

CHAPTER VII

INTERLINKED CREDIT TRANSACTIONS AND INTEREST RATES

In order to examine the consequences/effects of various types of interlinked transactions observed earlier, it is attempted in this chapter, to estimate the explicit, implicit (hidden) costs of the informal loans and effective interest rates¹ under various types of linkages resorted by various categories of lenders for different purposes. They are also compared between agricultural labourers and cultivators, along with possible explanations for the differences in between them.

This chapter is organised into 2 sections. Section (i) explains the methodology adopted in estimating the explicit and implicit costs, explicit and implicit interest rates and effective interest rates for various types of linked and nonlinked credit transactions. The analysis of the effective interest rates based on the type of linkage, type of lender and purpose of loan is presented in section (ii) of the chapter.

Section I

Estimation of cost of informal credit, especially quantifying the concealed costs poses problems since it is heavily dependent on the perceptions and memory recall of the sample households. For instance, if an agricultural labourer

$$1. \text{ Effective interest per annum} = \text{Explicit interest rate per annum} + \text{Implicit cost rate per Rs.100 of loan}$$

enters into a contract of migration or annual farm servant system as a part of credit contract, it is difficult to estimate the opportunity income lost through casual labour or other income generating activities at his disposal had he been without any above labour linkages during the period of contract. Further, in the quantification of the loss incurred by way of malpractices in weighing of output by commission agents, heavy reliance is placed on the memory recall and perceptions of sample respondents. However, the background information collected by the investigator through discussions with other sources such as lenders, other knowledgeable persons such as village Karanams, school teachers etc. helped to cross check with the information given by respondents.

The costs of informal credit comprise of explicit costs and implicit costs. The nominal interest payments based on the contracted rates of interest agreed upon by both the lender and the borrower are considered as explicit costs. The hidden costs collected by the lender over and above the agreed rates of interest with or without the knowledge of the borrower through various means like differentials in wages, prices and quantity etc. are taken as implicit costs. These explicit costs and implicit costs are expressed as percentages to the principal borrowed to workout the explicit interest rate and implicit interest rate respectively. While the actual duration of the loan is considered for computing the explicit interest rate per annum, the implicit costs are expressed simply as a percentage to the principal amount without taking the duration of loan into consideration, since they have no relation with duration and incurred in lumpsum.

The monthly product method is used to estimate the actual duration of loan.²

The following procedures and formulae are used to estimate the explicit and implicit interest rates based on mode of transactions involved under various types of linkages of credit with other markets.³

1. **Land Mortgages:** In this case, there are no contracted rates of interest. Hence there are no direct explicit payment of interest by the borrower to the lender. The interest is accrued to the lender in the form of rental value of land mortgaged in case he leased out the land or the net income in case he cultivated the land on his own. For the borrower, the opportunity income lost/opportunity cost from the land can be considered as interest to the loan he has taken. Therefore, it is an implicit cost to the borrower.

2. If a farm household availed Rs.1000/- in June 1991, Rs.500/- in July'91 and Rs.1000/- in August'91 in the form of agricultural inputs or in the form of grain for consumption and repaid Rs.1500/- in February 1992 and completely cleared the informal loan with interest by paying Rs.1500/- in March 1992, monthly products method is used to estimate the exact duration of loan. Monthly products are calculated by multiplying the amount outstanding with number of months in which it is outstanding i.e., $(1000 \times 1 + 1500 \times 1 + 2500 \times 6 + 1000 \times 1)$ and get the total of monthly products (18,500). We get the duration of loan as 7.4 months by dividing the total of monthly products (18500) by the principal loan amount (2500). But in the ordinary method, the duration will be overestimated as 9 months if we just take the duration between June '91 (date of first disbursement) and March'92 (date of loan settlement), which will underestimate the interest rate per annum.

3. The concealed interest due to interlinkage which escapes the estimates based on the data of macro studies has brought out by Ashok Rudra (1975), Khasnobis and Chakravathy (1982), Bandhopadhyay (1984), Sarap (1986) and Reddy (1992). They adopted detailed procedures based on the kind of transactions involved under various linkages of credit with other markets.

The rental value of land per year is considered as implicit cost (i). The implicit interest rate (r) is expressed as $r=(i/p) \times 100$ where "i" is the implicit cost per annum and 'p' is the principal.

2. **Tenancy Market:** Under tenancy market, there are possibilities of various types of credit transactions between the landlord and tenant such as i) 'cash to cash'(i.e., loan borrowed in cash and repaid in cash), in which there are only explicit costs of the loan on the basis of contracted rates of interest (ii) "cash to kind" in which the loan lent in cash is collected by the landlord in kind forms such as labour, output share etc. The wage differentials in labour and the price differentials in the output can be considered as implicit costs of the loan over and above the explicit costs. (iii) In 'kind to cash', the loan lent in kind form such as agricultural inputs, grain for consumption etc. repaid in cash form. The implicit costs takes the form of the price differentials of inputs or grain supplied by the landlord, besides the contracted explicit interest payments, (iv) Finally, in 'kind to kind' transactions, the loan borrowed in kind form like agricultural inputs, grain etc, repaid also in kind form such as labour, output etc. The price differentials of inputs, grain, output and the wage differentials of labour supplied can be considered as implicit costs over and above the explicit costs.

However, in the study area, only cash to cash transactions are dominant in the tenancy market. Out of 9 credit transactions found in developed and backward villages, 8 are cash to cash transactions and only one transaction in backward village is cash to output (cash to kind).

i) Cash to Cash

In case of 'cash to cash' transaction in which only-explicit interest payments (I) exist. The simple interest formula used to compute the explicit interest rate per annum (R) is $R = (I/P) \times (12/n) \times 100$ where P is principal, n is the duration of loan in months which is calculated by monthly products method.

(ii) Cash to output

The landlord collects the loan in the form of output from the output share of the tenant. The landlord takes the output by valuing at Contractual Price (CP_0) which is lower than the prevailing market price MP_0 . We get explicit interest costs by the formula $P+I=Q_0(CP_0)$ where I is explicit interest cost, p is principal loan amount, Q_0 and CP_0 are the quantity and undervalued contract prices of the output taken by the landlord. The explicit interest rate (R) is calculated as per the formula followed in cash to cash transaction. The implicit cost (i) is estimated by the formula $i=Q_0(MP_0-CP_0)$ where MP_0 and CP_0 are market price and contracted prices of output (Q_0) respectively collected by the landlord. The implicit interest rate (r) is arrived at by expressing 'i' as percentage to the principal amount 'p' i.e., $r=(i/P)100$.

3 Credit Linkage with Annual Farm Servant System; It involves only the 'cash to labour' type of credit transaction. The principal loan amount (P) is deducted along with explicit interest (I) from the annual wage paid by the employer-farmer-cum-lender for the labour service provided by

the borrower under the Annual Farm Servant System (AFS). Generally it will be done at the end of the AFS contract period i.e., one year. It can be expressed as $P+I\pm M=AU$ where 'P' and 'I' are principal and explicit interest amounts respectively, "M" is the surplus (deficit) amount if any returned (due) to (from) the borrower and AU is the actual wage contracted under AFS. The explicit interest rate (R) is calculated by the formula $R=(I/P)X(12/n)X100$, which is adopted in cash to cash transactions.

