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Funding Gaps? Access To Bank Loans By High-Tech Start-Ups

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Abstract

This paper aims to shed new light on start-up financing of new technology-based firms (NTBFs) and the existence of credit constraints that may negatively affect their activity. For this purpose, we analyze the different sources of start-up financing used by NTBFs and investigate several characteristics that may influence the extent of recourse to bank loans. In the empirical section, we consider a sample composed of 386 Italian NTBFs that operate both in manufacturing and services. We estimate double-censored tobit and bivariate tobit models so as to highlight the determinants of (i) the financial leverage, measured by the ratio of bank debt to total capital, and (ii) the amounts of personal capital and bank loans of firms at start-up, respectively. Our findings support the view that the credit market is imperfect and there exists a financing hierarchy. In fact, only a minority of firms resorts to outside financing, and especially to bank debt. In addition, the level of financial leverage is not random; it increases with an

increase of the predicted amount of firms' total initial capital, while it decreases with variables such as the number of owners and the work experience of founders that are indicative of greater personal wealth available to finance firms' start-up. Lastly, the size of the bank loans obtained by firms generally is small and it is quite insensitive to demand-side factors that instead determine the amount of personal and total capital, with the notable exception of scale economies in the industry of the start-up. In other words, in accordance with the argument that credit to NTBFs is rationed, the loan supply curve is highly inelastic, even though not perfectly so.



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