

## CHAPTER II

### RURAL CREDIT MARKETS : AN OVERVIEW

There exists a dichotomy in the Rural Credit Markets in India, comprising of formal and informal agencies on the supply side as well as small and large farmers (at the two extremes) on the demand side. The formal credit market in rural India is "organised" mostly either by the Government or with the involvement of Government bodies and subject to 'regulation' under the provisions of Banking Regulation Act as well as Reserve Bank of India. It is highly 'institutional' in character with its large scale operations, and offers a wide range of financial services over a large geographical area. However, the credit operations of formal agencies are highly complex involving various formalities and procedures<sup>1</sup>. The formal agencies which include Government, Cooperatives, commercial banks and Regional Rural Banks expected to provide cheaper credit in the form of subsidised interest rates to rural households.

The informal credit market involves the "private agencies" and not subject to or rather immune to the regulations of Government, Reserve Bank of India and Banking Regulation Act. It is characterised by its "non-institutional" and "personalised" operations limited to a certain area, a village, or a small group of persons. The informal agencies which include landlords, employer farmers, moneylenders, traders, commission agents, indigenous bankers, friends and relatives etc. said to provide credit with

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1. B.M.Desai (1982).

relatively high rates of interest. However, the informal credit agencies are flexible in their credit operations with simple procedures and link credit with other non-credit activities.<sup>2</sup>

### **Need for cheap institutional credit in rural areas:**

The informal credit dominated the rural credit scene in India during Pre-Independence era as well as in the early years after independence and it accounted for 92.7 per cent of the total rural borrowings in 1951. The money lender's share in total borrowings was as high as 76.7 per cent at that time in his various guises of professional money lender, agricultural moneylender, trader and landlord. (All India Rural Credit Survey 1951-54). But for the flexibility of its operations, the informal credit was criticised by various expert committees<sup>3</sup>. It was argued that the activities of informal credit agencies were highly exploitative, providing credit for wasteful expenditure, charging high interest rates ranging from 25 per cent to 150 per cent per annum by falsifying loan accounts. (Agarwal 1955, Mahabal 1955, Parthasaradhi 1955, and Tirumalai 1956).

The institutional credit system in India for the rural sector refurbished in the modifies in the wake of above negative views about informal credit. The need for an alternative was felt to ensure adequate supply of credit for

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2. See Ghatak (1976) and Bouman (1989) for detailed differentiation of formal and informal markets.

3. Agricultural Finance Sub-Committee (1945), AIRCS (1951-54),

production/investment purposes at low rates of interest on simple terms by replacing the informal lender.<sup>4</sup>

Support for cheap credit policies came from arguments such as the farmers are too poor to pay the normal rates of interest under the prevailing high risks and uncertainties (CH H Rao, 1970), as well as low productivity in agriculture coupled with high income disparities between rural and urban sectors (Lipton 1976).

In short, all signs pointed towards supplying rural credit through formal institutions at cheap rates of interest.

### **Growth in Supply of Formal Credit**

In their effort to ensure adequate supply of formal credit to rural areas, Government of India and RBI have taken several steps for institutional development<sup>5</sup>, regulation of

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4. Meanwhile, the theoretical basis for intervention through the financial system for the sake of development was enhanced by Patrick (1966), describing the advantages and potentiality of 'supply leading approach' of finance. He suggested the establishment of financial institutions and provision of loanable funds, in advance of established demand, as a means of stimulating the pace of investment and economic development.
  5. There are three major types of formal agencies operating in rural India. The cooperatives having three tier structure for short term credit and two tier structure for long term credit, operate in the form of Primary Agricultural credit societies(PACSS) and Primary Agricultural Development Banks at the farmers level for short term and long term credit respectively. The commercial banks advance both short and medium term loans through their branches at the village level. Finally, the Regional Rural Banks(RRBs) sponsored by the commercial banks focus exclusively on small and marginal farmers and weaker sections, but function on the lines of commercial banks advancing both short and medium term loans at a single point. However, each RRB limits its area of operation to one or two districts only.

credit flow to the desired sections as well as for provision of credit at cheap interest rates.

