INTERLINKED AGRARIAN CREDIT MARKETS IN A DEVELOPING ECONOMY : A CASE STUDY OF INDIAN PUNJAB

ANITA GILL
Department of Correspondence Courses
Punjabi University, Patiala – 147 002 India
E-mail : gill_anita2003@yahoo.com

PAPER PRESENTED IN THE INTERNATIONAL CONFERENCE ON GLOBALIZATION AND DEVELOPMENT

Organised by the
DEVELOPMENT STUDIES ASSOCIATION, U.K.

Hosted by
THE UNIVERSITY OF STRATHCLYDE, GLASGOW
10-12 SEPTEMBER, 2003

INTERLINKED AGRARIAN CREDIT MARKETS IN A DEVELOPING ECONOMY : A CASE STUDY OF INDIAN PUNJAB

ANITA GILL

Punjabi University

INTRODUCTION

Few would refute the idea that a predominantly agrarian economy like India should adopt a development strategy that devotes substantial effort at agricultural development. This is because it is being increasingly recognized that instead of transforming economies like India into developed ones through a process of rapid capital accumulation and industrialization the plight of the majority of population of such economies can be improved only by increasing agricultural productivity through the advantages of modern technology. But non-availability of finance is a major constraint in agricultural development in such economies. Due to the uncertainties of agriculture, most cultivators find it difficult to manage from one harvest to another. One recourse for them is borrowing. And borrowing, in this context, should neither be considered objectionable, nor a sign of weakness.

Agrarian credit markets, thus, assume prime importance. These have been at the centre of policy intervention in agrarian economies like ours. Much attention, careful study, and concern has been devoted to these markets. In India, the myriad of institutional settings attempting to supplying resources to rural sector are enough proof. Keeping in view the moneylender's grip on rural life and the ruthless exploitation of borrowers at his hands, the whole object of the official policy was "to provide a positive institutional alternative to the moneylender himself, something which will compete with him, remove him from the forefront, and put him in his place." (RBI, 1954 : 481-82).

Indeed, efforts to reduce their exploitation of the poor did lead to a steady erosion of the moneylender's position, but reports of his demise are grossly exaggerated. The persistence of moneylenders, and limited success of governmental intervention to break their grip on rural life, evoked the emergence of voluminous literature attempting to understand and analyse the reasons behind such pervasiveness.

Several reasons can be put forward to explain the pervasiveness of the informal lenders. The informal sector is characterized by highly personalized loan transactions,

entailing flexibility in respect of loan amount, purpose, interest rate, collateral requirement, maturity periods etc. At the other end is the formal sector where the scale of operation is much larger, and loan terms are standardized. Internal bureaucratic procedures usually raise transaction costs in the formal sector to levels much above that in the informal sector.

Albeit, the guise of the traditional moneylender has changed to one who is also engaged in some other line of business, cultivation or trade. The present day moneylender, while retaining his exploitative traits, may be a landlord who finances his tenants and workers engaged on land; he may be a trader who finances the cultivator only to obtain exclusive rights to purchase his crop; or he may be an input dealer who lent money on the condition that inputs for cultivation be purchased only from him. This observation about the dual role of the moneylender is not new, reference having been made to it as far back as in 1925 by Darling. However, now it is being increasingly appreciated that such transactions, technically called interlinked credit transactions, could be the answer to many puzzling characteristics of the rural credit markets, including the survival of the exploitative informal lenders.

This paper attempts to analyse the various aspects of informal rural credit market of which interlinked contracts occupy the central place. In particular, the nature and extent of interlinked credit contracts, collateral requirement, purpose of loan, rates of interest charged in such transactions, etc. are dealt with. The gap between demand for credit and supply of formal/institutional credit has also been worked out, in an attempt to explain the purveyance of informal lenders, their ruthless and exploitative practices notwithstanding.

The study is a region-specific empirical investigation carried out in two districts of the 'grain bowl' of India, i.e. the State of Punjab. This state is the most advanced in India agriculturally, and has led the country on the path of green revolution. Since the economy of Punjab depends heavily on agriculture and its commercialization, a study of credit contracts taking place in such a region assumes all the more importance, for the need for finance becomes greater, the more the development.

Section I of this paper outlines definition, emergence, evidence and issues related to interlinked credit transactions. Section II presents in brief the characteristic features of the study region based on 361 sample households. Section III will discuss

the results of the empirical evidence gathered. Reform measures, particularly related to agricultural sector, and their implications are presented in Section IV. Section V is a brief summary and conclusion of the study and also suggests alternative policy measures.

[I]

The concept of interlinkage has probably been borrowed from anthropology, where the multi-stranded nature of relationships in small face-to-face communities has often been emphasized. Such societies have been called multiplex, and multiplex relationships between the same economic agents in a poor agrarian community are often described as interlinked contracts encompassing several markets, particularly those of land, labour and credit. In such a definition, says Bardhan, a contract "does not necessarily refer to explicit contracts with legal sanctions, but more often to implicit arrangements enforced by nothing more than the prevailing custom, social interaction and goodwill in a small, closed community and the enlightened self-interest of the individual in a situation of limited alternative opportunities" (Bardhan, 1984 : 157).

An apt definition of interlinkage has been provided by Bell and Srinivasan. According to them, "An interlinked transaction is one in which the parties trade in at least two markets on the condition that the terms of all trade between them are jointly determined" (Bell and Srinivasan, 1989 : 73). Such arrangements are very common in South Asia and elsewhere. Such trades normally involve an exchange of current for future claims, and hence an element of credit. The main arrangemenets can be : the landlord who finances his tenants' consumption and working capital, the employer who gives advances to labourers in return for a claim on their time when he needs them or as part of a contract to employ them for a continuous, extended period, and the trader or commission agent who finances cultivators on the condition that they sell to, or through him, when the crops go to the market (Bell, 1988 : 797-8).

The first report of interlinkages involving rural credit appears to be in 1925 (Darling, 1925). However, it was the work of Bardhan and Rudra (1978) that led to much of the development of recent theoretical work. They took a survey of nearly 275 villages in West Bengal, Bihar and some of the eastern districts of Uttar Pradesh in 1975-76. The evidence strongly suggested that the landlord quite often gave production loans to the tenants. About fifty per cent of tenants took loans from their landlords and

most attached farm labourers borrowed from their employers. Their survey also suggested that the overwhelming majority of tenancy and attached labour contracts do not display feudalistic features.

A number of other empirical studies have established the existence of interlinked contracts. Bliss and Stern (1982) reported that two of forty tenants in Palanpur were indebted to their landlords. In the same village Dreze and Mukherjee (1987) found tenancy-credit market interlinkages. Sarap (1986), in a commendable field research conducted in Western Orissa, found a variety of interlinkages including those in land, labour, inputs and output markets in which credit was central. Bell and Srinivasan (1989), in a survey of Andhra Pradesh, Bihar and Punjab, selecting 34 villages and 40 households from each village, found that while barely 15 and 20 per cent of the total amounts borrowed in Andhra and Bihar respectively, are associated with transactions in other markets, almost 60 per cent are so in Punjab. In another micro-empirical study, Swaminathan collected primary data from two villages – Konur and Gokilapuram – in the Madurai district of Tamil Nadu, and found that, "interlinkage with other markets, particularly the labour market is, in many cases an important feature of contract enforcement on loans" (Swaminathan, 1991 : 177).

