Chapter 1
Introduction

1.1 Background

Indebtedness among households in developing countries, including India, arises owing to several reasons. Households in these countries require credit to meet consumption expenditure, sporadic expenses such as on marriage, illness etc., and most importantly, to finance routine income generating activities like agriculture. Since it is generally through credit that a household meets various essential requirements, access to credit, is crucial for maintaining and improving its economic condition.

Indebtedness has other dimension too. Availing a loan is associated with repayment obligation and failure to complete one’s debt obligation may lead to loss of asset, or it may cause the debtor to lose reputation. Repayment capacity depends on several factors, such as, use and terms and conditions of a loan. If a household uses loan for income generating purposes, it may lead to further generation of income. On the other hand, if the loan is utilized for non-income generating purposes, such as financing a ceremony, then repayment becomes a problem as such an activity in general, does not improve the economic status of the household. Moreover, if the loan size is large and the income generated by the loan is not adequate, it may lead to loan default, forfeiture of collateral, indebtedness and misery. Unfavorable terms may also lead to default and forfeiture of collateral.

Accessibility to credit at reasonable terms and conditions largely depends on the nature of the agency that extends credit; formal lending agencies generally provide credit on relatively better terms and conditions, but if it is sourced from informal agencies, quite often terms and conditions become unfavorable to the borrower (Bhaduri, 1973; 1977). Rate of interest, for instance, is generally high in informal credit markets of India (NSSO, 2005).

Previous studies (see Basu, 1989, 1991) have provided several explanations for the high rate of interest in informal sector. It has been argued that due to the higher
default rate, rate of interest is comparatively higher in informal credit market (Bottomley, 1975). Some scholars have explained the high rate of interest in informal market in terms of fragmented structure of the market (see Basu, 1989; Haugen 2005). According to these studies (Basu, 1989, 1987, 1991; Bhaduri, 1977) borrower’s limited accessibility makes informal credit market fragmented, which gives monopoly power to lending agencies that raise interest rates.

However, within the informal credit market, rate of interest may vary across developed and less developed regions or between rural and urban locations. According to previous studies (Bhattacharyya, 2005), with the onset of development, precapitalist features of credit market such as interlinkages of markets (e.g. share tenancy) breaks down, which in turn, leads to reduction in interest rates. Development can also lead to reduction in interest rates, through improvement in household’s economic condition, which brings down the default faced by the lending agencies (Ghatak, 1975; Iqbal, 1988).

Reduction in rate of interest can have important consequences on factors such as indebtedness, utilization of loan and repayment. A low rate of interest, for instance, can induce a household to take loan for income generating purposes, which in turn, can scale down debt burden and enhance repayment. Prompt repayment in general leads to decrement of rate of interest. Therefore, the rate of interest along with other terms and conditions of a loan, utilization of loan and repayment are found to have linkages with each other and make significant impact on the well-being of the household concerned.

With this background, the present dissertation examines the following issues: the nature and extent of indebtedness across households, utilization of loan and its relation with accessibility to credit, interest rate in informal sector, and repayment of loans. Given that these aspects may vary across regions, the study undertakes an inter-regional comparison of these issues by selecting states to represent developed, less developed and middle performing regions. More specifically, Punjab and Haryana are considered as developed states, Karnataka and West Bengal as middle performing states, and Chattisgarh and Madhya Pradesh as less developed states. The states are selected based on HDI, agricultural productivity and extent of banking sector
development. A more detailed account of the criteria for selection of the states can be found in chapter 2.

To study these aspects, unit level NSSO data (All India Debt and Investment Survey and Situation Assessment Survey of farmers, 59th round, 2003) have been used. The data sets provide substantial information regarding household indebtedness at the unit level, covering households of both rural and urban areas (detailed discussion on the data set is given in the appendix). More importantly, there had not been much rigorous analysis of this rich information using unit record data. It is also important to note that NSSO, 59th round data, is the latest macro level information on debt and investment available as of today.

While the survey conducted by NSSO in 2002-03 throw light on several aspects, it is difficult to garner information on structure of informal credit market and interlinkages between markets (which has significant linkages to the terms and condition, and therefore on nature of indebtedness) from this data set. This study therefore seeks to gather the required information by conducting a primary survey of adequate size in two villages and one urban area in the state of West Bengal.