The years since 1961 have witnessed a phenomenal expansion of numbers in all formal credit agencies in India. The major achievement of institutional credit sector, especially the banking system has been very impressive which has brought down the population served per bank office from about 65000 in 1969 to 36000 in 1973 (Rangarajan 1974) and then to about 13000 at present. Since Nationalisation of major commercial banks in July 1969, these banks started playing substantive role in dispensing rural credit. During the period from June 1969 to December 1986, the total number of rural branches increased eleven times. The growth in deposits and credit during this period was about 23 times and 19 times respectively and priority sector advances increased 53 times. Thus after nationalisation, rural people have come to be served quite extensively by commercial banks (Khusro Committee, 1989). The commercial banks are mandated to achieve certain targets and subtargets under priority sectors such as agriculture, small scale industries, small business etc.<sup>6</sup> All these targets were achieved by banks by March 1988. Only now, there are indications of slight sliding down from the targets. The share of commercial banks in IRDP (Integrated Rural Development Programme) loans is the highest constituting about 70 per cent.

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6. To regulate credit from the commercial banks to agriculture and other "priority sectors", RBI fixed credit targets of 18 percent of net bank credit to agriculture and 40 percent of net bank credit to priority sectors including agriculture. A minimum credit - deposit ratio of 60 percent has also been fixed for rural/semi-urban branches to prevent the flow of funds from rural to urban areas.

With a view to combine the local feel and familiarity with the rural problems which the cooperatives possess and the degree of business acumen and modernised outlook which the commercial banks have, as well as to reach the rural poor more extensively with low costs of administration, Regional Rural Banks (RRBs) were established in 1975. Though performance of RRBs has been impressive in the deployment of rural credit, some serious organisational problems creep in such as non-viability poor recoveries etc.

The overall position in respect of recovery of loans has continued to be unsatisfactory in all types of formal credit agencies. However, the evidences are inconclusive with regards to the incidence of overdues based on the agency, size class or regions. Some of the studies did not find any variation in the incidence and quantum of overdues among farm size groups (Bhende, 1986, Khusro Committee, 1989, Ranga Reddy, 1990).<sup>7</sup> On the other hand, Sarap (1991) found that the largest borrowers are the largest defaulters.<sup>8</sup> Though many factors are cited as reasons for the large extent of overdues of the formal credit which affect the ability to repay as well as willingness to repay, the wilful default appears to be emerged recently as an important factor due to various external factors such as loan melas, loan write off (Rural Debt Relief Scheme, 1990) and interest write off etc.

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7. Ranga Roddy (1990) has conducted a survey of 24 primary agricultural cooperative credit societies (PACS) and 192 defaulters in these societies in Guntur district during 1982-83.

8. Lipton (1976) reports the same through evidences from other parts of the world.

However, evidences reveal that the recovery of loans is better in case of informal loan than that of formal loans (Binswanger et. al. 1985) due to various controls exercised by informal lenders such as variation in interest rates, collateral, duration of loans as well as inter-linkages of credit.

However, a reduction in the degree of influence of informal credit on the cultivators and a steady growth in the share of lendings from the formal agencies over the years is revealed (Table 2.1) by the comparison of findings of All India Rural Credit Survey (1951-54) and All India Debt and Investment Survey (1981-82).<sup>9</sup>

**Table 2.1**  
**Share of formal and informal agencies in the borrowings of cultivators : All India**

Type of agency	1951 <sup>a</sup>	1971-72 <sup>b</sup>	1981-82 <sup>b</sup>
1. Formal agencies	7.3	21.7	56.2
2. Informal agencies	92.7	78.3	43.8
Total	100.0	100.0	100.0

Source: a. All India Rural Credit Survey Vol.11 P.167.  
b. All India Debt and Investment Survey 1981-82 p. 75.