It is difficult to estimate the implicit costs (i) in this case because the annual wages of AFSs are generally uniform in the village which are decided every year. However, they are different for adult and child labour. They also differ based on type of work i.e., farm work or sheep rearing work (in backward village only), and with provision of meals by the employer or without meals. But the annual wages are similar in each category. Hence, in order to estimate the implicit costs, the opportunity cost or opportunity income which could have been earned by the borrower (if any) had he been outside the AFS contract is computed and the difference between the annual wage of AFS (AU) and opportunity cost (OC) is considered as implicit cost. The average annual income of agricultural labourers who are outside the AFS system through casual labour work as well as other Income generating activities such as seasonal migration for agricultural work etc. in each village is estimated and used as a proxy for opportunity cost (OC) of AFS. Therefore, the implicit costs (i) are represented as $i=OC-AU$ where OC is opportunity cost of AFS had he been outside the AFS system and AU is the annual wage of AFS. The

annual wages with meals and without meals are standardised by valuation of meals based on the information collected in the village. The average annual income of child labour is also calculated separately in each village to arrive at opportunity cost of child AFS. The implicit interest rate (r) is estimated by the formula $r=(i/P)100$ as adopted in earlier cases.

4. Migrant labour contracts: As observed earlier, there are three types of migration contracts. However, in all of them, only the "cash to labour" transactions are prevailing. Firstly, in "Palamur migration", (mostly in developed village), the labour contractors/maistries advance credit in cash without interest and deduct the principal loan amount (P) from the actual wages (AW) paid to the labour service provided by the borrowers, which is denoted by the formula $P \pm M = L.AW$ where 'M' is the surplus (deficit) amount returned (due) to the borrower (lender). M can be positive if there is surplus amount and negative if there is deficit. Under this arrangement, generally the 'M' is negative and the bondage is continuous between the labour contractor and migrant labourer and renewed every year. 'L' is the duration of labour service in days. AW is the actual wage rate per day. As there are no explicit interest payments, explicit costs (I) are zero.

The implicit costs are hidden in the form of wage differentials between the actual wage rate (AW) paid by the contractor and the market wage rate (MW) of labour days provided. Here, the average opportunity income per day of the agricultural labourers in the village during October to

June in which the migrants are away from the village is considered as market wage rate (MW). Value of the food provided by contractor to the labourer for subsistence is also included in actual wage per day (AW). The implicit costs (i) are estimated by using the formula $i=L(MW-AW)$, where 'L' is duration of migration contract in number of days MW and AU are market wage (opportunity cost) and actual wage per day respectively. The implicit interest rate (r) is arrived at by expressing explicit costs (i) as a percentage to principal 'P', i.e., $r=(i/P)100$.

Migration for Brick Making Work

Under this migration also, the labour contractors provide credit in cash without interest or with nominal interest rates and deduct half of the wages paid per week towards loan instalment. This is represented in a formula $P_i+M=U.AW$ where p_t the instalment credited to the principal loan amount (P), M is the amount paid in cash by the contractor to the labourer for subsistence, 'IT' is the number of units of bricks prepared by the labourer and AU is the actual wage paid by contractor per unit (U) of the bricks. Finally at the end of the contract (generally about 6 months) the explicit interest costs are collected, which can be denoted as $P-(P_1, +P_2+ . . . +P_n) + I \pm M=U . AW$ where 'P' is principal loan amount, $P_1,P_2...P_n$ are the amount of instalments credited to the loan, I is the explicit cost recovered and M is the surplus or deficit.

The implicit costs are computed as the difference between the actual wages paid by the contractor per unit of bricks (AW), and the market wages in the area. The wages

paid per unit of bricks to other than migrants in the area where the labourers worked under migration contracts (outskirts of Hyderabad and Secunderabad) is considered as market wage rates (MW) for the purpose. The implicit costs (i) are calculated as $i=U(MW-AW)$ where 'U' is the number of units of bricks made by the labourer during contract period.

Under seasonal migration for agricultural work also the informants/large farmers (of migrated area) provide credit with or without interest and collect it out of the wages paid to the labourer i.e., $P+I+M=AW$, where AW is the actual wages paid by the farmers for a piece of work on contract basis (piece contract), and I is the explicit interest cost. There are no implicit costs in this case because there is no difference between AW and market wages (MW). Infact the actual wages paid (AW) are more than the market wages in the village. Hence only explicit interest rates (R) are calculated as $R=(I/P)X(12/n)X100$.

5. Credit Linked with Casual Labour Contracts: Credit linked to casual labour contracts are prevalent in commercialised village, only for child labour. The cotton seed producing farmers provide credit in cash and deduct the same from the wages of labour provided by children (cash to labour). The explicit costs (I) are arrived at by the formula adopted in earlier cases i.e., $P+I+M=L.AW$ where $\wedge P^1$ is principal loan, I are explicit interest payments, M is the surplus money returned to the labourer, L is the period of work in labour days and AW is the actual wage per day. The explicit costs thus arrived at are used to estimate the explicit interest rate (R) i.e., $R=(i/P).(12/n).100$.

The implicit costs (i) are estimated by the formula $i = T.MW - L.AW$ where T.MW is the average total market wages during 6 months period (in which the above labour contact is in operation) for the child labourers in the village who are outside the above contract.

6. Credit Linked with Input Market; The input traders provide agricultural inputs such as seed, fertilizers, pesticides etc. on credit by overpricing them to get implicit costs in the developed village. The explicit costs are estimated by using the formula $A - \sum(Q_i CP_i)$ where I is the explicit costs, A is the amount repaid and Q_i are the quantities of various items of agricultural inputs supplied with overvalued prices CP_i . The explicit interest rate (R) is arrived at by the formula $R = [I / \sum Q_i (CP_i)] \times (12/n) \times 100$ where 'n' is the duration of loan in months i.e., the period between the date of Q_i supplied and the date of repayment, which is estimated by the monthly products method.

The implicit costs (i) are estimated by using the formula $i = Q_i (CP_i - MP_i)$ where MP_i are the prevailing market prices of the input items at the time of supply by the trader. The implicit interest rate (r) is obtained by expressing the implicit costs 'i' as percentage to $\sum Q_i (MP_i)$, i.e., $r = [i / \sum Q_i (MP_i)] \times 100$.

7. Credit Linked with Output Market; The commission agents supply credit in cash and collect* the loan along with stipulated interest from the sale proceed* of output for which they organised the sale, as the agents of the borrower-farmers. In the sale process, the commission agents extract

surplus especially from the small and marginal farmers with weak bargaining power, and lower education, through underweighing the output with the connivance of other market yard workers who are dependent on the commission agents for their income. The explicit costs (I) as in earlier cases, are estimated by the formula $P+I+c+M=MQ_0.P_0$ where C is the commission deducted by the agent, MQ_0 is the quantity of output quoted by the agent and P_0 is the price per unit of output decided in the market yard through tender system.

It is difficult to estimate the implicit costs in this case, since it is not possible to find out the exact weight of output from the sources other than the commission agents. However, farmers generally, out of their experience, have rough estimates of the quantity of output they produced³ and can clearly arrive at the possible difference between actual quantity (AQ_0) and the quantity quoted by the commission agent in the market (MQ_0). Therefore implicit costs are arrived at by the formula $i = P_0 (AQ_0 - MQ_0)$ where P_0 is the market price of output, AQ_0 is the actual quantity of output perceived by the farmer as per his rough estimates based on his own measurements, and MQ_0 is the quantity quoted by the commission agent in the market. The implicit interest rate, is estimated by expressing the implicit costs (i) as percentage to the principal loan amount.

