

## ECONOMETRIC ANALYSIS OF INTERLINKAGES AMONG LANDLESS LABOURERS

### 5.1 Introduction

The landless agricultural labourers are the most vulnerable and neglected section of rural economy. Their income is low and employment irregular. Since they possess no specialised skill or training they hold no lien on their existing employment. Socially, they therefore form the weaker section of the community, and being unorganised, cannot fight for their rights. Because of all these reasons their economic lot has failed to improve in five decades of post-Independence economic development.

Since access to the organised credit market is dependent mostly on the ownership of land for collateral, landless labour households are by and large excluded from this market. Moreover, the formal credit agencies do not provide consumption loans which is urgently needed by the landless labour households in times of crisis. Due to the lack of alternative source of credit, the landless agricultural labourers very often depend on informal sources on relatively adverse terms and conditions. The landless labour household which do not generally have non-labour assets that can be used as collateral, may opt to link their labour services with the creditor while borrowing from him.

The present chapter deals with the terms and conditions of borrowing of the landless agricultural labour households in the informal credit market with special attention to credit-labour linkages. It also examines the extent of exploitation if any, in linked borrowing as contrasted to non-linked borrowing.

The analytical methodology to be pursued evaluates loan-based exploitation/concession in terms of (effective) interest rates and mark-up or mark-downs on this. Over three econometric exercises, qualitative variables are gradually introduced in order to make a disaggregated analysis of credit-labour linkage possible.

### 5.2 Channels of Creditor-Control

The private money-lenders exercise various kinds of controls over the landless agricultural labourers of the less developed countries. The existing theoretical models provide three channels of control, the rate of interest, the size of loan and the period of repayment.

Some authors (Bhaduri, 1977; Prasad, 1974) have tried to explain the factors underlying the exceptionally high interest rates in a poor agrarian economy. A poor landless borrower in the informal credit market generally has no access to the formal credit market because the collateral he offers is unacceptable in the formal credit market. This in turn, gives certain 'monopoly power' to the rural money-lenders to whom his collateral is acceptable. Since there is a highly personalised relation between the lender and the borrower in a rural economy, the lender can easily secure the collateral from the borrower in the event of a default. It is assumed in these models that only the defaulted principal is recovered from the borrower through the transfer of collateral. Gongopadhyay and Sengupta (1989)

criticised the model by arguing that with so much of monopoly power over the borrower, the lender could recover not only the defaulted principal but also defaulted interest.

However, rate of interest is taken as the only control variable in these models. But according to Borooah (1980), the size of loan is an additional control variable to the lender in conjunction with the rate of interest charged on the loan. For example, the lender may reduce the rate of interest to encourage the borrower to take larger loans and default.

Besides the rate of interest and the size of loan, Sarap (1991) assumed another instrument of control, such as, period of repayment. Without changing the rate of interest, the lender may stipulate a short repayment period in the loan contract. This type of loan contract may be accepted by the borrower if the demand for loan is extremely inelastic<sup>1</sup> and when there is no alternative source of borrowing. In this case, the borrower loses the whole of his collateral if he fails to repay the loan within the short period.

Apart from the above-mentioned direct means of control, the lender may also exercise an indirect way of control in the traditionally backward rural setting. The lender may establish control over the borrowers' labour services. In other words, the lender can guarantee the recovery of loan by interlinking credit contracts with the labour services of the borrowers. The borrowers who do not have non-labour assets which can be used as suitable collateral, may be in a position to renegotiate loan by future promise of labour service. The necessity to pledge this non-marketable collateral to lenders provides the lender the opportunity to offer loan to the borrowers combining transactions in two markets simultaneously. Thus, credit market tend to interlink with labour market.

The phenomenon of bonding of labour service to the sources of credit has attracted a great deal of social and political debate. It assumes special significance when the valuation put on this 'tied' labour is less than the market price of labour during the period of repayment.

According to Chattopadhyay and Bhattacharyya, "The essential features of the interlinkage approach, however, are associated with the appropriation of surplus not only in the form of ground-rent and usury"<sup>2</sup>, but also through extraction of "unpaid labour services of the labourers by the landlords through providing loans."<sup>3</sup> The existence of such 'surplus appropriation' is, however, an empirical question, to which we now turn.

We have used data for a sample of 40 landless labour households selected randomly from 12 villages. We have interviewed both the landless agricultural labourers and the money-lenders in the sample villages with whom the landless labour households had credit transactions.

### 5.3 Sample Characteristics

Cooch Behar did not previously have a class of landless agricultural labourers as in other districts of West Bengal. Each cultivating family had at least some land for itself. With the influx of a large number of Bangladeshi migrants, a small class of landless agricultural labourer has grown.<sup>4</sup> Influx of Bengali migrants displaced from the neighbouring state of Assam has also swelled the number of landless agricultural labourer in Cooch Behar in recent years.<sup>5</sup>

A distribution of the landless labour households by caste and community reveals that a majority of them are muslim.

**Table 5.1**  
**Caste and Community-wise Distribution of Landless Agricultural Labourers**

Region	Community By Caste/Religion	Number of Households	Percentage
I	Mohammedan	16	66.67
	Scheduled Caste (H)	7	29.17
	Other (H) Caste	1	4.16
Total	-	24	100.00
II	Mohammedan	7	43.75
	Scheduled Caste	4	25.00
	Other (H) Caste	5	31.25
Total	-	16	100.00

**Source : Field Investigation**

Table 5.1 shows that two-third of the labourers in Region-I belong to muslim-sub-population. Scheduled Castes (H) however constitute less than one-third of the labourers, while the percentage for 'other Hindu castes' is negligible. The dominance of muslim labourers is also observable in Region-II. However, the importance of Scheduled Caste (H) among the labourers is slightly lower in Region-II than that of other (H) caste. The overall sample is therefore dominated in number by muslim, followed by Scheduled Casts(H), followed by other Hindu castes. The landless labourers thus form the weakest section of the village community.

Distribution of the labourers according to the level of education also indicates their poverty and backwardness. The following Table 5.2 shows that majority of the landless labourers in our study region are illiterate.

**Table 5.2**  
**Distribution of Landless Agricultural Labourers**  
**According to Levels of Education**

Region	Level of Education	Number of Households	Percentage
I	(a) Illiterate	23	95.83
	(b) up to primary	1	4.17
Total	-	24	100.00
II	(a) Illiterate	14	87.50
	(b) up to primary	2	12.50
Total	-	16	100.00

**Source : Field Investigation**

The above table shows that around 96 percent of labourers in Region-I and 87 percent in Region-II are illiterate. For the two sample regions as a whole, 37 labourers are illiterate which constitute 92.5 percent of the total sample. The extent of absolute illiteracy is therefore highest among the landless labourers compared to other sections of farm households. One labourer in Region-I and two in Region-II reported having studied up to primary level.

The community and educational profile of the labour households seems to indicate that they enjoy inferior social status compared to the landowning households. In fact, they occupy the weakest socio-economic position *vis-a-vis* the landowning households in a rural set-up.

### 5.3.1 Typology of Agricultural Labourers

One of the important factors accounting for heterogeneity among agricultural labourers is the time duration of their labour-contract. Accordingly, we can distinguish between casual, semi-attached and attached labourers as defined below .

A labourer making a contract with a particular employer only for one day at a daily wage rate is called *casual labourer*. He is paid, normally, at the end of day's work. His contract for one day with one employer does not affect his next day's contract with other employer. At the other extreme, we have *attached labourers* (or Farm Servants) whose duration of work is usually one year. During that stipulated period he is exclusively attached to his employer. We have also found labour contracts which are intermediate between the two extreme cases of daily contracts with casual labourers and annual contracts with attached labourers. Casual labourers sometimes get involved in contracts or informal agreements with employers for a particular piece of work (e.g. planting or harvesting of paddy) or a given duration. The labourers continue to work with the same employer till the agreed piece of work is over. The labourers are free to work with any other employer for the rest of the time. This type of temporary labour attachment may be regarded as extension of the daily contract with casual labourers. In the present study, we have described them *semi-attached labourers*. The difference in this intermediate contract from day-to-day casual or annual attached labour contract is not simply one of duration, but more significantly, is in terms of freedom to work for more than one employer in a given agricultural year. Another difference was also found in respect of nature of work done. While the casual and semi-attached labourers have reported to have performed only farm-work, attached labourers performed farm as well as non-farm activities of the employer.