Though the formal credit agencies displaced the rural informal lenders to a large extent, they resulted in the inequitable distribution of formal credit among different regions and across different size classes of farmers. Empirical evidence suggests that the formal credit is largely

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9. Bell (1990) challenged the official estimates of 1981-82 based on the independent field surveys by ICRISAT and a World Bank research project (UBRPO). He concluded that although the money lender did lose ground relative to institutions over the period from 1951 to 1981, he remained a very important source of finance to rural households.

biased in favour of large farmers<sup>10</sup> in the agriculturally developed regions thereby resulting in the continued dependence of rural poor in backward regions on informal credit. the farm households in backward regions on informal credit.

**Table 2.2**

**Evidences for skewed distribution of formal credit to developed regions**

S.No.	Author	Reference year	Data Sources	Findings
1.	B M Desai 1988	1977-78 to 1979-80	C S 0 data on states, Cooperative Movement in India(NABARD),RBI statistical statements relating to banks.	Degree of agricultural progress of a region is positively related to i)Density of institutions per 1000 ha. of Net sown area(ii)Amount of Agrl.credit per ha.
2	Haque and Verma 1988	1981-82	N S S data,Currency and Finance(RBI), Coop.Movement in India (NABARD)	The per hectare availability of Cooperative credit was very less ranging from Rs.28 to 86 in backward states like Bihar, Rajasthan.Orissa.M.P.,U.P..while the same was very high ranging from Rs.303to 1490 in developed states like Haryana, -Punjab and Kerala.
3.	Dadhibhavi 1988	1983-84	Currency and Finance, Coop.Movement in India Indian Agrl.statistics and Agrl.census.	Proportion of formal credit in comparison to the percentage of total cropped was very low for North eastern,Eastern,and central regions and very high for Southern India.
4.	D K Donai 1988	1974-75 and 1981-82	-	Pattern of distribution of short term agrl. credit per ha. did not change much over the period. It was continued to be skewed i favour of developed states like Kerala, Punjab, and Haryana.

10. However, a study made by Centre for Economic and Social Studies (1994) shows that the small farmers and their share is even sizable share of formal credit, and medium farmers in East Godavari district, a highly developed district in Andhra Pradesh. It may be largely due to the higher share of households and operated area to the small farmers than other larger size groups.

The empirical studies revealed that the formal credit distribution was highly skewed in favour of developed regions/States. (Table 2.2). Shivamaggi (1963), Rao (1970), Rangarajan (1974), Haque and Verma (1988) found that the distribution of formal credit was significantly lower to small farmers than that of large farmers.<sup>11</sup> The evidences from All India Rural Debt and Investment Survey (1981--82) also revealed that the groups of rural households having higher value of assets obtained higher shares of institutional credit while the lower asset groups mostly dependent on informal credit. Various microlevel field studies conducted in different parts of the country have also shown the lower access of formal credit to small farm households and their continued dependence on informal credit agencies (Table 2.3).

As observed from the above, the evidences from these studies show that the cheap loans from formal agencies largely concentrated among the big farmers. As the interest subsidy involved in the formal credit is proportional to the amount of money borrowed, the subsidy also ends up in a very small group of large borrowers.<sup>12</sup>

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11. a) Shivamaggi based on the data from Rural Credit follow up Surveys for 1956-57 to 1959-60.  
 b) Rangarajan (1974) used Basic Statistical Returns of 1972 and 1973, RBI.  
 c) CHH Rao used the evidences from AIRCS (1954) AIRCR (1966) AIRDIS (1961-62) and compared the time series data between 1962-63 and 1967-68 of IADP reports and a PEO study on working of Cooperatives (1959).  
 b) Uaque and Verma used the 37th round of NSS data.
12. Subba Rao (1985) observed that the benefits emanating from subsidised credit have accrued to the prosperous states, as they received higher amounts of credit per hectare.