8. Credit Linked with Input and Output Market: In developed village, the input traders provide agricultural inputs on credit and recover the same with interest by purchasing the output from the borrowers. In the process, they collect the implicit costs by charging higher prices for the inputs they supplied as well as by quoting lower prices to the output

they purchased from the borrowers. The explicit costs (I) are arrived at by using the formula $\sum Q_i(CP_i)+i+M=\sum Q_o(CP_o)$, where I is the explicit interest costs. Q_i and CP_i are the quantities and contract prices (overvalued) of various items supplied by trader which constitutes the principal amount, M is the surplus amount in cash if any returned to the borrower after deducting principal $\sum Q_i(CP_i)$ and explicit interest costs (I). Q_o and CP_o are the quantity and contract prices (undervalued) of various items of output sold to the trader by the borrower. The explicit interest rate (R) is obtained by the formula $R=[I/\sum Q_i(CP_i)](12/n) \times 100$.

The implicit costs are arrived at by the formula $i=\sum Q_i(CP_i-MP_i)+\sum Q_o(MP_o-CP_o)$ where 'i' denotes the implicit costs collected by the lender in the form of differences in cost prices of inputs supplied (CP_i-MP_i) and the differences in the prices paid to the output purchased by the lender (MP_o-CP_o). Q_o represents the quantities of various items of output sold to trader. MP_i represents the market prices of inputs supplied which are less than the contracted prices (cp_i) and CP_o is the contracted prices of output which are less than the prevailing market price of output in the area, (MP_o). The implicit interest rate (r) is estimated by expressing 'i' as percentage to $\sum Q_i MP_i$ which represents the real principal amount i.e., $r=[i/\sum Q_i(MP_i)] \times 100$.

However, separate procedures are followed in estimating the costs in case of the credit transactions in input and output market by commission agents especially in commercialised and backward villages. The explicit costs (I) are obtained by using the formula $\sum Q_i(CP_i)+I+C+H=\sum H Q_o.P_o$.

The implicit costs (i) are arrived at by $i = \sum Q_i (C_{Pi} - MP_i) + \sum P_o (MQ_o - AQ_o)$ where $C_{Pi} - MP_i$ represents the input price differentials and $MQ_o - AQ_o$ denotes the differentials in the quantity through underweighing.

9. Nagu:- These are 'kind to kind' transactions in which loan advanced in kind form (i.e., paddy, groundnut etc.) is repaid in kind form only. Here the interest takes the form of extra quantity of paddy/groundnut repaid over the initial quantity taken as loan from the agricultural money lender. However the extra quantity payable is fixed, provided it is repaid before or at the next harvest season. Therefore, there are two forms of interest here. They are the kind rate of interest and money rate of interest. The money rate of interest which is estimated by valuing the quantity borrowed with the market prices prevailing at the time of borrowing and by valuing the quantity repaid with the market prices prevailing at the time of repayment i.e., harvest season, can be termed as implicit interest rates. Effective interest rate constitutes only the implicit interest rate.

The kind rate of interest (R) is estimated by using the formula $R = [(Q_r - Q_b) / Q_b] \times 100$ where Q_r is the quantity repaid which includes interest in kind form and Q_b is the quantity borrowed. The duration of loan is not considered here because the transaction is limited to a particular duration after which the terms of credit will change. The money rate of interest (implicit interest rate) is generally less than the kind rate of interest, since the harvest prices are less than the off season prices. The money rate of interest is estimated by using the formula $i = (P_r \cdot Q_r) - (P_b \cdot Q_b)$ where 'i' are the implicit costs, P_r and Q_r are the price and quantity

respectively at the time of repayment and P_b and Q_b , are the price and quantity at the time of borrowing. The money rate of interest (implicit interest rate) is arrived at by expressing the implicit costs 'i' as percentage to the value of principal quantity borrowed $(P_b - Q_b)$ i.e., $r = [i / (P_b - Q_b)] \times 100$.

10. Vadla Voppandam (cash to grain):- Under this, agricultural money lender advances credit in cash with a condition to repay a stipulated quantity of paddy at the time of next harvest. There is no contracted rate of interest explicitly agreed upon. The repaid quantity of grain includes implied interest. The implicit costs (i) are estimated by using the formula $i = (Q_i P_i) - P$ where Q_i is the quantity of grain repaid as per the contract, P_i the price of grain at the time of repayment and P is the principal loan amount. The implicit interest rate (r) is calculated by $r = (i/P) \times 100$. In this case also, the duration of loan is not considered for estimating the interest rate because the contract is limited to a particular duration after which the credit contract expires and need not be renewed automatically. The standardisation to one year, may grossly overestimate the effective interest rates which becomes unrealistic and uncomparable to other types of transactions.

Section (II)

Effective Interest Rates of Informal Credit in Selected Villages

Though there are no significant differences in between villages with respect to total effective interest rates, the differences are considerable in between linked and non-linked loans in all the three sample villages (Table 7.1). Further, the total effective interest rates of agricultural labourers are considerably high (about 46%) compared to that of cultivators (about 35%) in commercialised and backward villages, while there are marginal differences between them in developed village. A comparison of effective interest rates between formal and informal credit among occupation groups (Table 7.1) reveals that the cost of informal credit is considerably higher than that of formal credit both for agricultural labourers and cultivators in all the three villages. It is also observed that the cost of non-linked credit is higher than that of formal credit.⁴

Now the question that arise are why the interest rates of informal credit are so high compared to that of formal credit? Can it be attributed to the risk associated with default and other administrative costs? We have already observed earlier in the study that the rate of repayment is higher in case of informal credit than that of formal credit. The fact that the informal agencies considerably reduced the risk of default by resorting to interlinkages is also revealed from very low default rates of linked credit than

4. Except in case of commercialised village in which total non-linked transactions are only 7.

Table 7.1
Comparison of Effective Interest Rates of Formal and Informal
Credit

(Percentage per annum)

	Formal credit	Informal credit		All infor-
		Linked	Nonlinked	
Developed village				
Agricultural labourers	16.97	38.97	35.67	37.74
Cultivators	14.87	37.77	34.51	36.59
All farm households	14.96	38.14	34.90	36.85
Commercialised village				
Agricultural labourers	36.45	51.20	10.45*	46.93
Cultivators	23.90	35.91	30.77	35.71
All farm households	27.55	41.11	17.23	39.31
Backward village				
Agricultural labourers	20.40	48.91	37.81	46.46
Cultivators	14.53	34.65	30.66	33.80
All farm households	14.92	40.00	33.39	38.57

Note: * Observations are only 3. Out of which, one loan was interest free from close relatives. Hence the interest rate is distorted. If we exclude that interest free loan, the effective interest rates works out to be 28.12% for agricultural labourers and 29.161 for all households.

that of nonlinked credit. Even though the risk of default is very low for linked loans, their effective interest rates are higher than that of non-linked transactions. This shows that by resorting to interlinkages, the informal lenders not only reduced the risk of default but also extracted higher interest rates.