The chapter proceeds as follows: The second section presents the features of credit market in India while the third section provides a brief review of literature. These are followed by sections highlighting on researchable issues and objectives. Section 1.6 provides the conceptual framework and section 1.7 deals with the database used in the study. The penultimate section focuses on the methodology and the last section elaborates the organization of the thesis.

1.2. Features of Household Credit Market in India

In India, households’ borrow mainly from two sources: formal and informal. The formal credit market comprises of lending agencies that are regulated by state/central governments, such as commercial banks, cooperative banks and other financial institutions and agencies. As there are several such agencies and their operation is regulated by government, this market is characterized by comparatively lower rates of interest.
However, not all potential borrowers may be covered by formal lending agencies. Since formal lending agencies usually do not have personal relations or other linkages with borrowers, in order to ensure repayment, it mainly insists on collateral, and insistence on collateral obstructs poor/asset-starved borrowers from accessing credit. Ignorance of procedural requirements and credit needs for consumption purposes also deter poor and less educated borrowers from accessing formal credit. Moreover, with a view to reduce transaction costs (such as cost of monitoring), formal lending agencies prefer comparatively larger borrowers (Sarap, 1991).

Borrowers who do not get access to formal sector credit usually approach informal lending agencies for credit. Informal credit market comprises of lending agencies that do not come under government regulations\(^1\). Previous studies (see Basu, 1989; 1997) have found some common characteristics of informal credit markets in India. It has been observed that informal credit markets are fragmented and there exists ‘interlinked contracts’, where two or more independent exchanges are simultaneously decided (see Bardhan and Rudra, 1978; Sarap, 1991; Basu, 1997; Chaudhuri, 2004). There are three kinds of interlinked contracts that have received attention in literature: These are credit-labour interlinkage (see Basu, 1983; Bardhan, 1984; Gupta, 1987); credit-tenancy interlinkage (Bhaduri, 1973, 1977; Braverman and Srinivasan, 1981; Braverman and Stiglitz, 1982,1986; Mitra, 1983 and Basu, 1987, 1989, 1997) and credit-product interlinkage (Gangopadhyay and Sengupta, 1987; 1989; Bell and Srinivisan, 1989; Gangopadhyay, 1994). In the credit labour interlinkage contract, a worker avails a consumption loan from his employer during the lean season in exchange for a commitment of labour service during the peak period, when there is excess demand for labour. In credit tenancy interlinkage contract, the landlord provides loan to their sharecroppers. On the other hand, in credit product interlinkage contract, a trader provides loan to a farmer on the condition that the farmer sells the crop only to the trader.

\(^1\) Informal credit market consists of different kinds of lending agencies such as landlord, traders, professional moneylenders etc. Microfinance institutions have also emerged as one of the source of credit, however, still (particularly during the period which this study addresses) it is not a dominant source.
There can be two kinds of contracts in credit product interlinked deals. First, in some deals the price is fixed apriori, which is known as fixed price credit product interlinked deals (see Chaudhuri, 2004). Second, in some deals, the farmer is required to sell his/her produce at an agreed commission per unit of output sold, which is called fixed commission credit product interlinked deals (see Chaudhuri, 2004). Interlinked deals generally create fragmentation in credit market. Apart from the above-mentioned features, informal credit market is also characterized by renewal of loans with certainty in case of timely repayment (Shivappa, 2005; Deb and Rajeev, 2007).

Each of these characteristics has important economic outcomes. Promise of renewal of loans in case of timely repayment provides inducement to the borrower to repay the loans promptly. On the other hand, existence of a fragmented market structure, gives rise to monopoly, which in turn may make the terms and conditions of credit unfavourable to a borrower (see Basu, 1989, 1997).

