Public Policies and Firms' Sustainability: A long-term mortality analysis of subsidized firms in rural areas

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Abstract: Studies have demonstrated that public policies to support private firms' investment have the ability to promote entrepreneurship, but the sustainability of subsidized firms has not been greatly analyzed. This paper aims to examine this dimension specifically through evaluating the mortality of subsidized firms in the long-term. The analysis focuses on a case study of the LEADER+ Programme in the Alentejo region of Portugal. To this end, we examined the activity status (active or not active) of 154 private, rural for-profit firms in Alentejo that had received a subsidy to support investment between 2002 and 2008 under the LEADER+ Programme.
The methodology is based on binary choice models in order to study the probability of these firms still being active. The explanatory variables used are characteristics of managers' strategic decisions, firm profile and regional economic environment.
Data assessment showed that the cumulative mortality rate of firms on 31st December 2013 is over 20%. Interpretation of the regression model revealed that the probability of firms' survival increases with higher investment, firm age and regional business concentration. On the other hand, the number of applications made by firms has a negative impact on their survival. These conclusions may be particularly useful for policy-makers because the study suggests that, among other factors, limiting the number of applications to a public policy to support investment by the same firm could maximize the perpetuity of its results in the long term.

Keywords: Public Policy, Firms' Sustainability, Binary choice models.
JEL *Classification*: R58, D21, C25.

Acknowledgement: the authors would like to thank Rui Veríssimo Batista (LEADER + Project Manager in Portugal) and all LAG of Alentejo for the information provided.

1. Introduction

The socio-economic sustainability of regions and countries depends on their ability to create and maintain firms and jobs. Public policies to support entrepreneurship play a vital role in more vulnerable economies, such as rural areas (Santos, 2012). Indeed, public policies are likely to influence private investment (Paunov, 2012), or even increase productivity and employment levels (Alvarez, Crespi & Cuevas, 2012). Nevertheless, assessment of their sustainability has been little explored in research.

The concept of sustainability is related to a long-term time scale and associated with efficient use of resources, in order to maintain an economic gain, with environmental and social quality (Bell & Morse, 2008:10-18). For companies, efficient use of resources is also based on rational utilization of human[1] and financial[2] resources, to ensure the firm's survival in the long run. Although public policies support companies' competitiveness, financing investment and jobs, the effect is not always the one intended. According to Bernini & Pellegrini (2011:262-264), subsidized firms tend to invest more and increase the number of employees compared to non-subsidized firms, in order to receive additional public funding. In the long term, this can affect the growth and productivity, and the subsidized company's ability to maintain its market position (Bernini & Pellegrini, 2011:264 & 2013:166).

In evaluation of public policy, "the term sustainability refers to the extent to which the results and outputs of the intervention are durable" (European Commission, 2008:43). In this sense, the assessment criteria of this dimension are related to answering questions such as, "Are the results and impacts, including institutional changes, durable over time? Will the impacts continue if there is no more public funding?" (European Commission, 2008:43). The present study focuses on what happens at the microeconomic level in the long term, based on analysis of firm mortality in the subsidized context, and is centred more precisely on the case study of LEADER Programme[3].

The present paper focuses on the 154 private for-profit firms operating in rural Portuguese region of Alentejo which received funding under the 3rd phase of the LEADER Programme[4], also called LEADER+, between 2002 and 2008. We examine the survival and mortality status of these firms on 31st December 2013 and try to answer the following questions: How many funded companies are still active? What are the determinants of survival or mortality in these companies?

The methodology is based on binary choice models, in order to study the survival behavior of subsidized firms[5], through potential explanatory variables, such as managers' strategic decisions, firm profile and characteristics, and the regional economic environment.

This research is divided into five main chapters: i) brief characterization of business mortality in Portugal and in Alentejo region, ii) theoretical and conceptual framework, with a brief literature review on the determinants of business survival and mortality; iii) description of data

[1] For example, optimal employment level.
[2] For example, balance between costs and income or between investments and additional cash-flow.
[3] The LEADER programme was created in 1991 by the European Commission. This initiative, based on an innovative methodology, with different characteristics from classical models, was designed to encourage and support entrepreneurship, stimulate innovation and motivate cooperation, by funding investment in rural areas (Santos, 2012: 70). Based on a territorial approach, the LEADER programme is built on the principle that local actors are the best qualified to detect a territory's needs and therefore outline its Local Development Strategy (European Commission, 2006). It was indeed following this premise that the concept of Local Action Groups–LAG – was born. These entities are responsible for the management of LEADER Programme funds in a given area.
[4] Currently, we are at the closure of the 4th phase of the LEADER programme. LEADER I, ran from 1991 to 1993, LEADER II from 1994 to 1999 and LEADER + from 2000 to 2006. Although LEADER + operated between 2000 and 2006, the first application approvals only began in 2002.The approval period and execution for applications submitted until 31st December 2006 was extended to 2008.
[5] And, consequently, as opposed their mortality.