However, it is appropriate here to examine the justification if any for the higher interest rates of informal credit if we take into account the risk of default and other costs of informal credit agencies. A perusal of Table 7.2 reveals that lender's risk is not a justification for the higher interest rates of both linked and non-linked credit. Though the default rates are higher for non-linked credit, field observations did not reveal any write off of bad debts by the informal lenders. Even though the non-linked loans are overdue at the time of the survey, it is possible that the defaulted amounts may be recovered subsequently.⁵

We have already observed (Table 7.1) that the effective interest rates of informal credit are higher for agricultural labourers than that of cultivators. However we have also noted earlier that the default rates are higher for agricultural labourers than that of cultivators. Therefore, we may further examine here whether the high interest rates can be attributed to high default rates in case of

5. Risk premium is assumed as 10% of amount of default in the above analysis. Even if we assume the risk premium as 100% of amount of default, the interest rates of linked loans can not be justified.

Table 7.2
Comparison of Interest Rates and Cost of Lending of
Informal Credit

Particulars	Effective interest rate (% p.a.)	Rate of default per Ra.100 loan	Lending costs of informal credit		Surplus/ Return to the lender (2-5)
			Risk premium ¹ per Rs.100 loan	Total* costs per Rs.100 loan	
1	2	3	4	5	6
<u>Developed village</u>					
Linked Credit	38.14	14.31	1.43	21.43	16.71
Non-linked credit	34.90	47.52	4.75	24.75	10.15
All informal credit	36.85	28.21	2.82	22.82	14.03
<u>Commercialised village</u>					
Linked Credit	41.11	9.90	0.99	20.99	20.12
Non-linked credit	17.23	66.15	6.62	26.67	-9.39*
All informal credit	39.31	19.57	1.96	21.96	17.35
<u>Backward village</u>					
Linked Credit	40.00	14.86	1.49	21.49	18.51
Non-linked credit	33.39	76.20	7.62	27.62	5.77
All informal credit	38.57	39.72	3.97	23.97	10.95

Note: 1. Risk premium is assumed as 10% of amount of default. It is to be noted here that provision for write off of substandard assets (loans overdue over a period of less than two years) of commercial banks is also fixed as 10% as per the RBI guidelines (RBI Monthly Bulletin, May 1993).

2. Total costs of lending of Rs.100/- loan include (i) the cost of funds (assumed as 18%) + (ii) administrative costs (assumed as 2%) + (iii) risk premium.

* Observations are only 7. The effective interest rates distorted due to the interest free loan.

agricultural labourers. It can be seen from Table 7.3 that though the default rates are higher in case of agricultural labourers, the high interest rates can not be attributed to the risk of default.⁶

Therefore, the foregoing analysis reveals that the differences in interest rates between agricultural labourers and cultivators can not be attributed to risk. If it can not be attributed to risk, what is the reason for the higher interest rates for agricultural labourers? Whether agricultural labourers are associated with exploitative credit linkages due to their weak bargaining power? To seek the explanation for the above, we may now examine the differences in interest rates among various types of linked credit transactions entered by size groups.

A perusal of Table 7.4 reveals that the implicit interest rates and consequent effective interest rates are higher for labour market linkages with which most of the credit transactions of agricultural labourers are associated with. On the other hand, the implicit interest rates are lower for input-output market linkages with which most the credit transactions of cultivators are associated with. This may be one of the important factor for the differentials in implicit interest rates and effective interest rates between the agricultural labourers and cultivators.

Whether the above analysis implies that the agricultural labourers are having low bargaining power vis-a-vis their

6. Even we assume the risk premium as 40% of amount of default, the high interest rates of agricultural labourers can not be justified.

Table 7.3
Comparison of Effective Interest Rates and Costs of Lending
of informal Credit Provided to Occupation Groups

Occupation group/ village	Effective interest rate Per annum (%)	Amount of de- fault per Re.100 loan	Costs of lending		Surplus/ Return to the lender (2-5)
			Risk pre- mium ¹ per Ra.100 loan	Total ² costs per Rs.100 loan	
1	2	3	4	5	6
<u>Developed village</u>					
Agricultural labourers	37.74	43.67	4.37	24.37	13.37
Cultivators	36.59	19.01	1.90	21.90	14.69
<u>Commercialised village</u>					
Agricultural labourers	46.93	36.28	3.63	23.63	23.30
Cultivators	35.71	9.37	0.94	20.94	14.77
<u>Backward village</u>					
Agricultural labourers	46.46	41.00	4.10	24.10	22.36
Cultivators	33.80	38.96	3.90	23.90	9.90

Note: 1. Risk premium is assumed as 10% of amount of default. It is to be noted here that provision for write off of substandard assets (loans ever due over a period of less than two years) of commercial banks is also fixed as 10% as per RBI guidelines (RBI Monthly Bulletin, May 1993).

2. Total costs of lending of Rs.100/- loan include
 (i) cost of funds (assumed as 18%) +
 (ii) administrative costs (assumed as 2%) +
 (iii) risk premium.

Table 7.4

Effective Interest Rates of Occupation Groups along different Types of Linkages

(Figures in percentages)

Type of linkage	AGRICULTURAL LABOURERS				CULTIVATORS			
	No. of credit transactions	Explicit interest rate per annua (%)	Implicit costs per Rs.100/- of loan (%)	Total effective interest rate per annul(%)	No. of credit transactions	Explicit interest rate per annul (%)	Implicit costs of loan (%)	Total effective interest rate per annul (%)
1	2	3	4	5	6	7	8	9
<u>Developed village</u>								
Land Market	6	16.08	16.05	34.13	1	36.00	-	36.00
Labour market	10	16.06	29.45	45.51	-	-	-	-
Input-output market	4	16.96	7.15	24.11	32	31.64	6.96	38.60
Other linkages	6	-	43.60	43.60	15	21.06	17.59	38.65
All linked credit	26	14.11	24.86	38.97	48	28.86	8.91	37.77
Non-linked credit	11	35.67	-	35.67	26	34.51	-	34.51
Total informal credit	37	18.61	19.13	37.74	74	31.12	5.47	36.59
<u>Commercialised village</u>								
Land market	1	-	30.77	30.77	-	-	-	-
Labour market	23	26.32	26.37	52.69	5	19.59	24.49	44.08
Input-output market	4	32.32	17.42	49.74	25	27.74	7.99	35.73
Other linkages	2	-	30.91	30.91	3	-	48.77	48.77
All linked credit	30	25.37	25.83	51.20	33	26.93	8.98	35.91
Non-linked credit	3	10.45	-	10.45	4	30.77	-	30.77
Total informal credit	33	23.64	23.29	46.93	37	27.17	8.54	35.71
<u>Backward village</u>								
Land market	-	-	-	-	5	15.95	0.44	16.39
Labour market	13	26.74	17.91	44.65	3	11.08	24.11	35.19
Input-output market	11	22.35	33.99	55.85	19	26.24	13.85	40.09
Other linkages	9	-	49.45	49.45	8	5.84	26.91	32.75
All linked credit	33	24.83	24.03	48.91	35	22.09	12.56	34.65
Non-linked credit	10	37.87	-	37.81	12	30.66	-	30.66
Total informal credit	43	27.90	18.56	46.46	47	24.02	9.78	33.80

Note: Only repaid credit transactions are considered here.