However, credit markets are not uniform across all regions; it varies from developed to less developed region or between rural and urban areas. Research papers (Ghatak, 1975, 1977; Iqbal, 1988; Bhattacharyya, 2005) have shown that in developed areas, terms and conditions of credit in informal markets are generally found favorable as compared to those of less developed areas. Apart from favourable terms and conditions, developed regions are also characterized by the tradition of higher utilization of loan for income generating purposes and higher repayment. NSSO (2005) shows that in urban areas and in agriculturally developed states, repayment is better compared to rural areas and less developed regions. It is also important to note that formal and informal credit markets are not always non-linked. In fact, studies have cited instances of linkage between formal and informal lending agencies, where informal lenders borrow money from formal sources only to lend to other (often-smaller) borrowers (see Bell, 1990; Srivastava, 1992; Jain, 1999; Jodhka, 1995; Hoff and Stiglitz, 1997; Bose 1998).

With this brief background of the Indian credit markets, the next section presents a brief review of literature, highlighting the research gaps, particularly in the Indian context.
1.3. Review of Literature

Literature on financial markets of developing countries is vast and it is hardly possible to scan all the studies available on the topic. Hence, we have confined our scrutiny to some of the main studies which form an integral part of the literature and particularly relevant to the issues that we have identified.

1.3.1 Accessibility to Credit

A household is considered to have access to credit if it can avail a positive amount of loan from any lending agency. Extent of accessibility is defined as the amount of loan a household could borrow. Conversely, a household is considered credit constrained if credit availability or credit availed by the household is lower than its demand.

Earlier studies have mainly used two approaches in measuring access to credit and/or credit constraint. The first approach is an indirect approach which seeks to detect the presence of credit constraint from observed violations of the assumptions of life cycle (see Modigliani, 1986) and permanent income hypothesis (see Friedman, 1957), which argues that individuals smooth consumption over their lifetime. The theory states that households transfer their income from high-income periods to periods of low income. This would happen, if individuals would have freedom to borrow based on their lifetime earnings, and if this does not happen, then the household would not be able to smooth consumption and therefore, current income would influence current consumption. Studies (see Hall 1978; Deaton, 1992) that have tried to find out the existence of credit constraint using life cycle and permanent income hypothesis have mainly tested for a significant association of consumption and transitory income. Empirical evidence of such strong association is considered as an indication of credit constraint. However, methodologies (see Diagne et al., 2000) developed later, have shown that current income would not influence current consumption if households adopt precautionary behaviour. For instance, a household may save a part of its current income for meeting uncertain shocks in the future.

The second approach uses information collected directly from households regarding their experience in credit market to find out the determinant of constraint. One can classify these studies into two categories: The first category (Japelli, 1990) classifies a household as credit constrained or not, based on household’s experience in availing
loan, which is then used in regression analysis to find out the determinants of the likelihood of constraint. Since likelihood of being constrained does not capture the extent of constraint, the second category of studies has examined the extent of constraint among households (Diagne et al, 2000). The extent of constraint is based on the concept of credit limit, i.e., the maximum amount of loan that a lender is willing to lend to a borrower. If the credit limit is zero, a household is considered as having no access at all to credit, while household is considered as credit constrained if its demand for credit is greater than the credit limit of the household. The difference between the two (credit limit and demand) is considered as the extent of credit constraint. However, studies based on primary survey have treated demand for credit as identical to the amount of credit the household wished to borrow (Japelli, 1980; Diagne et al., 2000).

It is important to note that demand is defined as desire to purchase goods or services backed by paying capability, but the existing studies (Japelli, 1980; Diagne et al, 2000) have used information based on what the households have reported as their demand. In such cases, there are chances of biasedness. It is hardly possible to distinguish desire from demand for credit, if information on demand as reported by households is taken. Therefore, it is judicious to define demand based on the repayment capability of a household.

