Microeconometric evidence of financing frictions and innovative activity

STELLINGEN

Accompanying the Ph.D. Thesis / Behorende bij het proefschrift

Microeconometric Evidence of Financing Frictions
And
Innovative Activity

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1) The effect on the probability to innovate of a unit change in leverage is almost constant in the absence of financial constraints, but varies with firm characteristics such as age, size, and existing leverage in the presence of those constraints.

2) Given everything else, a firm that is not financially constrained with respect to innovation is more likely not to innovate when it increases its leverage as compared to a firm that is financially constrained.

3) When intangibility of assets involved in conducting R&D is high and the intensity with which R&D can be completed is low, equity holders of the firm maximizing their claim overinvest, thus shifting the burden of risk onto the bondholders.

4) Even when the growth option related to R&D activity is more valuable than a scale expansion program that uses existing technology, since R&D activity mainly involves investment in intangible assets and technical uncertainty, the maximum level of default risk-free debt is lower for R&D as compared to a scale expansion program.

5) Given that conducting R&D involves employment of intangible assets, technical uncertainty, risk of obsolescence, and uncertainty about demand, there is potential for information asymmetry and non-verifiability. Therefore, it seems to be difficult if not infeasible to design an optimal contract to finance an entrepreneur's R&D projects.

6) Certain factors, such as reputation associated with size and age of the firm, or the firm being persistently innovative, seem to affect the availability of external funds and the financial constraints faced. As a result of this the nature of contracts with such firms will differ from those of start ups.

7) The empirical challenge in comparing the cost of external finance for R&D investment and physical investment is that the contractual agreement of two similar firms, one investing in R&D and the other in physical capital and investing the same amount, should be comparable and that data should reveal such information.

8) Each type of existing financial institution has a comparative advantage in a few among the many lending technologies; therefore, a nation's financial structure affects the feasibility and the profitability of credit to different types of borrowers.

9) It is questionable whether in India industrialization will generate sufficient and meaningful employment. Moreover given the poor food security in India, R&D in agriculture can play an important role.

10) Mr. A: . . . and Jesus drove out the money lenders from the temple!

Dr. T: Yeah, divinity's got some real problem. How can hidden information be a problem to the son of God, the all knowing, someone plagued of omniscience? Risks, premiums . . .

Mr. A: Poor God! His puppets, carved out in His own image, have gone berserk!