Source: Field data.

lenders uniformly in all the villages? Are there differences among the villages in terms of bargaining power? In order to probe it further, the absolute differences of the effective interest rates of credit transactions associated with various types of linkages with that of non-linked credit are calculated. The differences indicate how much extra interest rate was paid by the two occupation groups for the credit linked with various types of linkages over that of non-linked credit. Based on these differences, we may assess which type of linkage is more disadvantageous compared to that of other linkages and discuss the explanations for the same.

It can be observed from Table 7.5 in case of agricultural labourers, the absolute differences are highest for labour market linkages than that of all other types of linkages in commercialised village. On the other hand, it is interesting to note that the differences of labour market linkages are the lowest among all the types of linkages associated by agricultural labourers in the backward village. The field observations reveal that the labour market linkages include the "migration contracts" which are more disadvantageous / exploitative in commercialised village. Under these linked credit contracts the bargaining power of agricultural labourers is very low,⁷ as they were taken to far-off places like Gujarat, Madhya Pradesh and put to hard non-agricultural work for long periods ranging 6 to 9 months. The agricultural labourers enter into this type of credit contract only as a last resort.

7. Though we could not quantify the bargaining power, we used the terms such as 'low' and 'good' bargaining power based on the field observations.

Table 7.5

Absolute Differences of Effective Interest Rates of Linked Credit over Non-linked Credit of Agricultural labourers

Village/ occupation group	Types of major linkages/ involved lenders	Linked credit		Non-linked credit		Absolute difference between (4) & (6) CC(4)-C(6)
		No. of transa- ctions	Effective interest rate (% p.a.)	No. of transa- ctions	Effective interest rate tt p.a.)	
1	2	3	4	5	6	7
<u>Developed Village</u>						
Types of linkages	i) Labour market	10	45.51	11	35.67	9.84
	ii) Other linkages (Nagu, Vadla Vappandam)	6	43.60			7.93
	iii) All linked credit	26	38.97			3.30
Types of lenders	i) Agricultural money lenders	10	40.11	5	34.63	5.48
	ii) Employer farmers	5	37.62	-	-	1.95
	iii) Labour contractors	4	52.11	-	-	16.44
	iv) All lenders	26	38.97	11	35.67	3.30
<u>Commercialised village</u>						
Types of linkages	i) Labour market	23	52.69	3	10.45-	42.24
	ii) All linked credit	30	51.20			40.75
	iii) Employer farmers	16	56.77	-	-	46.32
Types of lenders	i) Agricultural money lenders	6	37.79	2	28.17	9.62
	ii) Labour contractors	4	60.06	-	-	49.61
	iii) All lenders	30	51.20	3	10.45*	40.75
<u>Backward village</u>						
Types of linkages	i) Labour market	13	44.65	10	37.87	6.84
	ii) Input-output market	11	55.85			18.04
	iii) Other linkages	9	49.45			11.64
	iv) All linked credit	33	48.91			11.04
Types of lenders	i) Agricultural money lenders	10	47.29	8	38.60	8.69
	ii) Employer farmers	8	47.16	0	-	9.29
	iii) Commission agents	10	60.90	-	-	23.03
	iv) Labour contractors	5	7.74	-	-	30.13
	v) All lenders	33	48.91	10	37.87	11.04

Notes. 1. Only repaid transactions are considered.

* Effective interest rate of non-linked credit is very low, since one of the three credit transactions are interest free as the loan was availed from close relative. Hence the interest rate (if non-linked credit and the consequent variances are distorted).

Besides the above exploitative nature of migration contracts, the labour market linkages in commercialised village include casual labour contracts with child labour by cotton seed farmers and the annual farm servants, whose terms are also more disadvantageous to the agricultural labourers. Though the default rates are high in case of labour market linkages, these high interest rate can not be attributed to high risk, as there is an incentive both for employers of AFS and labour contractors for keeping a part of a loan unpaid so as to enable them to perpetuate the debt and ensure the continuity of labour contracts.

On the other hand, in the backward village, the migration contracts' entered into by agricultural labourers are more advantageous to them. It involves seasonal migration for 5 times in a year to nearby areas* of Raichur district (about 30 km. away from the backward village) for transplantation and harvesting. The agricultural labourers voluntarily go for migration work every year and maintain a very good relationship with the large farmers of the area and hence could get loans from them with and without interest also. As the large farmers of the area heavily depend on these migrant labourers for their agricultural operations during peak seasons, they provide loans in advance and send informants/maistries to the backward village to meet the busy operations. The income from these 'migration' (suggi) is the major income for most of the agricultural labourers in the backward village. They do the agricultural operations on 'piece contract' basis in groups and do not restrict to a single farmer. After completion of work of a farmer, they

take up the work of others. Hence the bargaining power of agricultural labourers is quite good.⁸ Therefore the labour market linkages are advantageous compared to that of all other types of linkages in the backward village.

However, in the developed village, though the absolute differences of labour market linkages are the highest among all other types of linkages entered by agricultural labourers, labour market linkages include the credit linked with AFS which is slightly less disadvantageous compared to migration contracts. The nature of AFS contracts were better in developed village than the other two villages, as their bargaining power is good due to other employment opportunities. The limited transactions under migration contracts actually pushed up the effective interest rates of credit linked with labour market. If we exclude them, the differences of labour market linkages are even less than that of other types of linkages entered by agricultural labourers such as naga, vadla voppandam etc. in the developed village.

Table 7.5 further reveals that the effective interest rates as well as absolute differences between the interest charged by labour contractors are highest in both the developed and commercialised villages, as the bargaining power of agricultural labourers under "migration contracts is lower as discussed earlier. However, it is vice-versa in the backward village as the bargaining power of agricultural labourers is better under seasonal migrational activities and the interest rates are very low and advantageous to them. On

8. Based on field perceptions.

the other hand, the interest rates charged by employer farmers are higher in commercialised village and lower in developed village. It may be due to better terms of the contracts in developed village compared to that of commercialised and backward villages. Though the interest rates charged by employer farmers is higher in backward village than that of developed village, their absolute differences are lower than other types of linkages in the backward village.

The foregoing analysis reveals that the agricultural labourers are in less disadvantageous position vis-a-vis the lenders associated with labour market linkages in the backward village and developed villages due to better bargaining power. On the other hand, agricultural labourers are in vulnerable position in the commercialised village due to weak bargaining power vis-a-vis the lenders associated with labour market linkages. The better employment opportunities due to seasonal migration in the backward village put them in a better bargaining position compared to that of commercialised village,

It is also interesting to note from Table 7.6 that the effective interest rates and absolute differences of interest rates of credit linked with input-output market entered by cultivators are lower than that of other types of credit linkages in the commercialised village. On the other hand, the effective interest rates and absolute differences are higher in case of input-output linkages than that of other linkages associated with cultivators in the backward village.