In addition, studies in the Indian context (Kochar, 1997; Swain, 2002) have considered the extent accessibility to be uniform across loans obtained for different purposes. It is important to note that, due to the requirement to follow scale of financing norms, in India accessibility to credit in formal market to a large extent depends on the purpose of loan (Sharma, 2002). The above practice (studying the issue of accessibility with respect to the purpose of loan) constitutes one of the major lacunae in existing studies. While, studies focusing on utilization of loan have mainly tried to look into the pattern of loan-use across households with varying characteristics (Singh and Toor, 2005; Sharma and Gupta, 2005, Sharma, 2002; Singh et al., 2005; Sharma, 2002), it is the relation between use of loan and source of loan that some others have relied upon (Sharma, 2002; Shylendra, 2004; Sinha, 2005; Rao, 2005; Lahiri, 2005). Some of these studies have found that in addition to formal agencies, microfinance institutions have played a significant role in motivating the
household to use loan for income generating purposes (Sinha, 2005; Rao, 2005; Lahiri, 2005). However, these research papers are mainly descriptive and based on limited data set. Also, these studies have not linked the issue of accessibility with purpose in a rigorous manner.

A review of literature on accessibility to credit would be incomplete if one did not consider certain other Indian based studies that tried to address the issue of accessibility by looking into supply side variables and indebtedness of households.

1.3.2 Supply of Credit

Accessibility to credit is often assessed through supply of formal sector credit (see Basu 2006; Bhavani and Bhanumurthy, 2012). Certain studies (Shetty, 2005; Patnaik, 2005; Chavan, 2005) have therefore examined changes in credit supply over time, however, focusing mainly on rural areas. These studies have observed that though there was an increase in supply of credit in rural areas during the period after nationalization of commercial banks in 1969; post liberalization period\(^3\) (period after 1991) is mainly characterized by a decline in rural banking as reflected in the decreasing number of rural branches of commercial banks. It is also observed that during this period there has been a decrease in priority sector lending which includes lending to sectors like agriculture, small scale industries, retail trade etc.

1.3.3 Indebtedness of Households

Another indication of accessibility to credit is the incidence of indebtedness, defined as percentage of households that have outstanding loans on a pre-specified date (See Basu, 2006). Studies have therefore analyzed its change over time (Gothoskar, 1988; Rao and Tripathi, 2001; Sharma and Meher, 2001, Basu, 2006), across various states (Narayanmoorthy and Kalamkar, 2005; Sharma and Meher, 2001; Gothoskar, 1988) and households with different characteristics (Singh and Toor, 2005; Lenka, 2005; Atteri et al., 2005; Sharma, 2005, Awasthi, 2005, Swain, 2001; Sharma and Meher, 2001).

\(^2\) An increase in supply of credit means increase in accessibility.

\(^3\) Post liberalization period is sometime also referred to as period after economic reforms.
Studies that have dealt with the issue of changes in indebtedness over time and across different states have mainly used aggregated data published in NSSO Reports\(^4\). For instance, Rao and Tripathi, (2001) have used the data provided in NSSO (AIDIS\(^5\)) Reports of 1981 and 1991 to study the changes in indebtedness over time. Similarly, Narayanmoorthy and Kalamkar (2005) have used information provided by AIDIS Reports of NSSO (59th round, 2003) to study household indebtedness across various states. These studies have concluded that household indebtedness (both incidence and size) has increased, over time (between 1981 and 1991), and indebtedness is more in agriculturally developed states than in other states. However, these research works suffer from the lacunae that they are mainly descriptive in nature, and have not gone into the details of household level data provided by NSSO.

Studies that have dealt with indebtedness across households with different characteristics have mostly used information of a small number of rural farmer households, collected from field surveys\(^6\). These research works have concluded that incidence of indebtedness (measured in terms of proportion of households that are indebted) is more among lower asset groups of households and among households, which are in socially a disadvantaged position. In terms of size of the loan, however, it was observed that lower asset group of households’ takes smaller loans.

### 1.3.4 Repayment of Loan

One of the causes for the poorer accessibility to credit is found to be the risk of default, which may arise owing to lack of incentives to repay, insolvency and institutional factors. Previous studies on this topic are mainly theoretical, focusing on the role of information asymmetry, adverse selection and incentive factors in

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\(^4\) NSSO Reports mainly gives aggregated data at the state level.