### 5.3.2 Rural Credit and Landless Agricultural Labourers

In our sample, 31 landless agricultural labourers of the total (i.e. 77.5 percent) had obtained credit from informal credit sources, of which 26(i.e. 83.87%) had borrowed from large cultivators and 5 (i.e. 16.13 percent) from village shopkeepers. The lenders reside in the sample villages and have a face-to-face relationship with the borrowers. Only 6 labour households (i.e. 15 percent of the total ) obtained institutional credit (DRDA loan) during the reference year. Despite the launching of various anti-poverty schemes such as IRDP, RLEGP, NREP, JRY, etc. for the welfare of the rural poor, the involvement of landless labourers in the informal credit market remains very high for the reasons already mentioned in Section 5.1 and that too is a reflection of their perpetual poverty and backwardness.

We found the following types of contractual arrangements between the borrowers and the lenders in the informal credit market to be prevalent in our survey area :

**Contractual Loan Arrangement Commonly Prevalent in  
Cooch Behar District**

Sources of Borrowing	Contractual Arrangement	Typology of Labourers
Borrowing from Larger Cultivators	Linked	(i) Semi-attached Labourers (ii) Attached Labourers
	Non-linked	Casual Labourers
Borrowing from Village Shopkeepers	Non-linked	Casual Labourers

The terms and conditions of borrowing from these two sources are now discussed in turn.

#### 5.4 Borrowing from Larger Cultivators

The larger cultivators (cultivating more than 5.00 acres of land) are an important source of credit to the landless agricultural labourers in our study area. They are not professional money-lenders. They often advance loans to the labourers with a view to interlinking their labour services. In some cases, however, the cultivators are reported to have given unconditional loans to the labourers where the loan-contracts are not linked to the labour services of the borrowers. The role of the cultivators as a lender of credit to the landless agricultural labourers in the informal credit market may now be discussed below .

##### 5.4.1 The Case of Semi-attached Labourers

We have noted earlier that semi-attached labourers are basically casual labourers who have entered into a temporary attachment with the employer on a number of successive days for a particular piece of work. An important feature of this type of labour attachment is the link between the consumption credit and tying up of labour services with the employer-creditors. The labourers take consumption loans in cash or kind (paddy) from the prospective employers on promising to do a particular piece of work at a future date. These contracts occur for such operations as ploughing, transplantation, harvesting, etc. The labourers continue to work for the same employer on a number of successive days till the agreed piece of work is over. The larger cultivators generally enter into such contracts with more than one casual labourers to complete the entire agricultural operation within a very short period. In our sample 18 landless labourers have obtained credit in advance from their prospective employers against future commitment of labour supply. The period of attachment with a particular employer does not exceed 13 days in succession at a time.

A number of factors may be pointed out which can influence the lender to go in for this type of labour-tying arrangement. Firstly, in order to finish the major agricultural operations within a short-time the larger cultivators put high premium on the quick and ready availability of labour. Secondly, the employer-creditor may also employ them at lower than market wage rate and thus reduce their own expenditure/ recruitment cost. The employer has a special incentive to lend money to the tied labourers, not only because recovery is easier but also because it cement the labour-tying arrangements. From the labourer's point of view, tying of labour services may be necessitated by the consumption and medical expenditure needs in the slack season. It also provides assured employment for a length of time, however short it may be. This natural mutual advantage leads to its formalisation into seasonal contracts. The information on credit-labour linkage relating to the semi-attached labourers is given in the following table .

**Table 5.3**  
**Linking of Credit and Labour Contracts : Semi-attached Labourers**

Region	Number of Labourers	Number Receiving Credit Against Future Commitment of labour supply	Number Rendering Labour Services		Number Providing Non-farm Services
			At MWR	Below MWR	
I	24	13(54.17)	8	5	-
II	16	5(31.35)	2	3	-
Total	40	18(45.00)	10	8	-

*Note : Figures in parentheses are percentages of row totals.*

*MWR = Market Wage Rate*

**Sources : Field Investigation**

It is observed from Table 5.3 that 13 labourers in Region-I and 5 labourers in Region-II obtained credit against future commitment of labour supply. The contracts stipulate that labourers must work on a number of successive days until a particular agricultural operation is over. It therefore appears that 54.17 percent of the landless labourers in Region-I and 31.35 percent in Region-II worked as semi-attached labourers for different agricultural operations with their employers in the reference year. Out of 13 semi-attached labourers in Region-I, 8 labourers have reported that they had received market wages at the time of work. Similarly, out of 5 semi-attached labourers in Region-II, 2 had received prevailing market wage. None among these 10 labourers did pay any interest (i.e. either implicit or explicit). But 5 labourers in Region-I and another 3 in Region-II reported having been paid wages below the market rates. In these cases, the payment of interest (implicit) takes the form of wage-cut. It should be noted that no other explicit (or stipulated) rate of interest was charged by the employer-creditors from any of the borrowing semi-attached labourers. We may further note that no semi-attached labourer has reported to have rendered any paid, underpaid or non-paid non-farm services for their employers.

One may, therefore, find the existence of consumption loan when the relationship between the employer and the labourer takes the form of a contract leading to semi-attachment of the labourers. But consumption loan alone cannot explain such relationship between the employer and the labourers. Another factor is also present which works herein. There grows a long-standing social relationship between the employers and the labourers, as they live in the same village. Such a labourer takes consumption loan from a particular employer, he repays the loan in terms of labour service, takes the loan once again and repays and so on. This type of conventional loan transaction between the employer and the labourer is a common feature of a poor agrarian economy of our study area. The social relation between the employers and the labourers appears to be the basis of loan transaction between the two parties. To such an employer, this type of labourer is like a old and trusted servant, he is available in time, but is not a paid farm servant for the whole year. Under this circumstances, the labourers also have no propensity to move to another employer and work under him. For this reason, they work in the farm of their employer-creditors on priority basis. In the natural course of events, the labourers receive consumption loans as well as sympathetic consideration in times of distress and assured employment for a period of time from their employer-creditors.

We have seen in Table 5.3 that in most of the cases (10 out of 18 cases) the semi-attached labourers were paid according to the prevailing market wage rate and they did not pay any rate of interest. This interest-free lending is not a revelation in any form of generosity on the part of the larger cultivator - he lends money under this arrangement practically for securing his own future advantage. During the peak season the pressure of agricultural work-load becomes heavy. Consequently, larger

cultivators would have to face scarcity and uncertainty of agricultural labourers. In order to overcome this uncertainty, the employer advances consumption loan to a few agricultural labourers with a view to tying their labour services. A labourer also stretches his hand out for such loans. The only condition imposed under this system is that the loan-receiving labourers are liable to work in the farm of their employers as and when called for. This system costs less than engaging a farm servant in service on annual contract. A farm servant (attached labourer) would generally have to be employed on a fixed wage for a year. Moreover, he would get food and cloths from his employer. The expenditure on a farm servant may not be productive if he is not provided with sufficient work throughout the year. In this context, the attachment of agricultural labourers for particular piece-work (e.g. ploughing, transplantation, harvesting, etc.) through the provision of interest-free consumption loan is therefore beneficial to the employer. The average amount borrowed per labourer is only Rs. 64.83. These loans are short-term in nature. They were advanced 2 to 4 months before the actual work is done. Our survey results revealed that all such labourers managed to repay the loans during the course of a single agricultural season. These loan-based relations, did not in any way, lead to any debt-bondage of the labourers.