It is further to be noted from Table 7.6 that the

Table 7.6**Absolute differences of Effective Interest Rates of Linked Credit over Non-linked Credit paid by Cultivators**

Village/ occupation group	Major types of lenders involved	Linked credit		Non-linked credit		Difference between (4) & (6) [C4)-C(6)
		No. of transa- ctions	Effective interest rate (%)	No. of transa- ctions	Effective interest rate	
1	2	3	4	5	6	7
<u>Developed Village</u>						
Types of linkages	i) Input-output market	32	38.60	26	34.51	4.09
	ii) Other linkages	15	38.65			4.14
	iii) All linked credit	48	37.77			3.26
Types of lenders	i) Agricultural money lenders	12	38.33	14	35.72	2.61
	ii) Input traders	23	38.76	-	-	4.25
	iii) Commission agents	9	39.37	-	-	4.86
	iv) All lenders	48	37.77	26	34.51	3.26
<u>Commercialised village</u>						
Types of linkages	i) Input-output marker	25	35.73	4	30.77	4.96
	ii) Labour market	5	44.08			13.31
	iii) All linked credit	33	35.91			5.14
Types of lenders	i) Farter lenders	8	46.91	3	30.92'	15.99
	ii) Commission agents	25	35.73	4	30.77	4.96
	iii) All lenders	33	35.91			5.14
<u>Backward village</u>						
Types of linkages	i) Input-output market	19	40.09	12	30.66	9.43
	ii) Other linkages	8	32.75			2.09
	iii) All linked credit	35	34.65			3.99
Types of lenders	i) Landlords	6	20.43	-	-	-10.23
	ii) Agricultural money lenders	7	32.27	5	31.04	-1.77
	iii) Commission agents	19	40.09	-	-	9.43
	iv) All lenders	35	34.65	12	30.66	3.99

Note: 1. Wherever the non-linked transactions are not existing, the interest rates of all lenders in the occupation group are considered for computation of variance.

2. Only repaid transactions are considered.

* In case of commercialised village, the variances are slightly distorted due to the very low interest

rates to non-linked credit as it includes the interest *trte* loan front close relatives.

Source: Field data.

commission agents who advance loans to the cultivators mostly growing groundnut crop and organise the sale of groundnut output marketed by the farmers proved to be less disadvantageous to the cultivators in the commercialised village and more exploitative in the backward and developed villages. Though the absolute differences between interest rates of commission agents and other types of lenders is not so considerable in developed village., the differences are very high in the backward village. On the other hand, the differences of interest rates charged by commission agents are considerably lower than that of other types of lenders in the commercialised village. It is also to be pointed out here that we have already observed earlier the flow of formal credit is poor to the large cultivators of commercialised village than that of backward village. We have further observed earlier that the commission agents are the major source of credit to the cultivators of commercialised village. Despite the above factors the interest rates charged by commission agents are considerably lower and credit from them proved to be less disadvantageous compared to that of other major types of lenders. This may be due to the better bargaining power of the cultivators of commercialised village, since they produce and supply larger quantities of groundnut output to the regulated market yard in which the commission agent-cum-lenders are operating. As commission is the major income to the commission agents which depends on the quantity marketed by them, they charge lower explicit interest rates and operate cautiously in extracting the implicit interest rate to keep their business clientele (cultivators supplying groundnut output) intact and maintain the business turnover. Extracting higher implicit costs

through unfair means such as under weighing of produce .may hinder their goodwill among the clientele and hence decrease in the business turnover and ultimately may result in the reduction in the total income. Hence quantity of groundnut output marketed by a farmer imparts more bargaining power to the cultivator in borrowing a loan from commission agent. As there is considerable competition in the market yard among the commission agents, the farmer who supplies larger quantities of output may not find it difficult to switch over to the other commission agent-cum-lender if he doubts the integrity of his earlier commission agent in organising the sale of his output. Therefore the credit transactions between commission agents and cultivators in the commercialised village are proved to be mutually advantageous.

On the other hand, the credit transactions from commission agents are disadvantageous to the borrower households in the backward village. Since the cultivators of the backward village grow tiny extents of groundnut crop due to lower irrigation facilities, they have lower bargaining power in borrowing a loan from commission agents and finds it difficult to switch over to other commission agent-cum-lender. Though there is competition among the commission agents, since the quantity of output supplied by them is meagre, the cultivators have to take time to establish credit rating and borrow sizable loan from the new lender. Hence the commission agents have higher bargaining power in lending a loan due to monopolistic competition and hence he extracts higher implicit costs from the borrowers of backward village. Therefore the interlinked credit transactions with commission

agents are proved to be exploitative to both agricultural labourers and cultivators in the backward village. Thus the analysis reveals contrasting nature of association between cultivators and lenders in two of the villages mainly due to the relative bargaining power of the cultivators involved.

It can also be seen from Table 7.6 that the absolute differences of interest rates of linked credit charged by landlords over that of non-linked credit are negative i.e., the effective interest rates of linked credit provided by landlords to the tenants are lower than that of non-linked credit. As the lands are rainfed and unproductive in the backward village, it becomes difficult for the landlords to find suitable tenants. Hence landlords provide credit to the tenants at lower interest rates than that of market rates of interest. Hence the differences of linked credit from landlords is negative.

After observing the interest rates charged by various lenders, it may be appropriate here to examine the differences of interest rates if any paid by the occupation groups to the loans availed for different types of purposes. The explicit and implicit interest rates for loans of various purposes are depicted in Table 7.7.

The implicit interest rates are higher for consumption loans than that of crop production loans for both the occupation groups in developed and commercialised villages. On the other hand, it is vice-versa in the backward village. As we have already observed earlier, it may be due to the higher implicit costs collected by the commission agents in the backward village, who largely finance for the production

Table 7.7**Explicit and Implicit Rates of Interest paid by the Occupation Groups for Various Purposes**

Type of lenders	AGRICULTURAL LABOURERS				CULTIVATORS			
	No. of credit transactions	Explicit interest rate p.a.	Implicit interest rate	Effective interest rate p.a.	No. of credit transactions	Explicit interest rate p.a.	Implicit interest rate	Effective interest rate p.a.
<u>Developed village</u>								
i) Crop production	16	31.13	6.52	37.65	66	31.31	5.61	36.92
ii) Agricultural investment	-	-	-	-	3	34.26	-	34.26
iii) Consumption	19	13.76	25.37	39.13	5	29.23	6.01	35.24
iv) Other purposes	2	-	16.30	16.30	-	-	-	-
<u>Commercialised village</u>								
i) Crop production	7	26.52	13.66	40.18	32	27.14	8.22	35.36
ii) Agricultural investment	-	-	-	-	-	-	-	-
iii) Consumption	21	25.78	18.94	44.72	5	28.35-	24.49	52.84
iv) Other purposes	5	13.82	43.16	56.98	-	-	-	-
<u>Backward village</u>								
i) Crop production	25	28.48	21.57	50.05	37	24.53	12.19	36.72
ii) Agricultural investment	3	26.21	28.60	56.81	5	22.77	-	22.77
iii) Consumption	12	27.58	12.81	40.39	5	22.23	6.33	28.56
iv) Other purposes	3	0.00	0.00	0.00	-	-	-	-

Note: Only repaid credit transactions are considered.

Source: Field data.

purpose only. Similar pattern is observed in case of effective interest rates also except in case of cultivators of developed village to whom the effective interest rates of production loans are marginally higher than that of consumption loans.

The absolute differences of effective interest rates of linked credit over that of non-linked credit for major purposes presented in Table 7.8. It reveals that the linked loans advanced for production purposes are less disadvantageous to both the occupation groups than consumption loans in the developed and commercialised villages. Among the consumption loans, the linked loans borrowed for food and other consumption purposes are more exploitative. On the other hand, the production loans are more exploitative than that of consumption and other loans in backward village.