\(^5\) All India Debt and Investment Survey

\(^6\) For instance, to study the issue of indebtedness across households of different characteristics, Singh and Toor (2005) have used data collected from 6 villages in Punjab. The study shows that incidence of indebtedness is more among semi medium (landholdings less than 5 acres but more than 2.5 acres) farmers. Certain studies (Sharma and Meher, 2001, etc.) have however used aggregated data published by NSSO.
restitution/default of loans (Stiglitz and Weiss, 1981; Besley and Coate, 1995; Armendariz and Gollier, 2000; Ghatak, 2000; Laffont and N’Guessan, 2000; Banerjee, Besley and Guinnane 1994; Conning 2000; Madajewicz 1997; Stiglitz, 1990). As far as empirical studies are concerned, very few studies (George et al, 1984; Hatai, et al 2005; Latoria et al., 1998; Shivappa, 2005; Sale et al., 2005; Singh et al., 2005) have examined these issues in the Indian context. Most of the recent studies have focused either on the operations of microfinance institutions (see Field and Pande, 2008; Gupta, 2009; Raghunathan et al, 2011; Yanyan and Klaus, 2010; Bauer et al., 2010) or have concentrated on formal sector credit addressing mainly local level issues, using data of limited size (see Muthayya et al, 1991; George et al, 1984; Hatai, et al 2005; Shivappa, 2005; Sale et al.,2005; Singh et al.,2005). Moreover, though it has been acknowledged that existence of informal sector might influence repayment in the formal sector (see Karlan and Zinman, 2010), there is a hardly any study that has analyzed it in details.

1.3.5 Interest Rate Formation

The rate of interest depends on the structure of market, which differs between formal and informal sectors. While interest rate in formal sector is regulated by government and therefore does not vary, there is no such pressure in informal credit market, and interest rates vary often. In fact, interest rate in informal credit is found to vary from one moneylender to the other and across regions. This phenomenon has been observed by several authors who tried to identify or explain the process determining informal sector interest rate (see Bottomley, 1975; Ghatak, 1975; Bhaduri, 1977; Basu, 1983, 1984, 1987, 1989, 1991; Iqbal, 1988; Hoff and Stiglitz, 1997; Chaudhuri, 2000; Chaudhuri, et al 2011). However, there are certain limitations. As far as empirical studies are concerned, most of the studies (Iqbal, 1988; Ghatak, 1975, 77; Sarap, 1991) are dated. Moreover, in empirical research, scholars have mainly used ordinary least square (OLS) estimates as the regression technique for finding out the determinants of interest rate. It is important to note that even in informal market, though rate of interest tends to vary, it assumes only certain limited values (see Bhattacharjee et al, 2009). For instance, by using unit level NSSO data, Bhattacharjee and Rajeev, 2010 have shown that in Punjab and Haryana around 46.7 percent loans were given at 24 percent rate of interest, another 15.8 % of the loans were given at 36
percent interest rate and so on. This is one of the reasons behind the low goodness of fit obtained while using OLS. There is therefore a need for methodological improvement. Thirdly, studies that have looked into this issue in recent times are generally descriptive in nature (Bhattacharyya, 2005; Gill, 2004). In addition, very few studies have addressed the issue at the macro level with a micro base. Although several studies (Ghatak, 1975, 1977; Iqbal, 1988) have noted that interest rate differences exist between developed and less developed regions, there has been almost no effort to identify the factors that could explain such differences.

1.4. Researchable Issues and Gaps

From brief review of literature, it is clear that there are several studies focusing on household indebtedness and related aspects in India. However, there are certain unresolved issues.

Although a number of studies have dealt with the issue of indebtedness, research at the macro level with a micro foundation, particularly for the post-economic reform period (which has an important impact on rural banking), is in general absent. Studies on urban areas and non-agricultural households are also very limited.

Studies focusing on determinants of accessibility/constraint have used demand for credit as synonymous to the amount of credit the household wants to borrow. This has lead to biasedness as demand differs from desire to borrow. In addition, the issue of accessibility has not been studied after considering the purpose of loan. While studying accessibility, purpose of loan is important because in the formal sector banks need to adhere to scale of financing norms, which stipulates the size of the loan for each purpose. Further, any study has barely examined the factors that encourage a household to avail loan and make capital investment. Most studies have mainly segregated the loan into income generating and non income generating purpose, but have failed to further subdivide loan for income generating purpose into capital investment and current investment.