The landless labourers are generally very poor. They cannot provide any tangible collateral to secure loans, but loans are urgently needed by them in times of crisis. On this pretext, any attempt to charge explicit rate of interest by the cultivators would severely affect the economic condition of the borrowing labourers. However, the lender - cultivators are not observed to charge any explicit (or stipulated) rate of interest from the poor labourers. This seems to indicate that the extraction of 'surplus labour' through usurious rate of interest is not the objective of the cultivators of our sample area comprising mainly the local SC and local muslim. However, in certain cases of linked loans, an element of interest (implicit) arises in the form of wage-cut. However, this type of 'indirect' interest earning is the by-product in a labour-surplus poor agrarian economy. All the linked labourers facing wage-cut are migrant labourers who are relatively new settlers in the area. In our example, 10 semi-attached labourers who were paid at the prevailing market wage rate and hence did not pay any (implicit) rate of interest, 80 percent among them were 'local' of which 87.5 percent are local SC and the remaining 12.5 percent are local muslim. It therefore appears that the lender- cultivators generally prefer to offer interest-free linked loans to the local labourers who belong within the social system of the same village. Any entry of the migrant labourers into this kind of 'benevolent' interlocking arrangement is almost completely restricted. Out of 18 semi-attached labourers in our sample 10 are migrant labourers, of which 8 are paying (implicit) rate of interest and 2 labourers manage to get interest-free linked loans from the lender-cultivators. The nature of interlocking labour-arrangement therefore depends to a high degree on the existing social relations between the cultivator and the labourer in a peasant economy.

As observed in Table 5.3, 54.17 percent of the labourers in Region-I and 31.35 percent in Region-II have tied up their labour services with their employers for certain agricultural operations. Labour-linked credit transaction therefore seems to be higher in Region-I than in Region -II. Demand pressure during the peak agricultural operations may be expected to be higher in the relatively better irrigated Region-I, because those sub-marginal and marginal farmers who want to participate in the labour market would be busy with their own work during peak times. Similarly, in Region-I where HYV paddy (boro, a spring paddy) is cultivated, the profile of demand for labour is even higher, and will have a corresponding effect on the composition of hired labour. All these factors may influence the employers in Region-I to attach more labourers and to get work done on a contractual basis. It may be pointed out that all these contracts are oral in nature.

By using consumption efficiency hypothesis, M.R. Gupta (1987) has shown in his theoretical model that employers provide consumption loan to the labourers in the lean season for their own interest. Gupta argues that by supplying credit in the lean season the employers indirectly help to raise the labourers' efficiency level in the peak season. In our field work, however, we have observed that the purpose behind such loans are generally immediate i.e. most part of the loan is usually spent on medical treatment, or debt repayment and cannot therefore be tagged to future labour-efficiency.

The labour-tying arrangement is often cemented by (i) allotment of land for cultivation, (ii) allotment of homestead for residence and (iii) old or hereditary loans. But we have not come across any semi-attached labourer who has been provided with an allotment of land for cultivation or residence. No such labourer has reported old or hereditary loans as the basis of relationship with his employer. Semi-attached labourers are therefore largely free from influence of the employer-creditors. They are basically casual labourers who are employed on implicit contracts for a given piece of job or a given duration. They continue to work with the same employer till the agreed piece of work is over. The amount of loan taken is not very large and it is repaid within the contract period.

It may be noted that a borrowing casual labourer may enter into such implicit labour contract with the employer more than once during a given agricultural year. Depending on the number of times of attachment of a labourer during the reference year, we have classified the semi-attached labourers into three groups : Group A, B and C. In group A we include those labourers who were attached to their employers once in the reference year. Group-B includes those labourers who were attached twice by their employers. Finally, the labourers having their attachment thrice with their employers are included in group-C. The following Table 5.4 gives the total length of assured employment enjoyed by different categories of semi-attached labourers in the reference year.

**Table 5.4**  
**Total Length of Assured Employment by Different Categories of**  
**Semi-attached Labourers (1990-91)**

Region	Group	Number of Labourers in the Group	Number of Days of Assured Employment	Number of Days of Assured Employment per Labourer
I	A	4	37	9.25
	B	7	151	21.57
	C	2	73	36.5
Total	-	13	261	20.08
II	A	3	32	10.67
	B	2	36	18.00
	C	-	-	-
Total	-	5	68	13.6

**Source : Field Investigation**

Table 5.4 shows that group A, B and C in Region-I include 4,7 and 2 labourers respectively. The 13 semi-attached labourers in Region-I enjoyed 261 days of assured employment as a whole in the reference year. The number of days of assured employment per labourer is found to be 20.08 days in Region-I. Similarly, in Region-II, 3 labourers belong to group A and 2 labourers in Group-B. No

labourer belonging to group-C was found in Region-II. The total number of days of assured employment enjoyed by 5 semi-attached labourers in Region-II were 68 days in the reference year. The number of days of assured employment per labourer is therefore 13.60 days in Region-II. It seems to us that the number of days of assured employment per labourer is slightly higher in Region-I which is agriculturally more busier than Region-II. It therefore appears that the linked labourers not only get consumption loans in times of need, they also get assured employment for a length of time, however short it may be.

In the large-scale field survey conducted by Bardhan and Rudra (1978), 68 percent of the casual labourers in the sample villages of West Bengal had taken consumption loans from their employers against future commitment of labour. The results obtained from our field-investigation also lend support to this kind of labour-tying arrangement through the provision of consumption loans. This type of implicit contracts with labourers for future commitment of labour leads to gradual development of "futures market" in agricultural labour<sup>6</sup>.

We have made an enquiry into the economic status of the semi-attached labourers in our sample. The results are presented in the following tables.

**Table 5.5**  
Economic Status of Semi-attached Labourers

Semi-attached Labourers		Number	Percentage
1.	Who never had any land	7	38.89
2.	Who were tenants before but were evicted	1	5.56
3.	Who were farm servants before	1	5.56
4.	With other members of family working as casual labourers	6	33.33
5.	With other members of family working as farm servants	—	—
Total Number of Labourers		18	100.00

Note : Figures not additive .

Source : Field Investigation

**Table 5.6**  
Lean Season Occupation of Semi-attached Labourers

Occupation		Number	Percentage
1.	Sundry work outside the village	8	44.44
2.	Sundry work inside the village	11	61.11
3.	No Occupation	3	16.67
Total Number of Labourers		18	100

Note : Figures not additive .

Source : Field Investigation

Some important features about the economic status of the semi-attached labourers are emerging from the above tables (Table 5.5 & Table 5.6). Firstly, 38.89 percent of such labourers never had any land. This implies that more than 60 percent of such labourers had lost land in the past due to repayment of old debt or any other reasons. Secondly, 33.33 percent of such labourers had one or more members in their families working as casual labourers. This implies a lower worker-dependent ratio for the labourers in general. Thirdly, during the lean seasons in the year when the labourers do not have many employment possibilities in agriculture, they have reported to have done all kind of odd jobs inside or outside the village (Table 5.6). 61.11 percent of such labourers have done sundry works inside the village. They engaged themselves in earth-work, cutting grass etc. during lean season. 44.44 percent of the labourers reported having worked outside the village as *kamla* (daily labourer) during the lean seasons.

#### 5.4.2 The Case of Attached Labourers (Farm Servants)

Only the large cultivators (cultivating more than 7.50 acres of land) in the survey areas were found to keep farm servants to help in their agricultural work. The duration of contract of the attached labourers is usually one year. The actual period of work sometimes exceeds one year, the contract being renewed every year. The attached labourers are employed on a fixed wage which is paid partly at the end of the year and partly in some installments spread over the year. In addition to that, they receive meals every day and cloths once or twice in a year. In Cooch Behar, the attached labourers are locally known as *Batsara - Kamla*. The attached labourers are required to do all kinds of work both on the farm and outside the farm and the quantity of work is also not subjected to any limits. The number of days which the servant may take off as holidays is also negligible. There is no limit as to the number of hours of work that he may have to do during the course of the year.

Out of 40 landless agricultural labourers in our sample, 4 labourers have reported to have worked as attached labourers. In 3 out of these 4 cases, the duration of contract was one year. Only one labourer has reported having worked for his employer for 3 successive years. All the 4 attached labourers were local labourers of which 3 belonged to SC-community and one belonged to muslim community. They maintained a long-standing social relation with their employers.

The credit relation of the attached labourers with their employers may now be discussed.

(a) *Initial Loans* : Sarap (1991) in his study on rural Orissa has found that the attached labourers (farm servants) were given some loan in money or paddy in the initial period of employment. This was meant to help the newly employed labourer either to settle his past debt with the previous employer or to meet some immediate expenditure (like food). This interest-free initial loan helped in cementing the relationship between labourer and landlord. But we did not find a single case where the farm servant has been given loan at the initial period of employment. Unlike the semi-attached labourers, the attached labourers did not receive any loan from their employers in advance against future commitment of labour supply. Therefore, credit relation alone does not appear to be the basis of long-term labour attachment in our study area. Personal relationship between the employer and the labourer may go a long way in explaining the labour tying relations.