Evidence of credit market interlinkages was reported in other countries also. Wharton (1962) analysed the rubber markets in Malaya, and emphasized the existence of the dealer-lender-merchant. Long stressed the role of interlinkage is his study of Thai and Indian credit markets: "The merchants who trade with farmers in Asia frequently combine the activities of retailer, money-lender and buyer of output" (Long, 1968 : 277). Jones (1980), in a sample of 404 farmers in a rice growing district of Ghana reported that 112 borrowed from traders against the crop, and 110 borrowed from Agricultural Development Bank. Aleem (1900) conducted an intensive micro-level survey convening the supply of and demand for credit in villages served by the market town of Chamber in Sind, Pakistan in 1980-81, and found interlinking of loan and commodity contracts in informal markets, Siamwalla *et al.* (1990), in a study of Thai rural credit market found trade-credit interlinkage. Floro and Yotopoulos (1991) studied various aspects of informal credit markets by surveying fourteen villages in five Phillipine municipalities in 1984, and found that interest rates are lower for linked than for unlinked loans.

To understand the reasons which have been advanced to explain the existence of interlinkages, it would be appropriate to briefly look at the new views of rural credit markets. These have been advanced on the basis of three observations (Hoff and Stiglitz, 1990) : (a) Borrowers differ in the likelihood that they will default, and it is costly to determine the extent of that risk for each borrower. This is conventionally known as the screening problem. (b) It is costly to ensure that borrowers take those actions which make repayment most likely. This is the incentive problem. (c) It is difficult to compel repayment. This is the enforcement problem.

Interlinked credit contracts are used as a mechanism to alleviate screening, incentive and enforcement problems. According to Bardhan, "Interlinking of transactions is a way of partially circumventing the problem of incomplete or non-existent markets…" (Bardhan, 1984 : 160). However, according to Bell (1988), there are several other causes of interlinking. According to him, interlinked arrangements may arise when there are significant transaction costs. These costs depend on the number of occasions an individual attempts a transaction. When two persons trade with each other in two or more markets, one of them should gain thereby. Transactions costs are reduced through deliberate pair-wise dealing over several markets.

The second reason why transactions are interlinked is because of asymmetric information, and the terms of dealings involving moral hazard. Bell (1988) feels that unobservable actions of the borrower generally affects the returns of the lender. Under these conditions it is but natural that the landlords look for instruments for monitoring the labour inputs used by the tenant. And interlinkage may be one such instrument. This aspect has also been examined by economists like Braverman and Stiglitz (1982) and Mitra (1983). Basu (1983) and Bardhan (1984) provide examples of moral hazard which results in credit-labour market interlinkages. Gangopadhyay and Sengupta (1987) as well as Bell and Srinivasan (1989) have developed models in which credit and product markets have been interlinked due to the presence of moral hazard.

Interlinking may also be used as a screening device. The idea was developed by Braverman and Guasch (1984), who established that by linking tenancy and credit contracts, a screening device can be implemented in an environment characterized by a heterogeneous labour pool and imperfect information. In credit transactions, there is always the possibility that the borrower may default. This phenomenon has been

characterized by Basu (1983) as 'potential risk, and he argues that in the face of such risk, the market has an inherent tendency to get interlocked with other markets. Thus landlords reduce potential risk to zero by offering credit to only those borrowers whom they can bind by a tenancy or labour contract also.

Bell (1988) feels that while the categorization of the reasons of interlinking is convenient, it frequently happens that more than one of them are at work in the interlinked arrangement found in practice.

The question of effect of interlinked factor markets on the incentive to innovate in agriculture has also been extensively examined in literature. The debate was triggered off by Bhaduri (1973), who claimed that a landlord who also provides credit to his tenants, may prevent them from adopting innovations that raise output. Bhaduri's assertion drew a lot of stormy exchange of views and criticism from Griffin (1974), Newberry (1975), Ghose and Saith (1976), Srinivasan (1979) and Pant (1980) who pointed out that in the context of interlinked tenancy and credit transactions, the landlord does not discourage the use of better technology. In fact, it was actually established that interlocking of credit and land markets actually resulted in higher productivity through adoption of better technology [Rao and Subramanyam (1983); Bardhan and Rudra (1984); Sarap (1991)].

However, despite the vast literature and empirical investigations available, the present study was carried out because what has largely been ignored till date is the interlinking of factor markets with credit under improved technological conditions with bigger cultivators also entering the land lease market as lessees and small landowners appearing as lessors. The situation is particularly apparent in the Indian Punjab, where capitalist tenants produce for the market with the help of hired labour and modern inputs. Here, the lessor (small landowners) cannot offer credit support along with a lease contract to the lessee (large landowners). But instead of interlinkage being diminished in such instances, it has become strengthened and not weakened, with credit getting linked with the input and output market. The new technology adopted by cultivators (which ushered in the Green Revolution) required greater investment, and hence, a need for greater credit. Institutional sources of finance, which insist on visible assets as collateral (land being the most favoured), failed to meet this increased demand, and the excess demand for credit then spills over into the unregulated section

of the credit market. Here enters the role of the new guise of moneylender-the commission agent, also called 'arhtiya' in Hindi and Punjabi. A commission agent secures his clients by advancing tied loans to cultivators. In return for credit, the cultivator has to sell his crop to the commission agent. Credit thus gets links with output. These links get strengthened with growing commercialization.

Empirical investigation on credit marketing interlinking under improved technical conditions in agriculture is scant in the context of India. Perhaps the only notable exception is the work of Bell and Srinivasan (1989). But they too have admitted that the pervasiveness of credit marketing interlinking (particularly of the type observed in Punjab) has received little attention in literature. This is a sobering observation, because the growing commercialization of Indian agriculture (particularly the green revolution belt) has encouraged the rise of trader-moneylender who is no less, rather more, exploitative than the traditional moneylender. But any attempt to push them out of business completely would adversely affect agricultural activities. This raises serious doubts on the desirability of working policies adopted by the institutional sources of credit.

[II]

The study region of the present paper – the Indian Punjab – is a classic example of a fast developing economy with agriculture at its base. The state which ushered in the Green Revolution has been rightly given the name of 'grain bowl' of India. To the state also goes the credit of promoting the white revolution in India. These achievements are despite the fact that politically and administratively, the state has suffered major upheavals and turmoil. With the partition of India in 1947 came the bifurcation of Punjab into West Punjab (Pakistan) and East Punjab (India). In 1966, the Indian Punjab was trifurcated into Punjab, Haryana and Himachal Pradesh. The period of militancy in the recent past further wreaked havoc for the economic development of the state. However, the state has been able to overcome all these and achieved remarkable success.

The present day Punjab has an area of 50,362 square kilometers, and a population of 24289296 persons of which 66% is rural population. It is one of the smaller states of India, with 1.5 per cent of total area and 2.4 per cent of the total population of India (2001 Census). The state comprises of 17 districts. The topography

of the state, sub-tropical continental climate, fertile soils, and favourable conditions of water supply gave the state a favourable foundation for agricultural development. The per capita income of the state was highest upto 1993-94, after which it was surpassed by the State of Maharashtra. Agriculture (including livestock) still contributes around 40 per cent of the Net State Domestic Product at Factor Cost.

However, for the present study, two districts of Punjab – Patiala and Amritsar – were taken up. Field investigations were carried out with the help of detailed questionnaires. The field investigation in the district of Patiala was carried out in 1994-95, and pertains to the two crop seasons of 1993-94. In Amritsar, the field investigation was conducted during 2001, and the data pertains to the year 1999-2000. It is important to note that the former district was studied immediately after the implementation of economic reforms in India, while the latter district was covered after nearly a decade of the implementation of reforms. Inter-temporal comparison, however, is not the objective of the study. To gather greater empirical evidence for the analysis of the success story of exploitative informal lenders in this, and despite this, phase of banking sector reforms is the main purpose of the study. One district – Amritsar – is one of the three largest districts of Punjab, with the largest number of cultivators and agricultural labourers among the districts of the state (1991 census). It is also categorized as a border district as it has a 16 km border common with Pakistan. However, both districts follow the wheat paddy rotation of crops, with more than 90 per cent of net area sown as irrigated and more than 95 per cent of inhabited villages linked with metalled roads.