Most studies that have addressed the problem of repayment seem to have focused more on the operation of microfinance institutions than on of formal and informal lending agencies. Secondly, studies are scarce that have tried to look into the role of access to credit from informal sector in formal sector repayment.
As regard the rate of interest, which is one of the crucial components of the terms and conditions of loan, previous studies seem to have made almost no effort to identify the factors that could explain differences in interest rate across developed and less developed regions. Further, these research papers have mainly used ordinary least square techniques, which if used for determining informal interest rate would lead to low goodness of fit.

In this study we have tried to address these shortcomings, using 59th round NSSO data (All India debt and Investment Survey and Situation Assessment Survey of Farmers, 2003), which provides information at the unit (household) level relating to household indebtedness and related variables across different states of India. The aforesaid data has been preferred as it gives information on indebtedness at the macro level and across states with a micro base.

With a view to capture recent changes, a limited-size survey in a selected state is scheduled. The survey is expected to throw light not only on the recent scenario but also to capture certain features of the informal credit market such as interlinkages and monopoly power of the lender more clearly. Further, NSSO data do not provide information on market structures and problems of accessing credit, and therefore, data on these issues need to be collected through the primary survey. For the primary survey we intend to concentrate on the state of West Bengal, where some of the distinguishing features of the credit market is open to study

1.5. Objectives of the Study

Based on the review of literature and research gaps we have framed the following as objectives of our study:

1. To study the nature and extent of indebtedness across households of different characteristics,
2. To examine the factors that determine the accessibility to credit for loans used for different income generating purposes,
3. To study the factors that determine interest rates in informal credit market of rural and urban areas and between different kinds of moneylenders across regions,
4. To study the factors that determine repayment in formal and informal markets of rural and urban areas, and
5. To understand the nature of indebtedness, interlinkages between markets in rural and urban areas using primary survey.

As mentioned earlier, objectives 1 to 4 have been studied, taking a selected set of states, while objective 5 has been studied using primary data.

The first objective provides a background for studying the other objectives. The second objective helps us in understanding the issue of accessibility to credit for different income generating purpose. The third and fourth objectives focus on the issue of interest rate determination in informal credit market and repayment of loans respectively.

1.6. Conceptual Framework

The current study mainly tries to address three broad issues related to indebtedness. These are 1) the issue of determination of interest rate, 2) the issue of accessibility to credit and 3) the issue of determination of repayment. Each one of these aspects is interlinked. This section highlights some of them.

**Figure 1.1 The Conceptual Framework**

Source: Author’s Formulation
Figure 1.1 explains that interest rate mainly depends on four factors: cost of providing credit (Bottomley, 1975; Ghatak, 1975, 1977), monopoly power (Iqbal, 1988) of the lending agency, information asymmetry (Karlan and Zinman, 2008) and institutional factors (Stiglitz and Weiss, 1981, 1991; Basu, 1989). Cost of credit largely depends on risk of non-repayment, while monopoly power is determined by household’s accessibility to credit and utilization of loan. Limited accessibility to credit provides monopoly power to the lender (Basu and Bell, 1991). On the other hand utilization of loan determines the type of demand curve a lender would face. Clearly, a lender could charge more to households who are utilizing loan for urgent purposes. However, inaccessibility or pattern or demand curve does not solely define interest rate; information also plays a major role. A monopolist could only charge higher interest rate, if he possess information about borrower’s accessibility to credit and about his/her demand curve. Institutional factors include government regulations, religious and other social rules.

However, it is not that accessibility to credit alone affects rate of interest; interest rate in turn may also influence accessibility. If rate of interest is set below the market-clearing rate, commonly known as credit rationing, it may create problem for a section of households in availing credit. However, whether a household would avail loan for a particular purpose or not, also depends on demand side factors as well, which in turn is determined by net return from loan.

Repayment depends on incentives to repay the loan (see Stiglitz, 1987), insolvency and institutional factors. Incentive depends on the net cost from defaulting (see Srinivasan, 1989), while insolvency, to a large extent, gets determined by the cost of availing loan or rate of interest. Institutional factors may include social collateral (Besley and Coate, 1995) and other rules and regulations.