(b) *Subsequent Loans* : Although the attached labourers in our sample do not take any advance or initial loan from their employers, they take subsequent loans frequently to meet social and medical needs. All the 4 attached labourers had taken loans from their employers subsequent to joining the employer as attached labourers. The amount of loan varied from Rs. 40 to Rs. 87. The loan (which did not carry any rate of interest) borrowed by attached labourers from their employers was deducted from their annual payment at the end of contract period.

The dependence of a farm servant on his employer further increases when his family becomes dependent on the employer. Living in the homestead provided by the employer and / or cultivating land allotted by the employer is another way of dependence of the farm servant.

Table 5.7 shows that no attached labourers received allotment of land for cultivation from his employer. One labourer (who remained attached to his employer for 3 years) has been provided with the allotment of homestead land for residence. Three attached labourers reported that their family members worked occasionally as casual labourers for their employers. The degree of dependence of the attached

labourers is therefore seen to be higher than that of the casual or semi attached labourers in our sample who do not have any additional aspect of dependence on the employer - creditors except for the credit-support offered by the employers.

**Table 5.7**  
**Aspects of Dependence of**  
**Farm Servants on Employers**

Farm Servants	Number
1. Attached to the same employer for more than one year	1
2. Receiving allotment of land for cultivation	0
3. Receiving allotment of land for residence	1
4. With other members of the family working as casual labourers	3
Total Number of Farm Servants	4

*Note : Figures not additive.*

Source : Field Investigation

**Table 5.8**  
**Annual Remuneration of the**  
**Farm Servants**

Farm Servants	Annual Remuneration	Daily Wage
FS <sub>1</sub>	Rs. 2872	Rs. 7.87
FS <sub>2</sub>	Rs. 3158	Rs. 8.65
FS <sub>3</sub>	Rs. 3762	Rs. 10.31
FS <sub>4</sub>	Rs. 2465	Rs. 6.75

$$* \text{ Daily Wage} = \frac{\text{Annual Remuneration}}{365}$$

Source : Field Investigation

It is noteworthy that unlike the service of casual labourers the service of farm servants does not have a fixed price in the labour market. There are no standard wage rates for the farm servants. A great deal of variation is noticed among the wages paid to different farm servants in our sample. In each individual case there is a wage-basket consisting of some cash, some grains, some meals and snacks and some other payments in kind such as cloths, etc. We have undertaken imputation of all the kind payments to arrive at the annual remuneration of the farm servants (denoted respectively by FS<sub>1</sub>, FS<sub>2</sub>, FS<sub>3</sub>, and FS<sub>4</sub>) in Table 5.8 which reveals that the annual remuneration of the farm servants varies widely from case to case. The wage differences may reflect the difference in such factors as the age and capacity for work of the servant, quantity of work to be done and economic status of the employer, etc.

We have also calculated the daily wages for the farm servants (Table 5.8) by dividing the annual payments to the farm servants by the total number of working days, 365, in a year. While the daily wages earned by the casual labourers were found to vary between Rs. 18 and Rs. 22 in the reference year, the daily wages obtained by the farm servants were much lower in the range of Rs. 6.75 to Rs.10.31 only. It seems that the farm servants do pay a price for the security they enjoy in terms of lower wage rate per unit of time of work than a casual labourer. Of course, the annual income of farm servant is higher than that of casual labourer as the latter works only a fraction of the number of days in a year. Average annual income of the casual labourers in our sample is estimated at Rs. 2347 which is lower than the annual remuneration of all the farm servants.

#### 5.4.3 Non-linked Credit to Casual Labourers

Four casual labourers in our sample received non-linked loans from larger cultivators. Such loans are not tied in the sense that the borrowers are not required to repay the loan through their own labour services. The credit is highly personalised in nature i.e. the relation between the lender and the borrower

is highly personalised one. The loan is sanctioned against no securities and no interest is charged on the amount of loans advanced. Of course, the loan amount is not very high. The average amount of loan is Rs. 50 only. The credit is a short-term one - the average turn over period being roughly 4 months. In case of non-linked loans, the lenders are confident of the recovery of loans from the labour-borrowers. In an immobile rural community, where the news of wilful default by a borrower reaches most of the potential lenders quickly<sup>7</sup>, dishonouring a contract by a borrower means a loss of status which economists hardly emphasise. They are, however, extremely important in a village community. Even the poorest do not want to lose face by wilful default of a contract. As such, the labourers try to retain confidence of the lender by repaying the loan in time. We found that all the borrowers getting non-linked loans were 'local' labourers.

### 5.5 Borrowing from Village Shopkeepers

Although the cultivators are the most important and dominant source of credit to the landless agricultural labourers, in some cases however they report having received loan from village shopkeepers. The loan-giving business of such shopkeepers involves small amounts. The rate of interest charged is seen to be very high - it varies between 15-20 percent per month. The loan often takes the form of sale of goods (grocery items) on credit. Five casual labourers in our sample received kind loans from village shopkeepers. In such cases of lending, the lender do not demand any collateral-asset but insists on a guarantor who would provide accurate information about the creditworthiness of current and potential borrowers and thus guarantee repayment of the loan. In such cases, there will be involvement of a third party in the credit contract between the lender and the borrower. The potential employers of the casual labourers generally perform the role of the third party. Such types of loan arrangements may help the lender to screen the potentially creditworthy borrower from the others. As a result, he would be able to ascertain borrowers of doubtful ability to repay. Once he is sure of genuine borrowers, he may provide them credit (in kind) without insisting on a collateral or linking other cash or /services of the borrower with the credit contract. Of the five labourers receiving loan from shopkeepers, four are migrant and one is local labourer.

### 5.6 Graphical Analysis

A source-wise break-up of credit in the informal credit market would reveal that 83.87 percent of the indebted landless labourers in our sample had received loans from larger cultivators and the remaining 16.13 percent from village shopkeepers (Fig. 5.1). Cultivators are therefore the dominant source of credit to the landless agricultural labourers in our sample.

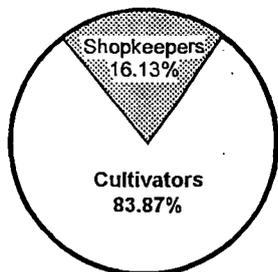


Figure 5.1:  
Sources of Informal Loan

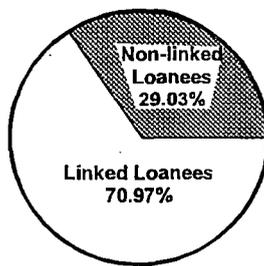


Figure 5.2 :  
Types of Loans

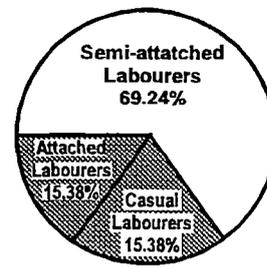


Figure 5.3 :  
Typology of Labourers Borrowing from Cultivators

We may further note that about 71 percent of the borrowing labourers had linked and only 29 percent had non-linked credit transactions in the informal credit market (Fig. 5.2). The incidence of linked transactions is therefore highest among the landless labourers compared to the pure owners and tenant

cultivators. A type-wise break-up of labourers borrowing from larger cultivators reveals that more than two-third are semi-attached labourers, the remaining share is equally divided between attached labourers and non linked casual labourers (Fig. 5.3).

The dominance of semi-attached labourers within the labour-linkage arrangements indicate that cultivator - creditors in the sample region give precedence to medium-term labour needs, having neither the capacity nor the work-load that would justify long-term attachment of labourer. Thus, the dominant factor in determining cultivator-demand for labour is seasonal in nature.