**Table 2.3****Field evidences for lower access of formal credit to small to small farmers**

S.No.	Author	Reference year	Area of study	Findings
1.	Mohan Rao 1971	1968-70	Two districts in Andhra Pradesh	Small farmers share in commercial banks credit has no relation to their number or land held by them bulk of it went to rich farmers.
2.	Pande etal 1983		Ghaziabad district in Uttar Pradesh	Smallest group of farmers who owned 15% of total area received only 4.8% of total formal credit and 89.4% of total informal credit supplied to the total sample. Largest group who owned 40.1% of total area, received 59.2% of total formal credit and 2.8% of total informal credit.
3.	Kailas Sarap 1986	1980-81	Sambhalpur district in Orissa.	Smallest group who owned 3.7% of total area received only 1.19% of total credit formal agencies. Large farmer group who owned 42.45% of total area got 87% of total credit from formal agencies.
4.	Bhende 1986	1975	3 villages in A.P and Maharashtra	Institutional credit concentrated in richer households having large farm size.
5.	Purihar & Nar inder Singh	1984-85	Ludhiana district in Punjab.	As the farm size increased, percentage of formal credit also increased.
6.	Sathya Sai 1988	3 983-84	West Godavari district in Andhra Pradesh	Inverse relationship between dependence on private lenders and the farm size.

**FACTORS INFLUENCING LOWER ACCESSIBILITY OF FORMAL CREDIT:**

Now the question that arise is why are the small farmers relying continuously on informal credit inspite of subsidised rates of interest for formal credit? There are two major arguments which explain the lower access of formal credit to the small farmers. One argument (Shivamaggi 1963, Singh 1979, Pande et.al. 1983, Bhende 1986, Sarap 1986) attributes

to the asset based lending policies and complex formalities and procedures at the supply side and lower resource endowments as well as lower education and social status at the demand side as the major reasons. On the other hand, the continued dependence of small farmers on informal credit was explained by some of the researchers<sup>13</sup> that the costs of formal credit (including transaction costs) and informal credit are very close and hence the small farmers are indifferent to seek formal credit. It has been argued that the higher transaction costs inflicted on the small farmers and rural poor by the formal agencies due to their complex formalities and procedures escalates the effective cost of formal credit on par with the cost of informal credit. It has also been contended that the informal agencies are not exploitative and provide valuable services to their customers by charging moderate rates of interest (Harris 1983). However, the comparison of interest rates/cost of credit from formal and informal agencies as revealed in various field studies, furnished in Table 2.4 does not confirm this. The studies reveal that informal credit was substantially costlier than formal credit.

Further, it has been argued that though the cost of formal credit is lower than that of informal credit, they prefer to the informal credit due to other compensatory and non-economic factors. Therefore it is necessary to examine the arguments and evidences regarding the interest rates of informal credit.

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13. Adams and Nehman (1979), Ladman (1984) also made these observations on the basis of other developing countries' experientia.

**Table 2.4**

**Comparison of Cost of Credit from Formal and Informal Agencies: A Review of Studies**

Sl.No.	Author	Reference year	Arsa of study	Cost of Credit (% p.a.)			
				Formal		Informal	
				Smallest size group	Largest size group	Smallest size group	Largest size group
1.	Kailas Sarap	1980-81 1986	Saibhalpur district in Orissa state	21.76	12.56	52.27	19.65
2.	Singh et.al.	1986-87 1990	Aligarh district in Uttar Pradesh state	15.31	13.76	26.88	31.23
<u>Studies in other developing countries</u>							
3.	Reddy	1969-90 1991	Two villages in Guntur district in Andhra Pradesh	Dev. vil. 17.35	12.30	18.96	17.87
				Back. vil. 15.35	11.41	48.34	30.05
4.	Nehnan	1971	Brazil	29.00	15.00	36 to 48%	
5.	Villanil	1972-73	Columbia	42.00		47.00	(all loans)

Note: 1. Only the interest rates of non-linked informal credit are taken in case of Sarap's study.