The foregoing discussion reveals that a number of factors such as linkage, occupation group to which the household belongs, type of lender involved, type of purpose of loan are influencing the effective rate of interest on the informal loan. However, it has to be examined whether size of loan and duration of loan also have any influence on the effective rate of interest of informal loan.

A perusal of Table 7.9 reveals that the size of loan is largely in negative association with the effective interest rate except in developed village. On the other hand, the mean duration of loan and mean effective interest rates are in positive association. However the pattern is different the backward village. We have already observed earlier that

Table 7.8

Absolute differences of Effective Interest Rates of Linked Credit over Non-linked Credit paid by Occupation Groups for Various Purposes

Village/ occupation group	Major types of purposes for which loans were borrowed	Linked credit		Non-linked credit		Variance of (4) over (6)
		No. of transa- ctions	Effective interest rate (%) .	No. of transa- ctions	Effective interest rate (%)	
1	2	3	4	5	6	7
<u>Developed Village</u>						
Agricultural labourers	Crop production	10	37.74	6	36.00	1.74
	Marriage	8	42.07	2	33.60	8.43
	Food & other consumption	4	65.61	3	42.21	23.40
	All purposes	26	38.97	11	35.67	3.30
Cultivators	Crop production	46	37.90	20	34.72	3.18
	All purposes	48	37.77	26	34.51	3.26
<u>Commercialised village</u>						
Agricultural labourers	Crop production	6	47.14	1	24.00	23.14
	Marriage	7	47.63	1	0.00	47.63
	Food & other consumption	8	94.23	-	-	83.78
	Other purposes	5	56.98	-	-	46.53
	All purposes	30	51.20	3	10.45	40.75
Cultivators	Crop production	29	35.59	3	28.29	7.30
	All purposes	33	35.91	4	30.77	5.14
<u>Backward village</u>						
Agricultural labourers	Crop production	19	50.75	6	38.10	12.65
	All consumption	9	41.17	3	38.12	3.05
	All purposes	33	48.91	10	37.87	11.04
Cultivators	Crop production	31	37.73	6	27.58	10.15
	All purposes	35	34.65	12	30.66	3.99

Note: 1. Only repaid credit transactions are considered.

2. Wherever non-linked credit transactions under the same purpose are not existing, interest rate of all purposes in the group is considered for computation of variance.

Source: Field data.

Table 7.9
Effect of Size of Loan and Duration of Loan on the Effective
Rates of Interest of Occupation Groups in Selected Villages
(1991-92)

Village/ Occupation group	Average size of informal loan (Rs.)	Average duration of in- formal loan (months)	Mean rate of effective interest per annum
<u>Developed village</u>			
Agricultural labourers	3261	8.31	37.74
Cultivators	2729	5.14	36.59
All farm households	2906	6.33	36.85
<u>Commercialised village</u>			
Agricultural labourers	2167	7.45	46.93
Cultivators	3330	4.05	35.71
All farm households	2782	5.30	39.31
<u>Backward village</u>			
Agricultural labourers	1385	5.18	46.96
Cultivators	2075	5.36	33.80
All farm households	1745	5.29	38.57

Note: Only repaid credit transactions are considered.

Source: Field data.

the size of informal loans are higher for cultivators and for production purposes. We also seen earlier that the risk of default is low for production loans than other loans. Therefore it is possible that the rates of interest may be lower for larger loans given to well endowed borrowers with low default rate, as their bargaining position also may be high. On the other hand, small loans given for consumption purposes are prone for higher risk of default and hence attract higher interest rates.

However, as the duration of loan increases, the risk of default again plays an important role on the rates of interest. Regarding the agricultural labourers, as the loans are mainly for consumption purposes, the risk of default is also higher. As the duration of loan increases, the risk of default also increase. Since the mean duration of loans of agricultural labourers is higher than that of cultivators in both developed and commercialised villages, the interest rates are also higher than that of cultivators. However, the field observations reveal that the loan taken by agricultural labourers for food and other consumption purposes are very short in duration. We have already observed earlier that food and other consumption loans are the costliest among other loans. Hence it is also possible that the interest rate can be of negative association with the duration of loan for agricultural labourers.

Therefore to probe the issue further and to examine the various factors influencing the rate of interest,, we have employed the multiple regression analysis using the effective rate of interest rate as the dependent variable. We ran 6

sets of multiple regression analyses relating to agricultural labourers and cultivators of all the three villages separately.

The effective rate of interest may be dependent on the various factors as discussed below.

1. Size of loan (Rs.): As already discussed earlier, we expect this variable to be negatively associated with interest rate.
2. Duration of loan (months): We expect this variable to have negative association with interest rate for all agricultural labourers and positively associated with dependent variable for cultivators. However, among the agricultural labourers in different villages, the sign may change based on their bargaining position vis-a-vis the lenders.
3. Linked status of loan: Linked loan = 1 Otherwise = 0. We expect this to be positively associated with the dependent variable. However, we have not included in some of the models, wherever, we expect more association of a specific type of linkage with interest rate.
4. Nature of linkage: We „ have used two types of dummy variables here i.e., one for credit linked with labour market and another for credit linked with input-output market.
i) loan linked with labour = 1 Otherwise = 0
ii) loan linked with input-output markets = 1 Otherwise = 0. We have included wherever we expected clear association with dependent variable. We expect the dummy variable relating to credit linked with labour

market has positive association in case of agricultural labourers and negative association in case of cultivators. On the other hand, we expect vice-versa in case of the dummy variable of credit linked with input and output markets.

5. Purpose of loan: i) Loan for production purpose = 1
 Otherwise = 0 ii) Loan for consumption purpose = 1
 Otherwise = 0 Earlier we observed in tabular analysis that the crop production loans are comparatively cheaper than consumption loans in developed and commercialised villages and vice-versa in the backward village. Hence we expect positive signs for the both the dummy variables. However, we expect the negative sign for the variable of production loan in case of cultivators of commercialised village, since we observed lower effective interest rates for production loans in that village.

6. Type of lender: Here also we used two dummy variables, one for trader lender and another for farmer lender
 i) trader lender = 1 Otherwise = 0 ii) Farmer lender = 1 Otherwise = 0 We expect positive sign for the variable of farmer lender in case of agricultural labourers and negative sign in case of cultivators. On the other hand, we expect positive signs for the variable of trader lender. However, we expect the sign of variable of trader lender as negative for cultivators in commercialised village as we have observed earlier that the effective interest rates charged by trader lenders are lower for cultivators in commercialised village due to the better bargaining position of the

latter. On the other hand, we noticed lower interest rates charged by farmer lender than that of trader lenders even. In case of agricultural labourers in backward village, since exploitative input-output linkages. Hence, we expect the sign of farmer lenders as negative for them.