### 5.7 An Evolution of the Characteristics

The incidence of labour-tying observed in our study area should not be interpreted as representing stereo-type landlord-self relationship typical of feudal agrarian relations. An essential feature of feudalism recognised by different scholars is the extra-economic coercion that it involves. "A typical expression of such coercion would lie in the landlord possessing the legal power to compel him to work for him *gratis* or to serve him in many other ways, curtailing his individual liberty."<sup>9</sup> But we did not find a relation between the employer and the labourer which is extra-economic in nature. The belief that the attachment of labourers with a particular employer for a period of time robs the labourers of their freedom in the labour market and this constitutes an indicator of the continued prevalence of pre-capitalist relations - does not seem to be very much convincing. The fact that a labourer is under contract - whether formal or informal - does not tell us whether he is free or unfree. A free labourer is one who enters into a contract to work for a stipulated period of time for a certain employer but does not surrender his freedom. He can leave unconditionally at the end of the specified period. "Economic stringency may indeed compel a free labourer to agree temporarily to terms he does not consider favourable. But his basic right to refuse work or to seek alternative employment remains uncompromised."<sup>10</sup> The tied labourers (semi-attached and attached) in our sample are not unfree labourers as because they can leave the job unconditionally at the end of the contract period. The attachment of the labourers to their employers arises purely from economic consideration and not from non-economic coercive forces which are distinguishing features of feudalistic relation.

Labour-tying arrangement is often cemented by the provision of consumption loan. But the debtor-creditor relationship between a labourer and his employer "imposes no greater or no different curtailment of freedom than in other walks of life. Thus a farm servant who has taken a loan from his employer may not be free to leave that employer. But the same kind of restriction operates on any employee of a government enterprise or a capitalist farm who has taken a loan from, say, his provident fund account."<sup>11</sup> We do not, however, treat such a credit relation (between the employer and the employee) an example of 'feudal bondage'.

The relationship between the employer and the labourer is one of economic exchange between them. The period of contract is extremely specified. We found no outstanding debt relation which curtailed the individual liberty of the labourer over an indefinite period of time. During the course of field investigation it appears to us that credit relations are quite common in a poor peasant-oriented agrarian economy but it does not lead to 'debt-bondage' of the labourers. None of the labourers in our sample report such 'bondage' during our survey-work.

There is a tendency to treat annual contract of a farm servant an indicative of pre-capitalist attachment while the daily contract of the casual labourer as a more free and more capitalistic labour market. This appears to us to be extraordinarily fallacious. The duration of contract alone can not make any difference between capitalist and pre-capitalist relations between them.<sup>12</sup>

The preference for a long-term or permanent contract to a temporary one appears to be perfectly normal and rational behaviour in the sphere of the world outside agriculture. "From the point of view of the employee, the long-term contract assures a security, preference for which is accepted by all as perfectly reasonable. From the point of view of the employer it is an advantage to work with a person known for a long time and one who had had the opportunity of learning a job which is denied to the casual temporary employee. There is no reason why these considerations should not apply well to the employment of labourers by farmers."<sup>13</sup>

It is sometimes argued that the capitalistic development of Punjab agriculture and the success of Green Revolution in the state was made possible by extracting 'surplus labour' of the bonded migrant labourers from Bihar, dominated largely by the feudal power of Punjab landlords. The bonding of migrant labourers in Punjab reminds us the story of intolerable miseries suffered by the bonded labourers. The labourers are reported to have been locked with the cattle in the cattleshed and were physically assaulted by the employer to make them submit to the inhuman conditions.<sup>14</sup> But the type and mechanism of labour-tying represented in our sample reveals a completely different picture. The formerly princely state of Cooch Behar, now a district in West Bengal, is largely a peasant economy where the element of mutual help and cooperation often shapes the contractual relations among the lender-cultivators and the indebted labourers. Neither the large-scale capitalist farming of the Punjab-type nor the feudal (or semi-feudal) agrarian structure prevailing in Bihar would represent the agricultural scenerio of the district. Rather it is the natural outcome of the mutual interdependence and cohesiveness of a peasant economy. The cultivator's need for a readily available labour in the peak season and the labourers demand for cheap consumption loan - are both satisfied with this type of labour-tying arrangement. The employers do not use any extra-economic coercion and/or binding to curtail the free movement of the labourers.

Considering these divergences in sample characteristics from those alluded to in the literature, a deeper investigation of contractual arrangements and their consequences and characteristics in the sample region is necessitated.

### **5.8 A Micro -Study of Intra-Sample Variations in Interest Rates**

In this section we want to examine intra-sample variations in interest rates and try to indentify the factors which are responsible for such variations. Out of a total of 40 landless labourers in our sample, 31 are indebted labourers. We therefore take these 31 indebted labourers for the study of rate of interest. We expect from the evidence of other studies that the rate of interest will be lower for borrowers with higher loan size and higher economic status (reflected by per capita income). Moreover, there are some qualitative factors (like caste, religion and origination/residentary status of the labourers) which may have a bearing on intra-sample credit relationships. Other things remaining the same, a local labourer can get loan on favourable terms as compared to a migrant labourer who is a relatively new settler in the area. A determinate model of rate of interest may thus include both the qualitative and quantitative variables. Keeping this in mind, we have collected information from all the 31 indebted labourers regarding the size of loan, per capita income, condition of loan (whether linked), caste, religion and origination / residentary status. All these informations are presented in the Table 5.9 below.

**Table 5.9**  
**The Sample Data Set**

Sl. No.	Annualised Interest Rates	Loan Size	Nature of Credit Contract	Caste	Per Capita Income	Residentary Status	Loan Source
1.	0	45	Linked	SC	Rs. 570	Local	Cultivator
2.	0	30	Linked	SC	Rs. 533	Local	Cultivator
3.	0	78	Linked	SC	Rs. 610	Local	Cultivator
4.	0	90	Linked	SC	Rs. 621	Local	Cultivator
5.	0	50	Linked	SC	Rs. 593	Local	Cultivator
6.	0	65	Linked	SC	Rs. 661	Local	Cultivator
7.	0	125	Linked	SC	Rs. 617	Local	Cultivator
8.	0	40	Linked	Mahammedan	Rs. 623	Local	Cultivator
9.	0	70	Linked	Mahammedan	Rs. 640	Migrant	Cultivator
10.	0	85	Linked	Mahammedan	Rs. 632	Migrant	Cultivator
11.	122	70	Linked	Mahammedan	Rs. 593	Migrant	Cultivator
12.	137	85	Linked	Mahammedan	Rs. 576	Migrant	Cultivator
13.	113	110	Linked	Mahammedan	Rs. 613	Migrant	Cultivator
14.	98	60	Linked	Other(H) Caste	Rs. 652	Migrant	Cultivator
15.	127	75	Linked	Other(H) Caste	Rs. 634	Migrant	Cultivator
16.	118	50	Linked	Other(H) Caste	Rs. 563	Migrant	Cultivator
17.	124	140	Linked	Other(H) Caste	Rs. 674	Migrant	Cultivator
18.	108	90	Linked	Other(H) Caste	Rs. 618	Migrant	Cultivator
19.	0	50	Linked	SC	Rs. 569	Local	Cultivator
20.	0	61	Linked	SC	Rs. 604	Local	Cultivator
21.	0	87	Linked	SC	Rs. 597	Local	Cultivator
22.	0	40	Linked	Mahammedan	Rs. 682	Local	Cultivator
23.	0	35	Non-linked	Mahammedan	Rs. 652	Migrant	Cultivator
24.	0	50	Non-linked	Mahammedan	Rs. 673	Migrant	Cultivator
25.	0	75	Non-linked	Mahammedan	Rs. 704	Local	Cultivator
26.	0	60	Non-linked	Mahammedan	Rs. 752	Local	Cultivator
27.	180	125	Non-linked	Other(H) Caste	Rs. 607	Migrant	Shopkeeper
28.	120	150	Non-linked	SC	Rs. 621	Local	Shopkeeper
29.	150	75	Non-linked	Mahammedan	Rs. 528	Migrant	Shopkeeper
30.	144	100	Non-linked	Mahammedan	Rs. 573	Migrant	Shopkeeper
31.	140	175	Non-linked	Mahammedan	Rs. 511	Migrant	Shopkeeper

*A First Approach :*

Initially we confine our analysis to quantitative variables. In Table 5.9 there are 3 quantitative variables, namely, rate of interest, loan size and per capita income. We express the functional relationship among the three quantitative variables in the following form :

$$r = f(\text{LS}, \text{PCI})$$

Where  $r$  = Rate of interest,  $\text{LS}$  = Loan size and  $\text{PCI}$  = Per capita income

On the evidence of other studies<sup>15</sup> we are led to expect a lower interest rate on a large-sized loan. Since the large-sized loans are associated with proportionately less transaction costs, the creditors lower interest rates on large-sized loans to accommodate lower transaction costs. The  $\text{PCI}$ , on the other hand, represents the economic status of the loan-receiptant which provides a certain degree of bargaining power in the negotiation of credit-contract. A decrease in interest rate is therefore expected with an increase in  $\text{PCI}$ .