2. In Singh's study, formal credit agency refers to cooperatives, and informal credit agencies refers to money lenders only.

3. Source for Nehnan and Villanil Studies: Adans and Nehnan (1979).

**INFORMAL CREDIT AND INTEREST RATES:**

A major thrust of the research efforts in the informal credit markets has been directed at identifying the factors underlying for higher interest rates. Bottomley (1975) had identified four important factors which influence the interest rate i.e., i) the opportunity costs of money involved ii) premium for administering the loan iii) premium for risk of default iv) monopoly profit. Bottomley (1975) and Karam Singh (1983)<sup>14</sup> attributed the high interest

14. Regarding the methodologies adopted, while Bottomley argued based on a hypothetical case, Karam Singh studied 7 private lenders in his own village.

rates of informal lenders to the high risk premium and administrative costs. The above explanation i.e., popularly known as the "lenders risk hypothesis" asserts that money lenders in backward regions face a positive risk of default and once this is taken into account, the effective interest rate turns out to be no higher than formal credit (Table 2.5). However Basu (1984) questions the above argument saying that a typical borrower in rural areas can not get away without paying a money lender's loan due to the personalised nature of rural credit markets. In this instance, the empirical evidence quoted by Raj (1979) from AIRCS (1954) that the money lenders considered "only 10 per cent or less' of their loans to farmers as doubtful, reinforces the argument put forth by Basu.

**Table 2.5**  
**Informal Credit and Interest Rates**

Lander's risk hypothesis		Default hypothesis	
1.	It supports the interest rates of informal credit in underdeveloped rural areas	1.	It argues usurious extraction can forms the very basis of interest rates in inorganised money market
2.	Bottomley (1975) Karam Singh (1963), Iqbal (1988)	2.	Bhaduri (1977) Barooah (1980), Kurup (1976)
3.	Honey lenders in backward regions face a positive risk of default. Once this is taken into account, the effective interest turns out to be no higher than formal credit	3.	In the event of default, the value of collateral would exceed the value of defaulted risk due to underpricing of collateral. Hence the lender's risk is irrelevant in the above circumstances. The lender even encourage default and seize the assets pledged.
4.	It is questioned based on the evidences of negligible default rate of informal loans in rural areas	4.	It becomes irrelevant if the lender is not provided with marketable asset as Collateral. The evidences of high proportion of informal loans with no tangible asset as collateral take this hypothesis questionable.

Bottomley (1971), however, emphasised that money lender's operations are not risk free and argued that monopoly profits' are meagre. If at all there are any monopoly profits existing, they are largely due to money lenders "insider's knowledge." Thus he believes that while the insider's knowledge remains as a 'barrier to entry', the risk of default continues to be an important consideration in money lender's calculations.<sup>15</sup> Desai<sup>16</sup> (1976) supported the high cost of informal credit by showing that 'incremental benefits' from informal agencies are higher than the low cost credit from formal agencies due to the multifunctional role of the informal credit. Harris<sup>17</sup> (1983) argued that the practices of informal lenders are not exploitative. They provide valuable service to their clients, charging low interest rates (12% p.a.) due to high competition among them.

On the other hand, Bhaduri (1977), Basu (1934) assume that local borrowers and lenders acquire an intimate knowledge of one another's resources and character. As a consequence, rural credit markets tend to be highly fragmented with formidable barriers to entry. Bhaduri (1977) examined the formation of usurious interest rates in backward

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15. It is only opinion based on hypothetical cases.