Six villages from each district were chosen, of which three were developed and three less developed. This classification was on the basis of productivity and infrastructural facilities. Thus, in Patiala district, Roargarh, Sogalpur and Retgarh were the less developed villages, and Ramgarh, Chappar and Dodra the developed villages. In Amritsar three villages – Rattoke, Ghoga and Attari – were the less developed. These villages have the added distinction of being border villages. The developed (and non-border) villages were Goindwal Sahib, Kadgill and Harsha Chhina.

A sample of around 200 respondents from each district were sought to be interviewed, but due to non-response in the case of some, the sample size was reduced to 181 in Patiala and 180 in Amritsar district. The respondents were further classified into five size groups according to size of owned holding :

Landless	:	not owning any land
Marginal famers	:	upto 2.50 acres
Small farmers	:	2.51 to 5.0 acres
Medium farmers	:	5.01 to 10 acres
Large farmers	:	10.01 acres and above

However, an interesting feature of the sample respondents classified as landless was that while in the Patiala district, these were purely agricultural labourers, with only 3 (of 29) households renting in a total of 6 acres of land, in the Amritsar district this category comprised of pure tenants who have leased-in land from the government or landlords. The distribution of households and owned area according to size group of holdings in the survey villages of the two districts is given in Table I.

The pattern of tenancy is given in Table II. An important feature of the survey villages is that land has been leased-in to increase the operational size of holdings by all the groups. However, in Patiala district, the major portion of land was rented in by large farmers (53.1 per cent). Area rented in also increased with increase in size of land holding. This was a clear case of reverse tenancy. But in Amritsar, although large farmers had leased in land, the percentage of area leased in decreased with the increase in size group of holdings. Reverse tenancy, thus, was much less prominent in this district. This was mainly because of the dominance of pure and mixed tenants with very small land holdings.

The survey villages, thus, have some similar characteristics, while there are some glaring and important dissimilarities too. These, combined with different time periods of the survey in the two districts, however, highlighted broadly similar observations and conclusions so far as credit (particularly informal credit) is concerned.. This became evident when different aspects of credit – type of lenders, nature of credit contracts, collateral, and rate of interest charged – were studied. The results and observations of these aspects are given in the next section.

[III]

The field survey brought to light several interesting and important observations. One was that maximum number of households borrowed from private sources in both the districts (Table III). A total of 156 (86.2%) households (out of 181) borrowed from private sources in Patiala. The number was 103 (57.2%) for Amritsar. From the formal

sources, the co-operatives found favour with the borrowers. Commercial banks did not find favour with the borrowers. The reasons varied from the cumbersome process involved in getting a loan from such agencies, and the more important one of the demand for a collateral (mainly in the form of a fixed asset such as land) by these agencies. Landless households in both the districts relied heavily on private lenders (58.33 percent in Patiala, 70.59 percent in Amritsar).

The field survey, thus, amply established the fact that informal credit market in agriculture is thriving. And this phenomenon is not of our particular study region alone. In fact, contrary to official reports, this observation is supported by a number of other studies also, carried in different parts of India [Ghate, 1992; Swaminathan, 1991; Sarap, 1990; Bell and Srinivasan, 1989].

Our study confirmed not only the existence of linked credit transactions in the informal credit market, but also that the majority of borrowers obtained credit through these transactions (Table IV). In both the districts, the linkage of credit to output was found to be the strongest, although it was much more pronounced in Patiala (65.19 percent) than in Amritsar (36.67 percent). The commission agent, or arhtiyas as they are commonly called, were the most dominant source of informal credit in the study region. All categories of farmers borrowed from this source. The dominant mode of lending was cash and inputs (seeds, fertilizers, pesticides etc.), while crop was the main mode of repayment. The tying of credit with both input and output was also observed in both the districts. This could be due to the relatively difficult access of cultivators to the input outlets, and hence greater control of lenders over borrowers.

Interestingly, although credit labour linkage was observed in the Patiala district among the landless households, no landless household in Amritsar reported of this type of linkage. This is mainly because sample landless households in Patiala were labourers, while they were pure tenants in Amritsar (and hence their linkage with output, not labour).

It is clear that informal lenders prefer crop as a collateral than any other form of surety. Recovery has thus been made easier, because it will be done at the time of sale of crop. By shifting to this collateral, arhtiyas have displayed a greater foresight than the formal institutions, which still insist mainly on land as a collateral.

Also, for the borrowers, default (from informal lenders) "only means sale of next crop also to the arhtiyas, which is far better than harassment and imprisonment" (A respondent in Patiala). However, now the Punjab Budget 2003-04 has laid down that no farmer will be arrested for recovery of cooperative loans.

Table V gives the extent of interlinked transactions in the informal credit markets, to supplement what was observed in Table IV. In Patiala, the interlinked borrowers constituted 83.98 percent of the sample households of 181, while for Amritsar, the figure was lower at 50.56 percent. The percentages will be much higher if non-borrowers, and households borrowing only from formal sources are excluded from the total number of sample households. It is interesting to note that most interlinked borrowers were also availing formal loans, while the number of non-linked borrowers getting formal loans was very less. This was mainly because the credit needs of such households, for one reason or the other, was less/negligible, which could be met from formal sources alone.

Our survey result contradicted other studies (for instance, Sarap, 1991), where (in Orissa) interlinked transactions were essentially a phenomenon confined to landless labourers and marginal and small farmers, and the proportion of linked borrowers fell with an increase in size of holding. Our results are more in line with, and confirm the findings of Bell and Srinivasan, who found that almost 60 percent of the total amount borrowed in Punjab was associated with transactions in other markets and "virtually all of that amount takes the form of credit marketing deals" (Bell and Srinivasan, 1989 : 79).

Market interlinkages in credit are, thus, not a feudal relic. Credit involves future claims over current transactions, and the future is uncertain. From the lenders' point of view, interlinked contracts reduce the risk of default, while borrowers agree to go in for linked credit transactions because formal credit is not only insufficient (a point that will taken up later in this paper), but also that they do not have conventional collaterals (land being the main one) to offer to formal institutions. Hence they turn to sources where non-conventional collaterals like labour service or sale of crop are readily acceptable. Also, low education, low proportion of income from sources outside agriculture, and higher (past) indebtedness reduces the bargaining strength of borrowers, and play a decisive role in their act of opting for linked credit transactions

Collateral security and the rate of interest are closely related. These two are the conventional channels of control used by the lenders, particularly in the informal credit market. Most empirical as well as theoretical studies have concentrated on the underpricing of collateral and the high rate of interest charged by the lenders in the informal market. A collateral is underpriced so that the lender can cover his losses and earn an income in case of default. A high interest is charged to earn as much as possible from the credit transaction itself.

Turning specifically to our study area, crop was found to be the most favoured collateral in the informal credit sector. This is because the lenders in the study region are mostly arhtiyas, who add to their income by linking the product and the credit markets, and combine their principal activity (as commission agent) with money lending. Land, of course, was the collateral used in formal credit markets. For the landless, labour was the collateral in informal market and immoveable assets in the case of formal markets, since labour is not acceptable as a collateral to formal institutions.

The use of different collaterals, thus, is one factor which is responsible for the segmentation of the credit market into formal and informal (Bhaduri, 1977).

