



INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI
SHORT ABSTRACT OF THESIS

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SHORT ABSTRACT

The need for credit has been well documented in the literature. Unlike transactions in goods and services markets, the peculiarity and speciality of credit market is that lenders exchange money today for a promise of money in the future (Ray, 1998). The possibility of default makes lending a riskier activity (Hoff and Stiglitz, 1990). Lenders accordingly employ various mechanisms to ensure repayment of loans, one of them being collateral. Poor borrowers are rationed in the formal sector due to lack of sufficient collateral and they must rely on usurious moneylenders and others to satisfy their credit demand. This paves the way for coexistence of different types of lenders catering to credit needs of different types of borrowers. Given these imperfections of an underdeveloped credit market, the present study digs deeper into different aspects of the credit market. We address four vital questions surrounding credit markets and these form the four key chapters of the PhD thesis.

First, a crucial problem in less developed and developing economies is credit rationing. In the second chapter, we build a model of strategic interaction between formal and informal lender with the assumption that lenders maximize their profits. We find that the equilibrium strategies in most of the results depend on the difference between the expected returns from risky and safe projects where the risky project has higher expected returns. There occurs segmentation of the credit market in terms of risk and wealth of borrowers. Rationing of poor safe borrowers from the credit market is inevitable when the moneylender's capacity is sufficiently small, suggesting a low income trap for them. The novelty of our study lies in that unlike the previous literature on strategic interaction that assume zero profit (Bertrand Paradox) condition,

the present study shows that zero profit is only one of the possible Nash equilibrium outcomes in the model. We also find that whenever there is any capacity constraint of the moneylender, a zero-profit outcome is never a Nash equilibrium outcome as lenders offer such contracts to borrowers at which they earn positive profits. The single crossing property is satisfied in all the results.

Second, consistent with the predictions of our theoretical model, the empirical literature suggests that land is one the most dominant forms of collateral in developing economies. However, it is observed that the landless segment also get loans. Thus, in the third chapter we examine whether ownership of other assets (physical and financial) substitute or complement land ownership in facilitating credit access for Indian households. We examine this nexus in case of formal vis-a-vis informal credit sectors. We further examine if there is any relationship between the wealth variables (land, physical assets, financial assets) and the purpose of loan application which represents immediate and direct return from the project. We find that both physical assets and financial assets act as substitute to land in credit access. Further, a complementarity is observed between land ownership and financial instruments, and between land ownership and loan purpose, especially productive investments in case of formal credit market. Overall, this chapter shows that being landless need not necessarily be a constraint for these borrowers, since there is evidence of substitution between land ownership and each of financial and physical assets. Further, the observed complementarity of financial instruments with land ownership and with productive investments reinforces the dominance of land.

Third, the existing literature suggests that non-market institutions (NMIs) are an integral part of credit market in developing economies, as are market institutions. When market fails, NMIs emerge to supplement incomplete market insurance. In the context of credit market, borrowings from friends and relatives are an example of NMIs. But, there may be a cost associated with this. When borrowers rely excessively on loan from friends and relatives (FR network), it can reduce their participation in different forms of market credit, such as banks, microfinance institutions and moneylenders. The fourth chapter of the thesis addresses this question. We examine whether borrowings from FR network have any impact on borrowing from bank, MFIs and moneylenders taking the case of Indian households. We find that households who have borrowed from their FR network are more likely to apply to both formal (bank and MFI) and informal (moneylender) lenders relative to borrowers without an FR loan. This could suggest that when a borrower is able to meet a fraction of his credit demand from his FR network, he becomes eligible for a loan from other lenders with his available collateral or it can also increase his demand for loan due to new investment opportunities. However, we find that a loan from friends/relatives reduces

the probability of approval from bank, and this is true for a few states of India. One plausible explanation could be that in case of these states, households with a loan from their FR network demand a higher amount of credit from bank, which makes it more likely that their chances of loan approval goes down vis-a-vis those without an FR loan. Another likely explanation is that borrowers who cannot get a bank loan end up borrowing from their FR network, indicating a reverse causality between them. This chapter also finds evidence of various channels through which FR network affects credit access in case of different lenders. For example, we observe a complementary association between FR network and volume of land ownership of borrowers in increasing borrower's probability of application to bank, moneylender and MFIs. We find that MFIs are more likely to grant credit to the poorer segment of the society, comprising of the landless and marginal land owners vis-a-vis the land rich households.

Fourth, other than rationing, credit markets are plagued by another problem, which is large scale default by borrowers. This is further aggravated by weak institutions and legal framework in the economy. The political system also plays an important role here. In presence of clientelism, borrowers may tend to default when the gains from default exceed the cost of default. The role of social connections on loan repayment has been well explored in the literature. However, these are centered around group lending programs where repayment rests on joint liability. Also, there are many firm level studies which explores this relationship. As such, the fifth chapter of the thesis attempts to establish a causal link between political connections of Indian households and their probability of loan repayment. As individual liability is different from joint liability, this is a question worth exploring whether individual households are able to take advantage of their connections in repaying their loan. The empirical exercise reveals that households that are politically connected have a significantly higher probability to repay their loan vis-a-vis borrowers without connections. We also find that access to various government schemes partially mediates the observed relationship between connections and repayment. We argue that political connections may discipline borrowers to repay their loan.