We fit a linear regression model of the following form :

$$r = \alpha + \beta_1 (\text{LS}) + \beta_2 (\text{PCI}) + u_i$$

The co-efficients are then estimated by the method of Ordinary Least Squares (OLS). The estimating equation will be of the following form :

$$r = \hat{\alpha} + \hat{\beta}_1 (\text{LS}) + \hat{\beta}_2 (\text{PCI}) + e_i$$

The regression results are estimated on three pre-sorting of data on Table 5.9 to give us the grouped results of Table 5.10. Of this the first pre-sorting is made of the nature of loan-contract to capture intrinsic differences in rate of interest and relative importance of loan size and per capita income between linked and non-linked loan samples. The second pre-sorting is made of the residential origin variable (i.e. origination of the borrower) to capture intrinsic differences in the functional variables and their relative importance between local and migrant sub-samples. The third sorting is made of the loan-source variable to capture the same variational patterns in accordance with the segments of the sample drawing loans from cultivators, or alternatively from shopkeepers. For each pre-sorting, two regressions are therefore estimated i.e. linked : non-linked; local: migrant; cultivator-source :shopkeeper - source.

**Table 5.10**  
**OLS Applied for Qualitative Variables**  
**Regression Results**

Loanee Categories	$\hat{\alpha}$	$\hat{\beta}_1$	$\hat{\beta}_2$	df	n	Std. Err. of Est.	R <sup>2</sup>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>A. By nature of loan-contract :</b>							
i) Linked	86.38	0.83 (1.73*)	-1.7 (0.47)	19	22	57.32	0.137
ii) Non-linked	397.91	0.61 (1.49**)	-0.60 (2.5**)	6	9	44.29	0.77
<b>B. By nature of origination :</b>							
i) Local	-6.04	0.64 (3.2*)	-0.05 (0.42)	12	15	24.57	0.46
ii) Migrant	393.88	0.62 (1.68**)	-0.54 (0.28)	13	16	48.23	0.46
<b>C. By nature of loan-sources:</b>							
i) Cultivator	129.50	0.87 (2.23*)	-0.25 (1.14)	23	26	52.40	0.20
ii) Shopkeeper	157.71	-0.18 (0.49)	0.02 (0.07)	2	5	29.01	0.11

Note : Figures in parentheses denote computed t-value.

\* Significant at 5% level.

\*\* Significant at 10% level.

The value of  $\hat{\alpha}$  (i.e. the intercept of estimating equation) represents threshold rate of interest or entry-level rate of interest. It indicates the average rate of interest payable by any loan-receiver on the point of entry into the credit-arrangement. The value of  $\hat{\beta}_1$  measures the incremental interest payable due to unit changes in loan size and hence may be termed as incremental-interest-coefficient due to loan size. Similarly,  $\hat{\beta}_2$  measures the incremental-interest payment due to unit changes in per capita income and may be termed as incremental interest-coefficient due to per capita income.

It is observed from Table 5.10(col. 1) that the local borrowers pay the lowest threshold rate of interest while non-linked loanees pay the highest threshold rate. The former segment is therefore best placed while the latter segment is worst placed as regards threshold interest and credit-terms.

Col.2 of Table 5.10 reveals that in one single case of loanees borrowing from shopkeepers the  $\hat{\beta}_1$ -coefficient (i.e. incremental-interest-coefficient due to LS) possesses the expected negative sign. For all other loanee-categories, the  $\hat{\beta}_1$ -coefficients are positive and they negate the expectation formed on the basis of other studies that creditors lower interest rates on larger sized loans and encourage default. Commercial money-making through lending is not the objective of the cultivators. Unlike the shopkeepers, the cultivator - creditors do not lower the interest rate to encourage indebtedness and therefore transaction cost does not play any role in determining a lower rate of interest for higher sized loans for them. The positive values of  $\hat{\beta}_1$  instead represent interest *mark-ups* on account of larger sized loans.

Col. 3 of Table 5.10 shows the values of  $\hat{\beta}_2$ -coefficient (i.e. incremental-interest-coefficient due to PCI) for different categories of loanees. Except for a single case of loanees borrowing from shopkeepers, the coefficients in all the cases possess the expected negative signs indicating a reduction in rate of interest with the increase in per capita income. The negative values of  $\hat{\beta}_2$ -coefficient represent interest *mark-downs* on account of better economic status of loan-receipients (i.e bargaining power of the loanee).

As is evident from the table (col.3), the incremental-interest-coefficients due to PCI (i.e.  $\hat{\beta}_2$ ) are very low reflecting the weak bargaining position of the loan-receipients in general. However, the coefficient is highest (in absolute terms) for the linked loanees who enjoy much more bargaining power *vis-a-vis* other categories of loan-receipients.

A cross-comparison of regression results would reveal some variational patterns across various loanee-categories. The threshold interest rate paid by the linked loanees is much lower than the same paid by the non-linked loanees. Interlinked credit-labour contracts are therefore less exploitative compared to the non-linked loan contracts in the informal credit market represented by our sample.

The incremental-interest-coefficient due to loan size (i.e.  $\hat{\beta}_1$ ) is higher for the linked loanees compared to the non-linked loanees. Placed in a comparatively worse position as regards threshold interest, the non-linked loanees get some relaxations in terms of lower mark-ups. On the contrary, there is no incentive for the linked loanees to take larger sized loans as because the rate of interest rises more sharply for them for a given increase in loan size. Although interlinked credit-labour contracts are less exploitative than the non-linked credit contracts, the incremental exploitation with every increase in loan size would be higher for linked loanees compared to non-linked loanees.

The numerical value of incremental-interest-coefficient due to PCI (i.e.  $\hat{\beta}_2$ ) is much higher for the linked loanees compared to the non-linked loanees. This implies that the linked loanees enjoy much more bargaining power because of their ability of determine labour supply in the peak season. Interest

mark -down for the linked loanees will therefore be relatively greater.

The  $R^2$  - value is very low (0.137) for the linked loanees which implies that the loan size and per capita income together are not adequate in explaining the variation in rate of interest effectively for this category. Therefore, other qualitative factors (such as caste, religion and migrant status of the loanees) need to be incorporated into the analysis. For non-linked loanees, on the other hand, the  $R^2$  -value is fairly high (0.77) which implies that the loan size and per capita income together can explain the larger extent of variation in the rates of interest. The relative importance of the qualitative factors is therefore less in case of non-linked loanees.

Coming to the case of loanee-category by nature of origination we observe that the threshold interest rate is negative for the local borrowers. This is unexpected and remarkable since the implication of negative threshold rate being that even if there is possibility of loan default, this is condoned upto a point by the creditor. The creditor thus has a more-or-less philanthropic attitude towards loanees who are longtime local residents. In Table 5.9 it is noticed that all the local borrowers (except one receiving loan from shopkeeper) pay zero rate of interest. The transaction cost of the loan is entirely borne by the creditor with no effort to recover even this from the borrowers thus accounting for the negativity of threshold rate. The migrant labourers however pay much higher threshold rate which provides an entry-barrier for them to such loans. The mark-up factors (i.e.  $\hat{\beta}_1$ ) are almost same for both local and migrant labourers but both of these are lower than the corresponding mark-up for the linked labourers. This implies that both the local and migrant labourers are placed at relatively lower mark-up scale and therefore enjoy some relaxations compared to the linked loanees who already get some benefits in terms of lower entry-level rate of interest. Mark-down factor (i.e.  $\hat{\beta}_2$ , which represents the bargaining power) for migrant labourers is higher compared to the local labourer. Apparently, this result is unexpected. But the implication of this result is that the creditor gives some incentives to the migrant labourers (in the form of higher mark-down to remain within the village and maintain attachment with the creditor at least for a short period of time. The  $R^2$ -values although low are the same for both categories. Since this pertains to the pre-sorting on the basis of origination of the loanees, they indicate that local/migrant status has equal importance for both local and migrant loanees. Further, since the pre-sorting on the single qualitative variable of origination accounts for as much as 46 percent of variability in interest rates, the overwhelming importance of this variable is indicated.