A related issue, as mentioned previously, is that of rate of interest. The prevalence of plurality of interest rates in the informal credit markets has been a source of puzzlement to many. This is more so, because in the same area, rates of interest can take a wide range of values, but are often towards the higher side. Traditionally, high rates of interest were explained in terms of risk of default (Bottomley, 1963, 1975), and then in terms to under pricing of collateral (Bhaduri, 1977; Basu, 1984). A superior marketable collateral has been shown to have a negative association with high interest rates (Sarap, 1991; Swaminathan, 1991). However, in areas where agriculture has developed rapidly and where commission agents have emerged as the dominant moneylender (informal), there is seldom any underpricing of collateral, yet the rates of interest charged are high. This may be attributed to the fact that borrowers require more credit than is provided by formal institutions on the backing of (undervalued) land as a collateral. Informal lenders are the only option left, which puts these lenders in a strong bargaining position, and they can charge a high rate of interest. These lenders do not insist on giving only productive loans, and lend without much paper work, making their lending all the more attractive (and exploitative, in terms of rates of interest). Crop,

rather than land, is the aceptable collateral. And thus, even though land implicitly enters the picture, crop as a collateral depends more on area operated rather than area owned.

There is a possibility of undervaluation of collateral (labour services) in case of landless workers, and the effective rates of interest may turn out to be much more than the actual rate of interest charged. This difference arises on account of wage differentials. If the wages of such borrower-labourers are calculated and compared with the prevailing market wage rate at that time, the difference between the two is actually an additional interest that has been paid, albeit implicitly, and should be added to the stipulated rate of interest to bring about the real, effective rate that is being charged.

In our study region, rates of interest varied from 24 percent to 36 percent per annum for the landowning households. We calculated the weighted mean rate of interest for each class of loan-size and land-size (Tables VI, VII and VIII). In general, the rate of interest charged declined (although slightly) as the amount of loan borrowed increased. This can be understood if the two main activities of the lenders in our survey area are considered together – that of acting as a commission agent, and that of a money lender. The greater the amount of loan borrowed/lent, greater will be the quantity of crop that will be put up for sale (or, if it is less, the sale of next crop to the lender is ensured), and greater the commission that will be earned. So a slightly lower rate of interest is an incentive for borrowers to borrow more.

Marginal and small farmers borrowed at more or less the same rate–29-30 per cent. The rate was slightly lower for the medium and large farmers (27-28 percent). The rates of interest charged in less developed villages were normally found to be higher than those charged in developed villages. Higher income and higher linkage also led to a lower rates of interest.

The landless in Patiala district were considered separately, since these were pure labourers (as opposed to pure tenants in Amritsar). As already mentioned, there is every possibility of undervaluation of collateral in this category, in the form of lower wages. So, for calculation of effective rates of interest, wage differentials were obtained on the basis of the actual wage rate paid and the market wage rate prevailing at that time. The differential was calculated annually, on the basis of what the worker would have earned had he been employed outside the field of his lender and what he actually earned by working for his lender. Two major assumptions were made : one, that the worker, if

employed outside, would be able to find work throughout the year, and two, the workers work for an equal number of hours, whether they are employed outside, or work in the fields of their lenders. This amount of wage differential was then treated as the (extra) interest amount paid back, and the implicit rate (r_{imp}) was calculated using the conventional compound interest formula.* This is given in Table IX.

The table reveals that rate of interest was lower for higher loan amounts.** The implicit as well as effective rate of interest was lower for greater loan amounts. The effective rate of interest turned out to be as high as 80 percent for loans of smaller size. Hence, the smaller a borrower, the greater is his exploitation. The exploitation is greater if the longer working hours of these linked landless borrowers are also taken into account – a linked landless borrower worked for as many as 18 hours a day, compared to 8 or 9 hours work done per day by a non-linked labour.

Since labour service is a collateral that is inferior to crop, it can safely be concluded that a relatively superior collateral carries a lower rate of interest. This conclusion is in line with the findings of Sarap (1991) and Swaminathan (1991).

We have analysed the type of lenders, nature of credit contracts, collateral and rate of interest in the informal credit market, and have established that informal lenders, particularly commission agents are an integral part of the rural credit market. It would now be pertinent to estimate and analyse the credit needs of households (for production plus consumption) and compare the same with the prevailing supply of formal credit, in order to arrive at the credit gap from formal sources for these households. This gap will be, in itself, an explanation for the purveyance of informal lenders.

Credit gap is taken as the difference between demand for credit and supply of credit by the formal financial institutions. The total credit requirement (both production and necessary consumption) for sample households was estimated. The total demand for credit would be total production and consumption expenditure plus net informal borrowing minus the total income. The assumption is that net borrowing (the total informal loan borrowed minus the total loan repaid) is necessary for these households

---

*See Gill, 2000.

**The rate of interest in the last category of loan size is slightly higher because it involved a random case in which a loan had been taken before the birth of the borrower, and the borrower was still working for the landlord-lender in lieu of repayment.

for essential consumption (Sarap, 1991). The demand for credit from the formal institutions may also include borrowers' use of it for essential consumption as well. In the absence of minimum consumption requirement, the farm households may, in all probability, substitute formal credit for consumption purposes (Lipton,1976).

The total credit demand, credit supply from formal institutions, and the credit gap (depicted in the form of supply as a percentage of demand) are given in Tables X and XI. It is at once obvious that formal credit is not able to meet the demand for credit. In Patiala as well as Amritsar district, total supply of formal credit for sample households was not even 50 percent of total credit demand. The landless households' demand was the least satisfied by formal institutions, irrespective of the fact whether they were landless labourers or pure tenants. Organized credit typically tends to elude the poorest people. Formal lenders need to show on paper what the borrower's permanent address is, what collateral the borrower is able to offer, and other evidence of the loan being safe. These conditions are difficult to justify in the case of footloose, landless or near landless labourers, and which, in turn, makes repayment difficult to guarantee. On the other hand the informal lender uses his personal links and relationship to ensure that the even the poorest of borrowers will not be able to renege on repayment.

A closely related issue is that it is often argued that while formal loans are mainly for productive purposes, the informal loans are purely for consumption purposes, which is why these lenders thrive. And if the households stop borrowing for consumption, these lenders would not do such roaring business. However, this is only partially true. For one, it should not be forgotten that consumption also includes essential consumption, and even this cannot be met by the farm (and non-farm) income of these households, and borrowing is the only option left. Secondly, empirical evidence gathered by us was contrary to popular belief. Nearly 50 percent (or even more) of informal credit was utilized for productive purposes. It was only in the case of pure landless labourers of Patiala who utilized a greater percentage of loan for consumption, or for repayment of old debts (Table XII).

With technological advancements in agriculture, cultivators frequently need to borrow for productive purposes such as fuel, repair and maintenance of machinery. These expenses cannot be postponed during peak seasons, and it is only the informal

loans which are immediately available, and normally credit limit is not fixed as in the case of formal loans. On top of it, bureaucratic red tape involved in getting official credit thwarts borrowers from approaching the organized sector, and they obtain loan on a higher rate, but without delay and without undue formalities.

However, it can be conceded that if informal loans are not used for such consumption purposes as social ceremonies, particularly marriages, the burden of informal loans can be reduced to some extent.

* * * * * *

On the whole, empirical evidence gathered suggests that informal lenders have survived despite all proclaimed policy measures. Their guise has now changed to a lender, whose principal activity is not money lending. Rather, credit contracts are now interlinked with contracts in other markets. In the study area, it is the sale of crop (i.e. output) which is interlinked with credit, and the arhtiya has emerged as the main informal lender. By shifting to a better collateral (crop, instead of land), these lenders have not only strengthened their bargaining power in their principal activity, but are also able to exploit the borrowers to the hilt by charging exorbitant rates of interest. And yet, borrowers are forced to turn to them because formal credit is not only inadequate, availing it is also a cumbersome process, involves ownership of land explicitly or implicitly, and a sizeable class of cultivators cannot offer much land for loans. A lower rate of interest in formal market, then, is hardly any incentive.

[IV]

The above discussed empirical evidence was gathered after the implementation of the financial/banking sector reforms beginning 1991, and in a region of the country that is labelled as the grain bowl of India. And if the situation is bad here, the plight of cultivators in other, agriculturally less developed regions is not hard to visualize. The issue then is : what role the reforms have, or will, play in addressing the credit needs of the rural areas in general, and agricultural sector in particular? A brief review of the reform measures, particularly relating to agriculture, the implementation of these measures and their impact is what is needed to highlight the real picture.

