

Entrepreneurship and Credit Constraints

Entrepreneurial activity is often seen by policy makers and academics as a means of making the economy grow through creative destruction, i.e. a situation where less productive firms die out and new and highly productive firms are formed. The reason most often mentioned as an obstacle for starting up new businesses is credit constraints, i.e. limited access to credit that can be used to finance start-up and sustain the success of firms that would otherwise not prosper. In Denmark there are fewer self-employed persons than in most other OECD countries, Blanchflower (2000), and only about 35% of newly started firms survive the first 5 years, cf. Jørgensen and Malchow-Møller (2007). Credit constraints could be part of the explanation.

In this project the purpose is to investigate if credit constraints influence (1) the propensity to start up (2) the size of firm at start-up (3) the growth of the firm (4) the propensity for the firm to survive. For answering these questions we will employ a very large register based data set with information about entrepreneurial activities and, crucially, information about the financial situation of the (potential) entrepreneurs. For the analysis we will exploit a credit market reform introduced in 1992 that gave access for house owners to use housing equity as collateral for non housing purposes.

The project will be based on register data for the period 1987-1996 for the entire population. We will exploit the wealth data that exist in the income-tax registers to categorize agents as likely/unlikely to be constrained based on their level of liquid asset holdings. The effect of credit constraints on entrepreneurial activities will be estimated by comparing the change in entrepreneurial activities following the reform for those potentially constrained with those not constrained. This approach has been used widely in the consumption literature; cf. Leth-Petersen (2008).

The proposed study adds to the literature on entrepreneurial activity and credit constraints in several dimensions. First, previous studies of entrepreneurial activity and the importance of credit constraints have all used wealth variables, such as lottery prizes, receipt of inheritances, or house price changes, as indicators for the lifting of credit constraints, Evans and Jovanovic (1989), Holtz-Eakin et al. (1994a,b), Lindh and Ohlsson (1996), Hurst and Lusardi (2004). Such variables, however, mix up credit constraints and wealth effects. In particular, previous studies have pointed out that entrepreneurship may be a luxury good. In our case we exploit a true shock to credit access that carries no wealth effect. Secondly, no previous study has been able to jointly include controls for entrepreneurial ability wealth and a credit shock in the analysis of effects of credit constraint. These variables are likely to be correlated, and leaving one of them out implies running the risk of confounding their separate influence on entrepreneurial activity. Danish register data contains all this information. Finally, we will make use of a data set containing information about the *entire* population. This will enable us to base the analysis on very large samples and thereby to unwind the importance of credit constraints separately for many different subgroups, for example by considering very detailed industry levels. This is likely to be crucial as entrepreneurs are known to be very heterogeneous and it is known that different types of entrepreneurs enter different industries.

The project is very policy relevant. First, it will reveal if credit constraints are likely to be an important issue for entrepreneurs. Based on this information policy makers are able to decide if they should put credit policies in place to stimulate entrepreneurship. Moreover, in the event that constraints

do influence entrepreneurial performance, the analysis will characterize those who are affected by Entrepreneurship and Credit Constraints Søren Leth-Petersen constraints and in what industries they operate. This information can be used by policy makers to target credit policies towards the groups that will benefit the most from them.

The participants in the project are assistant professor Ramana Nanda, Harvard Business School and associate professor Søren Leth-Petersen, Department of Economics, University of Copenhagen. Ramana Nanda is a specialist on empirical analysis of Entrepreneurial activity and Søren Leth-Petersen is a specialist in designing and conducting applied econometric analysis based on the Danish register data. Søren Leth-Petersen has done extensive work on consumption and savings decisions at household level, in particular the role of credit constraints, and has accumulated much expertise on the detailed wealth data.

This application concerns money for purchasing data, for research time for Søren Leth-Petersen, funds for hiring a research assistant. The analysis is to be based on a 100% sample from the Danish research data base that is made available at no costs by CAM, Centre of Applied Microeconometrics. This data set lacks the wealth data. The costs of purchasing these are 65,137 DKK. A price offer from Statistics Denmark is enclosed. The application also concerns research assistance. Setting up the data set and preparing it for estimation is generally very time consuming since for register data there are no detailed instructions on how to combine data from different registers. This is particular imminent for this project because we are going to be the very first to combine the raw wealth data from the tax registers with the research registers for analyzing entrepreneurial activities.

The project is to begin in February 2009 and to end in December 2010. The output of the project is expected to be 1-2 academic papers. All previous papers in the literature that we start out from have been published in high ranking journals. Given the unique features of the Danish data we expect to be able to make contributions at the same level.