Own. - Partnership	—	+

*Start-up Entrepreneurs entering alone are the base category.

Empirical Results on Exit (2/3)

The impact of previous experiences in the labor market and macroeconomic conditions on exit mode:

	Exit by Dissolution	Exit by Own. Transfer
Experience in a large firm	+	+
Experience in a foreign firm	0	+
Number of different employers	+	+
Recent Displacement	—	—
Sector experience (2-digit)	—	—
Lagged Unemployment Rate	—	—
Duration dependence	Negative	U-Shaped

- Higher levels of **education** are associated with **lower dissolution hazards**, but also with **higher hazards of ownership transfer**.
- BOs of **smaller and younger firms** exit earlier by **dissolution**; BOs of **larger and older firms** tend to exit by **ownership transfer**.
- Location in **urban areas** accelerate **dissolutions**.

Main Conclusions (1/2)

Regarding entry:

- ① New entrepreneurs entering via start-up are more reactive to aggregate unemployment, entering counter-cyclically and being significantly pushed by a recent job loss - *closer to necessity-driven entrepreneurs?*

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- 1 New entrepreneurs entering via start-up are more reactive to aggregate unemployment, entering counter-cyclically and being significantly pushed by a recent job loss - *closer to necessity-driven entrepreneurs?*
- 2 Intrapreneurs and Acquisition Entrepreneurs transit under more favourable economic conditions, possibly responding also to an identified business opportunity or to a more satisfactory alternative to paid employment - *closer to opportunity-driven entrepreneurs?*
- 3 Nascent Entrepreneurs are significantly pushed by more unstable trajectories in the labor market.

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- 3 Nascent Entrepreneurs are significantly pushed by more unstable trajectories in the labor market.
- 4 Employment experiences in large-sized/foreign-owned firms discourage entrepreneurial entry.

Main Conclusions (2/2)

Regarding BO's persistence and exit:

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- 3 Those who have recently lost their job in paid employment are found to survive longer as BOs, being less likely to leave the business, whatever the exit mode.
- 4 Industry-specific experience significantly increases the persistence of the BO in the firm - learning-by-doing and the importance of informational advantages accumulated through specific knowledge.