Agriculture forms a very important part of the concept called priority sector, a comprehensive definition of which was adopted in India in 1972. This had to be done because bank credit to crucial sectors like agriculture, small scale industries and weaker

sections was negligible despite the presence of cooperative banks, whose main function was to finance the rural sector.

However, due to one reason or the other, mainly due to the nexus among different players for the misuse of credit, neither the priority sector (including agriculture), nor the banking sector (in terms of attainment of social goals and financial health) benefited. Financial sector reforms became imperative. The Narasimham Committee Report (1991) suggested to bring down the priority sector target from 40 percent to 10 percent, and a redefinition of the priority sector. The argument put forth was that "...two decades of such preferred credit is a long enough period to attempt an evaluation of its continuing need... there is evidence that contribution of bank credit to growth of agriculture and small industry has made an impact and served its purpose" [Report of the Committee on the Financial System, 1991 : 43].

The recommendation, though aimed at a sincere effort to improve the financial health of banks, nevertheless completely overlooked the social priorities of the economy, and perhaps are not in line with the committee's own observation that a credit gap exists in rural community, and a distance is still required to be covered before rural banking needs are fully taken care of [p. 77 of the Committee's Report].

However, as expected, the recommendations were not approved by the political masters in our country. The target of 40 percent credit to priority sector (and 18 percent to agriculture) was not touched. However, monitoring of fulfilment of targets began to be taken less seriously in the post-reform period. The policy of branch network into rural areas seems to have been given up in the post reform period, although the committee had recommended that banks should be given full freedom to open or close branches **other than** rural branches for the present (p. 75 of the Committees' Report). The declining number of rural branches has been adequately established by the research foundation of Economic and Political Weekly. This is bound to hurt provision of institutional credit to rural sector, although it must be admitted that the mere installation of a branch is also no guarantee of sound lending activity.

Another issue is the regular revision of the priority sector list. It now includes new sectors, new segments,* with the result that the entire focus of the priority sector has been lost. Concentrating at present only on the agricultural sector, in the category of direct advances to agriculture, acquisitions of jeeps, pick up vans, mini buses etc. have been included – acquisitions that are minimally engaged in by small and marginal farmers. Such facilities (read vehicles) will be used more by the affluent farmers, and that too not for transporting their agricultural produce, but for non-farm activities. Absentee landlords are also eligible for such credit. Agricultural production, then, is not expected to improve much.

Again, earlier there was a target of 18 percent of net bank credit to agriculture in the form of direct advance, but subsequently, such a target was allowed to be achieved by including a certain percentage in the form of indirect credit. A number of other provisions, like the contribution permitted for the NABARD's* rural infrastructure development fund (RIDF) to the extent of 1.5 percent of net bank credit has further contributed to the reduction in effective share of agricultural credit. Agreed that infrastructural development is essential for agricultural development, but flow of resources to apex level institutions, State Electricity Boards, dealers etc. is not going to directly help farmers. Infrastructural development should be financed through budgetary resources. If direct advances to farmers are curtailed to finance these infrastructural developments, farmers will not have resources to buy these services, and at the end, they will ask for free services – a sensitive issue that will, and is being, picked up by all brands of political parties (not because they sympathize with farmers, but because this is going to benefit many of them economically as well as in terms of vote bank) and create political as well as administrative problems, not to talk of economic problems. The share of agriculture in total bank credit (both direct and indirect), which had reached a peak of 15.9 percent in 1990, touched a low of 9.6 percent in 2001. Direct finance to agriculture reduced from 13.8 percent in 1990 to 8.1 percent in 2001 [EPW Research Foundation, Special Statistics -33, 2003 : 839-40]. This decline would have been pardonable, had bank credit to State Electricity Boards

* See Dasgupta (2002), "Priority Sector Lending : Yesterday, Today and Tomorrow", Economic and Political Weekly, Vol. XXXVII, No. 41, Oct. 12-18, 2002, p. 4241-2 for a comprehensive list of additions and modifications.

* NABARD stands for National Bank for Agriculture and Rural Development.

under the cover of agriculture made these banks them more efficient. It is also doubted whether the new inclusion in priority sector of bank loans to commission agents for meeting their working capital requirements on account of credit extended to farmers for supply of inputs will assure a better quality of product at a cheaper rate, or only improve the margin of dealers. Reserve Bank of India, thus, seems to have taken the issue of redefining the priority sector much more seriously than the issue of needs of small and marginal farmers.

So far as overall flow of institutional credit to agriculture is concerned, at present the commercial banks contribute around 50 per cent, while cooperative banks account for around 43 per cent, and the rest is provided by Regional Rural Banks. It is important to note that the contribution of commercial banks will not be of much help if the just mentioned drawbacks regarding priority sector lending, particularly agriculture sector lending, are not removed.

Apart from this, there is the long standing problem of rate of interest charged on farm loans. The rates are, undoubtedly, exorbitant in the informal loan market, but these are no less even for institutional loans – the crop loans are given at a rate of interest of 14-18 per cent per annum. Then there are additional costs involved like frequent visits to the institution, fee, submission of documents (which more often than not requires payment for services to someone who can fill the forms of the illiterate farmers) etc. All these expenses can be added up in the rate of interest, and the institutional rate of interest then is almost at par with the informal rate of interest. The recent (July-end, 2003) policy decision of reducing the rate of interest charged by commercial banks on agricultural loans to 9 per cent on loans upto Rs. 50,000, and below the prime lending rate (PLR) for loans upto Rs. 2 lakhs will not prove to be substantially beneficial because small and marginal farmers throughout India obtain institutional loans mostly from the cooperative banks (where interest rates have not been decreased) instead of commercial banks (in our study region, all classes of cultivators borrowed more from cooperatives than commercial banks as has been shown in Table III). And unless and until (institutional) supply of credit is commensurate with demand, the benefits of a lower rate of interest will be totally negated.

All this discussion in no way implies, or favours that informal lenders be allowed to rule and exploit the borrowers, while banks concentrate to make themselves more competitive in the globalized environment. Agreed that the informal sector fills in the wide gap between demand for credit and supply of institutional credit, but their working practices – interlinking credit with factor market, and slowly but surely enticing cultivators in a debt trap, - are not desirable, to put it mildly. The recent spate of suicides by cultivators is enough proof. The suicides got particularly noticed because a majority of these were committed in this green revolution State of Punjab. A survey** carried out in 29 villages of only four of the seventeen districts of Punjab revealed that between 1988 and 2000, 79 suicides were committed, of which 67 were cultivators and 12 were agricultural labourers. Indebtedness was found to be the main reason behind these suicides. Needless to emphasize that commission agents played a very important role in this. If the cultivators were unable to pay back their dues to these lenders, they were forced by commission agents to take loans, especially loans to buy tractors, from institutional sources, sell the tractor, and payoff their debts due to the commission agents. Can our nation, then, afford to let commission agents fill the credit gap.

We must understand that the necessity of borrowers to approach the informal lenders, enter interlinked contracts, and pay high rates of interest is not be confused with their willingness to do so. Demand for credit is much higher than supply and if credit is not available from one source (formal), borrowers are forced to approach another source (informal), because cost of production cannot be met out of their own income. The situation can only become worse if the share of agriculture in total bank credit is further reduced, as is being done in post reform period, lower interest rates notwithstanding. Theoretically, it was not necessary that the reform of the formal financial sector should be achieved by neglecting core sectors and putting them on the back burner. There could have been countervailing efforts to simultaneously serve the rural credit needs. The experiences of Indonesian rural financial institutions and the Grameen Bank of Bangladesh should be recalled but adapted to Indian conditions. Social commitments of financial institutions have not been fulfilled, despite three

** Carried out by a fact finding committee of the Association for Democratic Rights (Patiala Unit) in October 2000.

decades of priority sector lending, and hence the question of doing away with them should not arise now.