The results of three sets of Multiple Regression analysis for agricultural labourers of three villages separately are presented in Table 7.10.

iv) Agricultural labourers of developed village:

Here the signs of all variables except that of duration of loan and loans linked with labour market are as expected. We expected the loans of agricultural labourers linked with labour market as positively associated. However, our regression results show that they are negatively associated with interest rate and statistically significant at 5% level. This may be due to the better terms and conditions of loans linked with annual farm servants system in this village compared to that of the loans under Nagu, Vadla voppandam, as already discussed earlier.

v) Agricultural labourers of commercialised village:

In this case all the variables are having expected signs. The coefficients of variables of size of loan and duration of loan are statistically significant at 5% level, while that consumption loan is significant at 10% level. Thus it reveals that the size of loan, duration of loan have negative influence on interest rate. On

Table 7.10

Dependent Variables Effective Rate of Interest paid by Agricultural Labourer Household on an Informal Loan in Selected Villages in percentage per annum (1991-92)

Explanatory variable	Developed village		Commercialised village		Backward village	
	Coefficient	'T' value	Coefficient	T value	Coefficient	'T' value
1. Size of loan (Rs.)	-0.0009	-1.41	-0.0254**	-2.12	0.0015	0.68
2. Duration of loan (months)	0.7175	0.68	-26.4173**	-2.37	2.3669***	1.91
3. Linked status of loan						
Linked loan = 1	-	-	33.3870	0.39	-	-
Otherwise = 0						
4. Dummy for Nature of linkage						
Linked with labour = 1	-11.5779**	-2.05	-	-	-26.2639**	-2.36
Otherwise = 0						
5. Dummy for Production purpose = 1	18.1597	1.35	-	-	8.8943	0.57
Otherwise = 0						
6. Dummy for Consumption purpose = 1	16.8119	1.12	109.2530***	1.78	10.4620	0,81
Otherwise = 0						
7. Dummy for Type of lender 1						
Trader lender = 1	6.2775	0.58	-	-	24.1525	1.65
Otherwise = 0						
8. Dummy for Type of lender 2						
Farther lender = 1	2.0320	0.38	2.6410	0.04	-3.3954	-0.27
Otherwise = 0						
Intercept :	19.4551		233.5970		23,3330	
R ² :	0.3082		0.2955		0,5123	
'F' value :	1.84		2.26		5,25	
No. of observations :	37		33		43	

** Coefficient is significant at 5% level.

*** Coefficient is significant at 10% level.

the other hand consumption purpose has significant positive association with interest rate.

vi) Agricultural labourers of backward village:

Here the signs of 4 variables are other than expected. The size of loan which is negative in all the models, is positive here. As the loans under labour market linkages given by farmer lenders are cheaper than that of loans given by trader lenders under input-output linkages, the signs of loans under labour market linkages as well as that of farmer lenders are negative. We can also observe that the coefficient of variable of trader lender is highly positive though not statistically significant. The coefficient of duration of loan, labour market linkages are statistically significant at 10% and 5% levels respectively. This shows the positive effect of loans given by trader lenders on the interest rates of loans given to the agricultural labourers also besides the exploitative character on cultivators⁹ in the backward village.

Finally another set of results of three multiple regression analysis for cultivators of three villages separately are presented in Table 7.11.

vii) Cultivators of developed village:

Though signs of all variables are in expected direction, the results are very poor No coefficient is

9. Discussed subsequently.

Table 7.11

**Dependent Variables Effective Rate of Interest paid by Cultivators on an Informal Loan in Selected Villages
in percentage per annul (1991-92)**

Explanatory variable	Developed village		Commercialised village		Blackward village	
	Coefficient	T value	Coefficient	T value	Coefficient	'T' value
1 Size of loan (Rs.)	-0.0003	-0.39	-0.0019	-1.08	-0.0026**	-2.14
2 Duration of loan (tenths)	0.6920	0.62	3.4045	0.72	-1.2438	-0.74
3 Linked status of loan						
. Linked loan - 1 Otherwise = 0	-	-	53.6533**	2.56	-	-
4 Dummy for Nature of linkage						
. Linked with input and output market = 1 Otherwise = 0	1.8099	0.30	-	-	20.8097"	2.45
5 Dummy for						
. Production purpose = 1 Otherwise = 0	-	-	-80.5322*	-4.03	-	-
6 Dummy for						
. Consumption purpose = 1 Otherwise = 0	6.9083	0.74	-	-	-7.9337	-0.80
7 Dummy for Type						
. of lender 1 Trader lender = 1	-	-	-11.4843	-0.64	-	-
8 Dummy for Type						
. of lender 2 Farter lender = 1 Otherwise = 0	-0.9265	-0.16	-	-	-5.0684	-0.63
Intercept :	34.1595		75.5043		43.3750	
R ² :	0.0198		0.5943		0.3662	
'F' value :	0.27		9.08		4.74	
No. of observations:	74		37		47	

* Coefficient is statistically significant at 1% level.

** Coefficient is statistically significant at 5% level.

statistically significant, R^2 is very low and $*F^f$ value is highly insignificant.

viii) Cultivators of commercialised village:

Here the signs of all coefficients are as expected. The coefficients of linked status of loan and of loan for production purpose are highly significant at 5% and 1% level respectively. The coefficient of variable of trader lender is having negative sign, though not significant. The results reveal that though the linked loans are costlier than non-linked loans, the loans given by trader lenders for production purpose are cheaper. It shows the mutually advantageous relationship of cultivators and trader lenders in the commercialised village, as discussed earlier.

ix) Cultivators of backward village:

On the other hand in the backward village, the loans given under input-output linkages by trader lender are highly disadvantageous, while consumption loans given by farmer lenders are cheaper in the backward village, as the signs of variables of consumption purpose and farmer lender are negative and that of input-output linked loans is positively significant. The coefficients of loan size, loans under input-output linkage are significant at 5% level.

Thus the results of Multiple Regression analysis confirms our earlier discussion of mutually advantageous position of cultivators and trader lenders in commercialized

village, while that of disadvantageous nature of input-output linkages in backward village.

Earlier, while reviewing similar studies, we noticed that Bell and Srinivasan (1989) who observed extensive links of credit to output in commercialised areas felt that the evidences hardly support that usury is the dominant form of exploitation and they observed the links to be mutually beneficial to both the parties involved in input-output linkages. On the other hand, Platteau and Abraham (1987), Reddy (1992) observed that credit output linkages served as an exploitative device, since the traders indulged in various price cutting and other fraudulent marketing practices to derive supernormal profits. We observed both the contrasting types of association of the cultivators with trader lenders in two different villages. The input-output linkages found in the commercialised village are mutually advantageous to both the parties as observed by Bell and Srinivasan. On the other hand, the input-output linkages observed in the backward village are exploitative as found by Platteau and Abraham and Reddy in their studies.¹⁰

Further, it is found by other scholars that the credit labour linkages in backward areas are exploitative through wage cuts and extended working hours (Ashok Srivastava 1989). On the other hand, Reddy (1992) found credit relations with

10. However, it is to be noted here that the 'developed', and 'commercialised' villages in the present study, form part of one of the most backward districts in Andhra Pradesh i.e., Mahabubnagar district. Hence they can not represent 'developed' and 'commercialised' regions in its true sense. The pattern of developed/commercialised villages may be influenced by its location in a developed region or backward region.

labour market in developed village were beneficial to both the parties because there were interest free loans with ho wage cuts to agricultural labourers and assured supply of labour in peak season for employer creditors. In the foregoing analysis we also observed the above contrasting nature of credit labour linkages in two different villages. In the backward village, the credit labour linkage has a reducing influence on the interest rates of loan while in commercialised village, they are of increasing effect on effective interest rates.

Therefore, it can be inferred that it is not the type of linkage which influence the positive or negative effect on the cost of credit, but it is relative bargaining power of the parties involved and the relative urgency/importance of the transaction to the concerned parties which have more influence to decide the nature of linkage to be exploitative or mutually beneficial.