Lastly, we consider the loanee-category by nature of loan-sources. It is observed in Table 5.10 that the loanees borrowing from shopkeepers pay much higher threshold interest rate compared to those borrowing from cultivators. Cultivators are therefore the cheapest source of loan to the landless agricultural labourers in our sample. It is noteworthy that while the interest charged by the cultivators is implicit interest which arises purely from wage-cut, the interest charged by the shopkeeper is explicit or stipulated interest.

The incremental-interest-coefficient due to loan size (i.e.  $\hat{\beta}_1$ ) is positive for borrowers taking loan from cultivators while the coefficient is negative for those receiving loan from shopkeepers. This indicates the difference in motivation of the two sources towards lending. The cultivators increase the rate of interest with the increase in loan size and discourage large-sized loans. Commercial money-making through lending is not the objective of the cultivators. They advance loans primarily to link the labour services of the loanees. In certain cases, however, they charge (implicit) rate of interest. But the objective is to reduce wage -cost, rather than earning usurious income. In contrast, the shopkeepers are

guided solely by the motive of earning usury income. They reduce the rate of interest with the increase in loan size and encourage indebtedness. The possibility of default is nil because of the presence of a guarantor.

We may further note another interesting feature of lending of the two sources. Since the labourers borrowing from cultivators can determine the supply of labour in the peak agriculture season, they enjoy some degree of bargaining power indicated by the negative value of incremental-interest-coefficient due to PCI (i.e.  $\hat{\beta}_2$ ). But such a bargaining power to reduce the rate of interest is completely absent when the labourers receive loans from shopkeepers as indicated by the positive value of  $\hat{\beta}_2$  in their case.

The  $R^2$ -values (0.20 and 0.11 respectively) for this loanee-category are very low indicating the relative unimportance of loan source in interest determination *vis-a-vis* other qualitative variables.

Reviewing the regression results represented in Table 5.10 we find that marked distinctions exist between loanees in the category of linked local borrower who have borrowed from cultivators *vis-a-vis* non-linked migrant borrowers who have borrowed from shopkeepers. The former segment is best placed while the latter segment is worst placed as regards threshold interest and credit-terms. Loan size is a primary determinant of interest mark-up, an observation further strengthened by the fact that most of the t-coefficients for  $\hat{\beta}_1$  are significant at some level or the other. This further establishes the absence of pecuniary or usurious character of the credit arrangement in the peasant-based economy of the sample region. Except for the single case of loanees borrowing from shopkeepers, these results all negate the expectation formed on the basis of other studies that creditors lower interest rates on larger sized loans to accommodate lower transaction costs and to increase indebtedness or serial debt. With regard to PCI variable, the relative economic status of the loan-receipt provides a certain bargaining position in the negotiation of the credit contract which is represented by the interest mark-down on this account. However, bargaining power is generally low except for the linked loanees who enjoy much more bargaining weight because of their ability to determine labour supply.

### 5.9 Analysis of Qualitative Factors : ACOV Dummy Regression Model

We have just seen that the rate of interest depends not only on the loan size and per capita income but also on qualitative factors. We have specified five qualitative factors in our model such as nature of credit contract, caste, religion, origination/ residential status of the borrower and source of loan. Our model therefore consists of seven explanatory variables, of which two are qualitative and remaining five are quantitative variables. Applying the ACOV - dummy regression model, the modified regression equation may be presented in the following form :

$$r = a + a_1 D_1 + a_{21} D_{21} + a_{22} D_{22} + a_3 D_3 + a_4 D_4 + a_5 X_5 + a_6 X_6 + u_i$$

Where dependent variable  $r$  is the rate of interest paid and independent variables and dummies are as follows :

Nature of credit contract	$D_1$	= 1, if credit contract is linked = 0, otherwise
Caste	$D_{21}$	= 1, if the household belongs to SC = 0, otherwise

Religion	$D_{22} = 1$ , if the household belongs to muslim community = 0, otherwise
Residentiary Status	$D_3 = 1$ , if the household is local = 0, otherwise
Loan Source	$D_4 = 1$ , if the labourer takes loan from cultivator = 0, otherwise
	$x_5 =$ size of loan
	$x_6 =$ per capita income

The results of the dummy regression analysis are presented in the table below :

**Table 5.11**  
**Results of ACOV Regression**

<i>Dependent Variable : Rate of Interest paid (percent per annum)</i>		
Explanatory Variables	Coefficients	t-value
Nature of Credit Contract	-22.214 (23.649)	-0.94
Caste	-87.359 (29.362)	-2.98*
Religion	-52.895 (17.389)	-3.04*
Origination/ Residentiary Status	-23.612 (22.801)	1.04
Loan Source	-81.016 (35.641)	-2.27**
Loan Size <sup>c</sup>	0.366 (0.220)	1.67***
Per capita Income	-0.231 (0.184)	-1.26
Intercept	286.34	-
Std. Err. of r Est.	30.35	-
R <sup>2</sup>	0.8391	-
No. of Observations	31	-
Degrees of Freedom	23	-
Estimating Equation : $r = 286.34 - 22.21D_1 - 87.36D_{21} - 52.90D_{22} - 23.61D_3 - 81.01D_4 + 0.37X_5 - 0.23X_6 + U_1$		

Note : Figures in brackets are standard error of the coefficients.

\* Significant at 1% level

\*\* Significant at 2.5 % level

\*\*\* Significant at 10 % level

It is observed from Table 5.11 that R<sup>2</sup>-value substantially improves to 0.8391 on inclusion of qualitative factors. Most of the coefficients are also statistically significant. Non-significance of coefficients

for nature of credit contract, nature of origination are more the results of variability by the other quantitative factors, than unimportance of these results themselves.

The intercept term (i.e. 286.34) represents the threshold or entry-level interest rate. It is the average rate of interest paid in the case where all included qualitative factors (dummies) are inoperative i.e. the rate of interest paid by the non-linked non-SC non-muslim migrant borrower who have borrowed from non-cultivators (i.e. shopkeepers) at the point of entry into the credit arrangement. This category of loanees is considered as the 'base category' in the ACOV dummy regression model (where all dummies=0) which do not get any interest mark-down concession anywhere.

The coefficients of all explanatory variables are negative except that of the loan size. Each of these negative coefficients represents mark-downs on the rate of interest corresponding to the associated variables. The mark-down factor is highest for the caste -variable at -87.359. It needs to be noted that the caste-dummy of SC and religion-dummy of muslim are mutually exclusive, hence the loanee's membership of either category qualifies him for some concessions. Thus although the mark-down for the SC category is highest, the third in order after this is the mark-down for muslim at - 52.895. Thus caste / religion have the highest combined mark-down impact upon threshold interest rate.

Another point of interest arises from comparison of interest mark-ups on account of loan size between OLS and ACOV regression (Table5.10 & Table5.11 ). Compared to a coefficient range (-0.18 to 0.87) in the former, the coefficient in the latter is substantially lower at 0.366. If we remember that the negative coefficient value of -0.18 (i.e. interest mark-down instead of interest mark-up existed) for only those loanees availing shopkeeper-sourced loans, and thus may be dropped from the comparison as belonging to the category of non-linked loans. In such a case, the comparison shows substantial fall in interest mark-up as a result of inclusion of qualitative factors. More specifically, any loanee belonging to either of the qualitative concessional categories is favoured by a reduction of the disincentive to borrow (i.e. mark-up) and consequently can resort to larger sized loans. This would have the interesting implication that where the borrower is SC or muslim or local resident or borrows from cultivator, the tendency to go in for linked loan-transaction multiplies.

Among the explanatory variables the lowest mark-down coefficient is found for the PCI-variable, which is found to have remained largely unaffected by the inclusion of qualitative factors in the ACOV-regression. This is markedly different from the behaviour of the loan size variable in the ACOV regression and shows that overall loan-need and relative bargaining power are determined by economic status rather than any qualitative factor.