[V]

This section is just an attempt to summarize and conclude the earlier sections. Our study was primarily concerned with the pervasiveness of the informal lenders in the agricultural sector, despite a myriad of institutions providing credit to this sector. It was carried out in twelve villages of two districts of the State of Punjab – agriculturally the most advanced region of India. A micro empirical study such as this would have captured the intricacies of the informal credit transactions, and the situation captured would have made visualization of the plight of poorer, agriculturally less advanced states, easier.

The study revealed the dominant position of the money lender in a new guise – that of a commission agent, who interlinked the credit market with the output market. Credit is given on the collateral of sale of crop to the commission agent, who further sells it to government agencies. Payment on sale of crops is also made through commission agents, who deduct their loan amount before finally paying the cultivators. In this way, the commission agents have displayed a greater foresight than institutional sources, by not insisting on land as a collateral. The rates of interest charged are exorbitant, but the cultivators are forced to pay it, because institutional credit is just not in adequate supply. To make matters worse, cumbersome procedures are involved in obtaining a loan from commercial/co-operative banks. The reform measures, particularly the ones involving a redefinition of the priority sector and allocation of funds for this sector, has added fuel to fire. The result is constant exploitation of cultivators, with many of them resorting to end their lives when they can no longer bear the burden of debt. And if this is happening in a region which is agriculturally the most advanced, where official stipulations regarding grant of credit to agriculture is not only met, but surpassed, the plight of poorer states is not difficult to visualize.

Banking sector reforms did not intend to make the situation worse. The intention was sincere, and aimed at making banks more viable, though not through deliberate neglect of priority sector. But the steps taken have proved to be inadequate, with the result that the sector which needed the maximum attention ended up receiving the minimum. As mentioned elsewhere, a few lessons could be drawn from the

Grameen Bank of Bangladesh, and Indonesian rural credit institutions. Self Help Groups (SHGs) would be step forward in that direction. Keeping in view the indispensable, though highly undesirable, services of the commission agents, the government could involve them in the lending process and collection of repayment for the institutions, but not forget to keep a strict vigil on their dealings, and monitor then continuously. The politicization of credit institution should be done away with, and loan-waivers should strictly not be implemented. However, nothing short of a total change in the mind set – both of the authorities and the common man – and a new code of social purpose, can remedy the situation.

TABLE 1

DISTRIBUTION OF HOUSEHOLDS AND OWNED AREA ACCORDING TO SIZE GROUP OF HOLDINGS IN THE SURVEY VILLAGES IN PATIALA AND AMRITSAR DISTRICTS.

Size-group of Holdings (Acres)	No. of Households		Percentage of Households in the group		Percentage of Area Owned	
	Patiala	Amritsar	Patiala	Amritsar	Patiala	Amritsar
Landless	29	17	16.02	9.44	-	-
Upto 2.5	25	48	13.81	26.67	2.96	8.60
2.51-5.0	39	62	21.55	34.44	11.21	34.27
5.01-10.0	41	36	22.65	20.00	22.55	32.48
Above 10	47	17	25.97	9.44	63.28	24.66
Total	181	180	100	100	100	100

Source : Field Survey

TABLE - II

PATTERN OF TENANCY ACCORDING TO SIZE GROUP OF HOLDINGS

Size-group of Owned Holdings (Acres)	No. of Households						Area Rented in (Acres)	
	Wholly Owned		Partly Owned and Partly Rented		Wholly Rented			
	Patiala	Amritsar	Patiala	Amritsar	Patiala	Amritsar	Patiala	Amritsar
Landless	-	-	-	-	3 (100)	17 (100)	6 (1.42)	97 (35.47)
Upto 2.5	11 (13.09)	28 (22.4)	13 (19.12)	15 (13.16)	-	-	51 (12.03)	55.5 (20.29)
2.51-5.00	27 (27.38)	50 (24.8)	13 (25.0)	17 (13.16)	-	-	49.5 (21.77)	83.0 (12.80)
Above 10	23 (31.14)	16 (40.0)	25 (19.12)	1 (44.74)	-	-	225 (11.68)	3.0 (30.35)
5.01-10.00	23 (27.38)	31 (24.8)	17 (25.0)	5 (13.16)	-	-	92.25 (21.77)	35.0 (12.8)
Total	84 (100)	125 (100)	68 (100)	38 (100)	3 (100)	17 (100)	423.75 (100)	273.5 (100)

Note : 1. Figures in parentheses are percentages.
2. '–' implies Nil.
Source : Field survey.

TABLE-III

NUMBER OF HOUSEHOLDS BORROWING FROM DIFFERENT SOURCES

Patiala					
Size-group of Holding (Acres)	**Banks**	**Co-operatives**	**Private Lenders**	**Non-borrowers**	**Total**
Landless	5 (13.89)	4 (11.11)	21 (58.33)	6 (16.67)	36 (100)
Upto 2.5	2 (4.65)	17 (39.53)	23 (53.49)	1 (2.33)	43 (100)
2.51-5.00	8 (11.11)	30 (41.67)	31 (43.05)	3 (4.17)	72 (100)
5.01-10.00	10 (12.66)	29 (36.71)	37 (46.82)	3 (3.80)	79 (100)
Above 10	19 (19.79)	33 (34.38)	44 (45.83)	-	96 (100)
Amritsar					
Landless	-	5 (29.41)	12 (70.59)	-	17 (100)
Upto 2.5	1 (2.00)	19 (38.00)	27 (54.00)	3 (6.00)	50 (100)
2.51-5.00	7 (8.97)	28 (35.90)	35 (44.87)	8 (10.26)	78 (100)
5.01-10.00	5 (11.63)	16 (37.21)	20 (46.51)	2 (4.65)	43 (100)
Above 10	3 (12.5)	11 (45.83)	9 (37.5)	1 (4.17)	24 (100)

Note : Figures in parentheses are percentages.
Source : Field survey.

TABLE – IV

NUMEBR OF HOUSEHOLDS INVOLVED IN VARIOUS TYPES OF INTERLINKED CREDIT TRANSACTIONS IN THE INFORMAL CREDIT MARKET

Patiala										
			Type of Linkage with							
Size of Holding (Acres)	**No. of House holds**	**Source of Borrowing**	**Land**	**Labour**	**Input**	**Output**	**Both input & output**	**None**	**Mode of Lending**	**Mode of Repayment**
Landless	29	Landlord C.A.	-	17	-	2	1	1	Cash, Grain	Labour, Crop
Upto 2.5	25	C.A. Landlord	-	1	-	16	5	1	Cash, Input	Crop, Cash Labour
2.51-5.00	39	C.A.	-	-	-	25	5	2	Cash, Input	Crop, Cash
5.01-10.00	41	C.A.	-	-	-	32	3	1	Cash, Input	Crop, Cash
Above 10	47	C.A.	2	-	-	43	1	-	Cash, Input	Crop, Land Mortgage
Total	181 (100)		2 (1.10)	18 (9.95)	-	118 (65.19)	15 (8.29)	5 (2.76)		
Amritsar										
Landless	17	C.A.	-	-	-	4	5	3	Cash, Input	Cash, Crop
Upto 2.5	48	C.A.	2	-	-	12	5	8	Cash, Input	Cash, Crop
2.51-5.00	62	C.A.	4	-	-	24	7	1	Cash, Input	Crop
5.01-10.00	36	C.A.	1	-	-	18	0	-	Cash, Input	Crop
Above 10.00	17	C.A.	-	-	-	8	1	-	Cash, Input	Crop
Total	180 (100)		7 (3.89)	-	-	66 (36.67)	18 (10.00)	12 (6.67)		

Note : 1. Figures in parentheses are percentages.
2. '–' implies Nil.
3. C.A. means commission agents (arhtiyas)

Source : Field survey.