1.7. Data

The study mainly utilizes three sets of data

1. Unit Level All India Debt and Investment Survey (59th Round, National Sample Survey Organisation).

3. Primary Survey

The detailed description on each of these data sets are given below

**1.7.1 All India Debt and Investment Survey**

This series is provided by NSSO on a decennial basis. The 59th round data was collected through stratified random sampling procedure during 2003, where rural villages and urban blocks form the first stage units and the households were the second stage units. The data set provides substantial information regarding household debt and investment for about 1,43,285 households in India, including 91192 rural households and 52093 urban households.

The survey period of the 59th round was from January to December 2003. The data was collected through two visits, from the same set of sample households. The information collected in the second visit was considerably less than that collected during the first visit. The survey period of the first visit was eight months - from January to August 2003 - and the survey period of the second visit was four months - from September to December 2003. Broadly, the following information was collected in the survey:-

A. The asset and the liability position of the households between 30.06.2002 till the date of survey. The following information is available regarding asset of the household

1. Residential plots, or buildings possessed by the household

2. Durable and physical assets possessed by the household

3. Financial asset assets possessed by the household

4. Land and livestock possessed by the household.

Besides collection of information for asset and liability position of the households as on 30.6.2002, provisions had also been made to collect data on the transactions of
physical, financial and household durable assets and on the cash borrowings and repayments made during the agricultural year 2002-2003. Information was collected regarding sale and loss of assets during July 2002 to June 2003.

Data is available separately for individual states, as divided into several sub regions. For instance, the data set provides information for 3,975 households of Punjab, 2,630 of Haryana, 2,637 of Chhattisgarh, 6,586 households of Madhya Pradesh, 6260 households of Karnataka and 11,120 households of West Bengal.

While this source provides rich micro level information through a representative sample, there exists limited number of studies that came up with a rigorous analysis of this data. This study therefore attempts to fill such research gaps.

1.7.2. Situation Assessment Survey of Farmers

The Situation Assessment Survey of Farmers was conducted by NSSO during 2003 to assess the well being of farmer households. The data set provides information on assets, income, indebtedness, consumption, access to resources, farming practices and access to modern technology by farmer households. Data in this survey was collected from 51770 households from 6638 villages across India. In this survey, a person was considered as a farmer if he/ she possessed some land and had performed agricultural activities during the last 365 days before the date of survey.

For conducting this survey, a stratified multi-stage design was taken up. In this, the census villages in the rural sector were considered as the first stage units, while the second stage units were the farmer households.

The data set provides information for 1279 farmer households of Punjab, 928 of Haryana, 1087 of Chhattisgarh, 2455 households of Madhya Pradesh, 2009 of Karnataka and 3958 farmer households of West Bengal.

1.7.3. Primary Survey

Apart from using secondary data we have also carried out a primary survey covering 75 households and 10 lenders in a rural area and 70 households and 2 lenders in an urban area in the state of West Bengal. The rural area selected consist of two villages, namely, Sukharia and Balagarh from Balagarh Block of Hooghly district and the
urban area considered was Durgapur. The rationale behind selection of each of these regions is given in chapter 7. Random sampling using lottery method was the sampling method adopted to conduct the primary survey.

1.8. Methodology

The methodology consists both of descriptive statistics and regression analysis. While descriptive statistics is used to study issues such as nature of indebtedness across household of different characteristics, to study the objectives such as factors that determines rate of interest, determinants of accessibility to credit and repayment, we have used cross section regression analyses, most of which are limited dependent variable techniques. For instance to study determinants of interest rate we have used generalized ordered logistic regression techniques, and to study determinants of repayments and accessibility we have used double-hurdle model.

1.9. Organization of the Thesis

The rest of the dissertation is organized as follows. Chapter 2 focuses on the nature and extent of indebtedness across households of different characteristics and across different regions. It also provides a background for the study of the other stated objectives. Chapters 3 and 4 deal with issues of accessibility to credit. Chapter 5 focuses on repayment of loans across formal and informal lenders; Chapter 6 studies the determinants of interest rate in informal markets of the selected developed, less developed and middle performing states in India. Chapter 7 sums up our field experience in investigating the informal market. A concluding chapter is presented at the end.