#### **5.10 Scaling and Relative Importance of Qualitative Factors**

By fitting the coefficients obtained into the interest rate estimating equation in dummy regression from we obtain the effective interest rate charged per qualitative category among the loanees. The results of coefficient substitution along with computed effective interest rate and magnitudes of sorted interest mark-downs applicable are summarised in the following table.

**Table 5.12**  
**Interest Mark-downs and Scaled Qualitative Variables**

Linked	Local	SC	Muslim	Cultivator	Effective Rates of Interest (percent per annum)	Interest Mark -downs
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(-)	(-)	(-)	(-)	(-)	(286.48)	(-)
(+)	(-)	(-)	(-)	(-)	(264.27)	(-22.21)
(-)	(+)	(-)	(+)	(-)	(233.72)	(-52.76)
-	-	-	+	-	233.58	-52.90
(+)	(-)	(-)	(+)	(-)	(211.35)	(-75.13)
-	-	-	-	+	205.47	-81.01
(-)	(-)	(+)	(-)	(-)	(198.75)	(-87.73)
(+)	(+)	(-)	(+)	(-)	(187.76)	(-98.72)
+	-	-	-	+	183.26	-103.22
(+)	(-)	(+)	(-)	(-)	(176.91)	(-109.57)
-	+	+	-	-	175.65	-110.83
(+)	(-)	(-)	(-)	(+)	(159.63)	(-126.85)
(+)	(+)	(+)	(-)	(-)	(153.30)	(-133.18)
-	+	-	+	+	152.71	-133.77
-	-	-	+	+	152.57	-133.91
+	-	-	+	+	128.96	-157.52
(-)	(-)	(+)	(-)	(+)	(117.74)	(-168.74)
+	+	-	+	+	106.75	-179.73
-	+	+	-	+	94.64	-191.84
(+)	(-)	(+)	(-)	(+)	(94.50)	(-191.98)
+	+	+	-	+	72.43	-214.05

Note : (1) Here ' + ' sign represents the 'dummy-on' situation and ' - ' sign represents 'dummy-off' situation.

(2) Figures within brackets pertain to qualitative categories absent in the sample.

Table 5.12 (col. 6) represents the effective rates of interest paid by various qualitative categories of loanees. The mean effective rate of interest is estimated at 170.97 percent. The effective rates which are higher than the mean value are grouped as relatively higher rates while the effective rates which are lower than the mean value are grouped as relatively lower rates. Accordingly, the relatively higher group includes interest rates in the range of 286.48 - 175.65 percent and the relatively lower group in the range of 159.63-72.43 percent. Corresponding to the first group we get the relatively lower mark-downs in the range of (-22.21 to -110.83) and the second group corresponds to the relatively higher mark-downs in the range of (-126.85 to -214.05).

As regards local loanees (Table 5.12, col.2), we find two distinct clusterings. The first clustering pertain to the mid-range effective interest rates of 175.65- 152.71 (interest mark-down rate : -110.83 to -133.77). The second clustering of local loanees pertain to the lower effective interest range of 106.75 - 72.43(-179.73 to -214.05) . On the whole, the local loanees in col.2 generally pay effective interest rate in the lowest range.

Looking now at community factors (Table 5.12, cols. 3 & 4) the less denser clustering overall is observed for SC loanes in the range of 117.74 - 72.43 (-168.74 to -214.05), followed by muslim loanees with denser clustering in the range of 152.71 - 106.75 (-133.77 to -179.73). In general, therefore, lowest interest rates and highest mark-downs are exhibitant by the SC-category.

Analysing the joint operation of qualitative factors it is obvious that highest mark-downs in interest rate over the entire sample occur for local resident linked SC loanees borrowing from cultivators. The benefit of lower interest extends even to non-linked SCs. After the local SC loanees, the next community in order of mark-downs in interest comprises local linked muslim loanees borrowing from cultivators, followed by migrant muslims in the same category. Loanees belonging neither to SC or muslim categories pay higher effective interest rates receiving lower mark-downs. It may be noted that this category entirely comprises migrants from outside the sample regions.

The scaling analysis of qualitative factors thus establishes that the primary determinant of lower effective interest rates is whether the loan source is loan from another cultivator or from shopkeeper. This in fact strengthens the conclusion of the previous sections, namely that cultivator-creditors do not have a usurious motive in their lending operations. Noting that cultivator-sourced loans offer greater interest mark-down to linked labour this would imply that the cultivator-creditor functions more out of the need to reserve farm-labour services to meet anticipated peak season labour demand.

The next in qualitative importance are community factors. These are namely of two types - either religious homogeneity of the sub-community (muslim) or caste homogeneity (SC). It must be noted that the greater amount of intra-community concessions in terms of interest mark-downs are offered to SC loanees, followed by muslim loanees, followed by non-SC non-muslim loanees who are generally migrants.

The SC-composition of the sample requires further comment. Although classed among the Scheduled Castes, the SC-component of the sample belongs to Rajbanshi community which predominates in Cooch Behar and most of North Bengal. Since their community is homogeneously constituted both in cultural and ethnic terms, it has a unified character and moreover constitutes the indigeneous population. As such the 'indogeneity' factor is the primary determinant of interest mark-down. The next in order of importance is also the qualitative factor of religious-cum-ethnocultural homogeneity which is found among muslim population. Overall the qualifying criterion for more beneficial loan-terms in the peasant economy character of the sample region therefore appears to be the existence/absence of some perceived homogeneity factor. Favourable credit-terms including linked labour services are extended by cultivators to members of their closed communities. Entry is barred to new entrants. As a result, the highest level of concessions are extended within the indigeneous SC-community, followed by the muslim community because of internal cohesiveness. Migrant loanees are relatively disadvantaged because they share no such affinity either among themselves or with the resident population.

Nevertheless the hierarchy of terms is maintained between linked and non-linked loans, without having any markedly high usurious character are preferentially extended by cultivators to members to their own communities, and offer more beneficial concessions relative to non-linked loanees, even though community factor still holds greater importance.

#### 5.11 Conclusion from the Econometric Study

There is a high degree of credit-dependence among the landless agricultural labourers. They are seen to obtain loan from larger cultivators or alternatively from shopkeepers. The creditors are differentiated in terms of their motivation towards lending. The cultivators increase the rate of interest with the increase in loan size and thus discourage larger-sized loans. Commercial money-making through lending is not the objective of the cultivators. They advance loans primarily to link the labour services of the loanees.

In certain cases, however, they charge implicit interest in the form of wage-cut. The objective here is to reduce wage-cost, rather than earning usurious income. In contrast, the shopkeepers are guided solely by the motive of earning usury income. They reduce the rate of interest with the increase in loan size and encourage indebtedness.

Besides the quantitative factors, certain qualitative factors like caste, religion, origination of the loanee, nature of credit contract, etc. play a very important role in the determination of rate of interest in the informal credit market. The highest interest-concession over the entire sample occur for local resident linked SC loanees borrowing from cultivators. The benefit of lower interest extends even to non-linked SCs. After the local SC loanees, the next community in order of interest-concession comprises local linked muslim loanees borrowing from cultivators, followed by migrant muslims in the same category. Loanees belonging neither to SC or muslim categories pay higher effective interest rates receiving lowest interest-concession. It may however be noted that this category entirely comprises migrants from outside the sample regions.

### **Notes & References**

1. Loans for urgent consumption purposes (e.g. medical needs) are extremely inelastic in the sense that the borrowers can not reduce the loan-demand with increasing adversity in loan-terms.
2. Chattopadhyay and Bhattacharyya (1984), p.38
3. *Ibid.*
4. Majumder, D.D. (1977), p. 153
5. Singha, Bidhan, *Uttarbanga Sambad*, 5th May, 1997
6. Bardhan (1980), p. 94
7. Binswanger and Rosenzweig (1986), referred in Sarap (1991), p.147
8. Rao(1980), referred in Sarap (1991), p.147
9. Sen, Bhowani(1962), quoted in Rudra (1982), p. 415
10. Thorner (1962), quoted in Rudra (1982), p. 420
11. Rudra (1982), p. 423
12. *Ibid.* pp. 423-24
13. *Ibid.* p. 424
14. Singh, Manjit (1977), pp. 518-519
15. *cf.* Borooah (1980)