TABLE – V

EXTENT OF INTERLINKED TRANSACTIONS IN THE INFORMAL CREDIT MARKET

Patiala

Size of Holding (Acres) (1)	No. of Household in the group (2)	No. of borrowers with interlinked transactions (3)	No. of borrowers with non-linked transaction (4)	No. of interlinked borrowers getting formal loans also (5)	No. of non-linked borrowers getting formal loans also (6)	Non-borrowers from any source (7)	No. of borrowers borrowing only from formal source (8)
Landless	29	20 (68.97)	1 (3.45)	7 (35)	-	6	2
Upto 2.5	25	22 (88)	1 (4.00)	17 (77.27)	-	1	1
2.51-5.00	39	30 (76.92)	2 (5.12)	26 (86.67)	2	3	4
5.01-10.00	41	36 (87.80)	1 (2.44)	28 (77.78)	1	3	1
Above 10	47	44 (93.62)	-	34 (77.27)	-	-	3
Total	181	152 (83.98)	5 (2.76)	112 (73.68)	3	13	11
Amritsar							
Landless	17	8 (52.94)	3 (17.65)	1 (11.11)	-	-	5
Upto 2.5	48	19 (39.58)	8 (16.67)	6 (31.58)	2	3	18
2.51-5.00	62	35 (56.45)	1 (1.61)	6 (17.14)	-	8	18
5.01-10.00	36	19 (52.78)	-	6 (31.58)	-	2	15
Above 10	17	9 (52.94)	-	5 (55.55)	-	1	7
Total	180	91 (50.56)	12 (6.67)	24 (26.37)	2	14	63

Note : 1. Figures in parentheses in columns 3 and 4 are percentage of figures in column 2.
2. Figures in parentheses in column 5 are percentages of figures in column 3.
Source : Field survey.

TABLE – VI

WEIGHTED MEAN RATES OF INTEREST CHARGED ACCORDING TO LOAN SIZE AND LAND SIZE (DEVELOPED VILLAGES- PATIALA)

(Per cent per annum)

Land size (Acres)/Size of Loan (Rs.)	**Upto 2.5**	**2.51-5**	**5.01-10**	**10.01-25**	**Above 25**	**Mean of land owing Households**
Upto 10,000	27.86	32.14	-	-	-	30
10,000 to 20,000	27.27	30	26.25	-	-	27.63
20,000 to 50,000	-	28.44	24	-	-	25.82
50,000 to 1,00,000	27.98	28.79	25.36	25.58	-	26.24
1,00,000 to 2,00,000	-	24	30	27.35	27.86	28.03
Above 2,00,000	-	-	-	24	36	28.44
Mean	27.91	27.56	27.67	26.26	30.70	

Note : -implies non-borrower in the particular category.
Source : Field survey.

TABLE – VII

WEIGHTED MEAN RATES OF INTEREST CHARGED ACCORDING TO LOAN SIZE AND LAND SIZE (LESS DEVELOPED VILLAGES- PATIALA)

(Per cent per annum)

Land size (Acres) / **Size of Loan (Rs.)**	**Upto 2.5**	**2.51-5**	**5.01-10**	**10.01-25**	**Above 25**	**Mean of land owing Households**
Upto 10,000	38.75	35.94	35.31	-	-	37.15
10,000 to 20,000	36	32.79	36	31.36	-	33.37
20,000 to 50,000	35.70	31.90	31.01	30.40	-	31.66
50,000 to 1,00,000	36	-	29.68	27	-	28.80
1,00,000 to 2,00,000	-	30	24	35.04	30	31.91
Above 2,00,000	24	-	30	26.46	29.45	28.24
Mean for total loans	35.35	32.08	29.73	30.02	29.63	

Note : implies non-borrower in the particular category.
Source : Field survey.

TABLE-VIII

WEIGHTED MEAN RATES OF INTEREST CHARGED ACCORDING TO LOAN SIZE AND LAND SIZE (PERCENT PER ANNUM - AMRITSAR)

Land size (Acres) → / Size of Loan (Rs.) ↓	Land less	Upto 2.5	2.51 to 5.0	5.01 to 10.0	10.01 and above	Mean of land owing Households
Less-developed Villages						
Upto 5000	36	40.25	-	-	-	38.15
5000 to 10,000	33	36.00	36.00	36.00	-	35.40
10,000 to 15,000	36	36.00	40.00	36.00	36.00	37.65
15,000 to 20,000	36	-	40.00	40.00	-	38.75
20,000 to 50,000	36	33.23	36.00	36.20	36.00	35.25
50,000 to 1 lakh	-	-	-	-	-	-
Above 1 lakh	-	-	-	-	-	-
Developed Villages						
Upto 5000	-	34.69	36.00	-	-	34.15
5000 to 10,000	-	-	34.42	36.00	36.00	34.81
10,000 to 15,000	-	-	36.00	32.40	30.00	33.90
15,000 to 20,000	-	30.00	36.00	-	36.00	34.75
20,000 to 50,000	30.00	36.00	-	-	27.22	29.16
50,000 to 1 lakh	-	-	36.00	24.00	-	31.05
Above 1 lakh	-	-	17.33	-	-	17.33

Note : '–' Implies non-borrower in the particular category.

TABLE – IX

WEIGHTED MEAN INTEREST RATES PAID BY LANDLESS LABOURERS

	Weighted Mean Rate of Interest		
Loan Size (Rs.)	**Stipulated**	**Implicit**	**Effective**
Upto 10,000	39	41.57	80.57
10,000 to 20,000	38.74	15.64	54.38
20,000 to 40,000	34.10	11.52	45.62
Above 40,000	36	1.56	37.56

Source : Calculated from field survey.

TABLE – X

TOTAL CREDIT DEMAND OF SAMPLE HOUSEHOLDS (Rs.)

Size-group of owned holding (Acres	**Patiala**	**Amritsar**
Landless	550747	691391
Upto 2.5	1052238	461504
2.51 – 5.00	1773948	2459331
5.01 – 10.00	7182687	1432578
Above 10	4886786	730287
Total	13849806	5775091

Source : Calculated from field survey.

TABLE – XI

SUPPLY OF FORMAL CREDIT AS PERCENTAGE OF DEMAND FOR CREDIT

Size-group of owned holding (Acres	Patiala	Amritsar
Landless	10.77	14.58
Upto 2.5	27.12	61.93
2.51 – 5.00	49.51	41.43
5.01 – 10.00	24.96	40.07
Above 10	75.11	67.75
Total	47.85	43.67

Source : Calculated from field survey.

TABLE – XII

UTILIZATION OF INFORMAL CREDIT BY SAMPLE HOUSEHOLDS (PERCENT)

Size-group of owned holding (Acres	Productive Purpose		Consumption Purposes	
	Patiala	Amritsar	Patiala	Amritsar
Landless	4.28	49.64	64.11	50.36
Upto 2.5	70.23	47.29	29.77	52.71
2.51 – 5.00	51.41	48.74	45.92	51.26
5.01 – 10.00	50.66	81.50	48.26	18.50
Above 10	68.95	71.18	29.29	28.82
Total	63.03	57.14	36.36	42.86

Note : The percentages for production and consumption in case of Patiala may not add upto 100, because it excludes utilization of credit for repayment of old debt of cooperative societies.

Source : Calculated from field survey.

REFERENCES

Aleem, I. (1990), "Imperfect Information, Screening and the Costs of Informal Lending : A Study of a Rural Credit Market in Pakistan", *The World Bank Economic Review,* Vol. 4, No. 3, pp. 329-49.

Association for Democratic Rights (2000), *Punjab De Pendu Khetar Vich Aatam Hatiyavaan : A Report* (Punjabi).

Bardhan, P.K. (1984), *Land, Labour and Rural Poverty : Essays in Development Economics,* Oxford University Press, Delhi.

Bardhan, P.K. and Rudra, A. (1978), "Interlinkage of Land, Labour and Credit Relations : An Analysis of Village Survey Data in East India", *Economic and Political Weekly,* Vol. 13, Annual Number, February.

Basu, K. (1983), "The Emergence of Isolation and Interlinkage in Rural Market", *Oxford Economic Papers,* Vol. 35, No. 2, pp. 262-80.

Basu, K. (1984), "Implicit Interest Rates, Usury and Isolation in Backward Agriculture", *Cambridge Journal of Economics,* Vol. 8, No. 2, pp. 145-59.

Bell, C. (1988), "Credit Markets and Interlinked Transactions", in Chenery, H. and Srinivasan, T.N. (eds.), *Handbook of Development Economics,* Vol. I, Elseneia Science Publishers, B.V.

Bell, Clive and T.N. Srinivasan (1989), "Interlinked Transactions in Rural Markets : An Empirical Study of Andhra Pradesh, Bihar and Punjab", *Oxford Bulletin of Economics and Statistics,* Vol. 51, No. 1, pp. 73-83.

Bhaduri, A. (1973), "A Study in Agricultural Backwardness under Semi-Feudalism", *Economic Journal,* Vol. 83, No. 1, pp. 120-37.

Bhaduri, A. (1977), "On the Formation of Usurious Interest Rates in Backward Agriculture," *Cambridge Journal of Economics,* Vol. 1, No. 4, pp. 3412-52.

Bliss, C.J. and N.H. Stern (1982), *Palanpur : The Economy of an Indian Village,* Oxford University Press, New Delhi.

Bottomley, A. (1963), "The Premium for Risk as a Determinant of Interest Rates in Underdeveloped Rural Area", *Quarterly Journal of Economics,* Vol. 72, No. 4, pp. 637-47.

Bottomley, A. (1975), "Interest Rate Determination in Underdeveloped Rural Areas", *American Journal of Agricultural Economics,* Vol. 57, No. 2, pp. 279-91.

Braverman, A. and Gausch, J.L. (1984), "Capital Requirements, Screening and Interlinked Sharecropping and Credit Contracts," *Journal of Development Economics,* Vol. 14, pp. 359-74.

Darling, M. (1925), *The Punjab Peasant in Prosperity and Debt,* Oxford University Press, London.

Dasgupta, R. (2002), "Priority Sector Lending : Yesterday, Today and Tomorrow", *Economic and Political Weekly,* Vol. XXXVIII, No. 41, Oct. 12-18, pp. 4241-2.

Dreze, J. and Mukherjee (1987), "Labour Contracts in Rural India : Theory and Evidence", *Discussion Paper* 7, Development Research Programme, London School of Economics.

Economic and Statistical Organisation (2002), Statistical Abstract of Punjab, Govt. of Punjab.

EPW Research Foundation (2002), "Money, Banking and Finance : Special Statistics-31", *Economic and Political Weekly,* Vol. XXXVII, No. 5, Feb. 2-8, pp. 483-508.

EPW Research Foundation (2003), "Money, Banking and Finance : Special Statistis-33", *Economic and Political Weekly,* Vol. XXXVIII, No. 8, Feb. 22-28, pp. 831-48.

Floro, S.L. and Yotopoulos, P.A. (1991), *Informal Credit Markets and the New Institutional Economics : The Case of Phillipine Agriculture,* Westview Press, Inc., Boulder.

Gangopadhyay, S. and Sengupta, K. (1987), "Usury and Collateral Pricing : Towards an Alternative Explanation", *Cambridge Journal of Economics,* Vol. 11, No. 1, pp. 47-56.

Ghate, P.B. (1992). "Interaction between the Formal and Informal Financial Sector : The Asian Experience," *World Development,* Vol. 20, No. 6, pp. 59-72.

Ghose, A.K. and Saith, A. (1976), "Indebtedness, Tenancy, and the Adoption of New Technology", *World Development,* Vol. 4, No. 4, pp. 305-19.

Gill, Anita (2000), *Rural Credit Markets : Financial Sector Reforms and the Informal Lenders,* Deep and Deep Publications, New Delhi.

Griffin, K. (1974), *The Political Economy of Agrarian Change,* Macmillan Publishers, London.

Hanumantha Rao, C.H. (2003), "Reform Agenda for Agriculture", *Economic and Political Weekly,* Vol. XXXVIII, No. 7, Feb. 15-21, pp. 615-20.

Hoff, K. and Stiglitz, J.E. (1990), "Imperfect Information and Rural Credit Markets – Puzzles and Policy Perspectives", *The World Bank Economic Review,* Vol. 4, No. 3, pp. 235-50.

Jones, W.O. (1980), "Agricultural Trade within Tropical Africa : Achievements and Difficulties", in Bates, R.H. and Lofchia, M.F. (eds.), *Agricultural Development in Africa : Issues of Public Policy,* Praeger, New York.

Kaur, Gian (2002), "Role of Informal Rural Financial Markets in Punjab– A Case Study", *Occasional Paper* submitted to NABARD, Department of Economic Analysis and Research, Mumbai.

Kutty, H. (1988), "Coconut Marketing in Kerala," M.Phil Dissertation, *Centre for Development Studies,* Trivandrum.

Lipton, M. (1976), "Agricultural Finance and Rural Credit in Poor Countries", *World Development,* Vol. 4, No. 7.

Long, M. (1968), "Interest Rates and the Structure of Agricultural Credit Markets", *Oxford Economic Papers,* Vol. 20.

Pant, C. (1980), "Exploitation and Interrelated Tenancy and Credit Transactions", *Indian Economic Review,* Vol. XV, No. 4, pp. 243-53.

Rao, T.V.S. and Subramanyam, E.V.R.S. (1983), "Interlocking of Credit and Product Markets and its Impact on Agricultural Productivity", *Proceedings of the International Workshop,* 24-28, October, ICRISAT Centre, India, pp. 169-76.

Report of the Committee on the Financial System (Narasimham Committee Report), 1991.

Reserve Bank of India (1954), *All India Rural Credit Survey,* Vol. 2, The General Report, Bombay.

Sarap, K. (1986), *Small Farmers' Demand for Credit in Orissa,* Ph.D. Dissertation submitted to University of Delhi, India.

Sarap, K. (1990), "Factors Affecting Small Farmers' Access to Institutional Credit in Rural Orissa, India", *Development and Change,* Vol. 21, No. 2, pp. 281-307.

Sarap, K. (1990), "Interest Rates in Backward Agriculture : The Role of Economic and Extra Economic Control", *Cambridge Journal of Economics,* Vol. 14, pp. 93-108.

Sarap, K. (1991), *Interlinked Agrarian Markets in Rural India,* Sage Publications, New Delhi.

Siamwall, A. *et al.* (1990), "The Thai Rural Credit System : Public Subsidies, Private Information, and Segmented Markets," *The World Bank Economic Review,* Vol. 4, No. 3, pp. 271-98.

Srinivasan, T.N. (1979), "Bonded Labour Contracts and Incentives to Adopt Yield-Raising Innovation in Semi-Feudal Agriculture", *Economic Journal*, Vol. 89, pp. 416-19.

Swaminathan, M. (1991), "Segmentation, Collateral Undervaluation and the Rate of Interest in Agrarian Credit Markets : Some Evidence from Two Villages in South India", *Cambridge Journal of Economics*, Vol. 15, pp. 161-78.

Wharton, C. (1962), "Marketing, Merchandising and Moneylending : A Note on Middlemen Monopsony in Malaya," *Malayan Economic Review,* Vol. 7, October.