16. The idea of 'net incremental benefit' by Desai was also hypothetical one not backed by empirical data.

17. Harris studied 200 traders in agricultural commodities, agricultural inputs who were operating in cut throat competition to get the commodity for sale from the farmer borrowers. Their main interest was commodity business and not money lending. She also done random surveys of twenty village cooperatives and of 200 producers of paddy, in 12 villages of North Arcot district of Tamilnadu state during 1973-74. However, it is not clear whether she has taken into account the 'hidden' or 'implicit' costs in the input supply or output marketing in terms of prices paid.

agriculture against the background of the peculiarities of agrarian credit market, such as its isolation, its highly personalised nature, the exceptional monopoly power of the lender, the kinds of collaterals accepted by the private lenders, the lender's ability to value collaterals arbitrarily as well as to discriminate interest rates,. It is possible that some asset of borrower is treated as security or collateral. If the borrower defaults, an "equivalent amount" of this asset is relinquished to the lender. In order to decide on what is an equivalent amount, the two agents here, in advance, agree on a certain price for the asset. This price is called the "collateral price." Bhaduri advocates that in the event of default, the value of collateral would exceed the value of defaulted risk due to underpricing of collateral. With lender's risk reduced to an irrelevant concept, he says the usurious extraction can form the very basis of interest rates in unorganised money markets. The lender may even encourage the default and *seize* the assets pledged. Further there is possibility that lenders may give credit in order to claim ownership on the asset kept as collateral. This process popularly known as "default hypothesis." The underpricing of collaterals has been noted by Kurup<sup>18</sup> (1976), Bardhan and Rudra<sup>19</sup> (1978). Khannobis and Chakravorty<sup>20</sup> (1982) also empirically asserted

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18. Kurup TVN (1976) conducted a Pilot Survey in Trivandrum district with a sample size of 456 households.

19. Bardhan and Rudra (1978) intensively studied in 275 randomly chosen villages in West Bengal, Bihar and Eastern UP during 1975-76.

20. Khasnobis and Chakravarthy (1982) analysed the data collected from 87 tenants and 47 landlord households spread over 46 villages during 1979-80 in the Nadia district of West Bengal.

Bhaduri's proposition by showing that the high interest rates (6 to 10 per cent per month) were due to the monopoly power enjoyed by private lenders.

Under default hypothesis, Bhaduri (1977) and Barooach (1980) considered only the cases where default invariably took place and lender is provided with a tangible asset as collateral. But if the lender is not provided with a marketable asset as collateral or if the entire loan is repaid in cash, the default hypothesis has no significance (Table 2.5). However, one of the puzzles about the informal credit market relates to the large and significant quantity of credit that is provided without any tangible asset as collateral. Swaminathan (1991)<sup>21</sup> observed nearly 80 per cent of informal credit disbursed without a tangible collateral in one of her study villages. Centre for Economic and Social Studies (1994)<sup>22</sup> also observed the same percentage in their study area. Now the question arises is how it is possible for the lender to recover the loans with high interest especially without collateral? If it is by isolation and segmentation, we have to examine the nature and type of segmentation in rural credit market.

### **SEGMENTATION OF RURAL CREDIT MARKET**

Segmentation can be thought of as the existence of several submarkets separated by boundaries across which the

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21. Madhura Swaminathan (1991) conducted a study during 1985 based on primary data of 331 households from two villages in Madhurai district of Tamilnadu.

22. Centre for Economic and Social Studies conducted a study on Rural Credit needs in East Godavari district, A.P. They surveyed 412 sample households in 30 villages spread over three agro-economic zones of the district.

flow of credit is impeded mostly at the demand side. The persistence of segmentation in rural credit is evidenced by the continued existence of large and active informal credit along with the enormous growth of formal credit agencies. Bhaduri (1977) outlined a modal in which collateral security formed the basis of segmentation between formal and informal credit markets. The evidences from the field study by Swaminathan (1991) suggests the segmentation between formal and informal credit markets derives from a) the type of collateral security offered<sup>23</sup> b) the purpose of the loan. Credit from the formal agencies was allocated primarily for use in productive activities, while credit for consumption was almost exclusively obtained from informal agencies.

Besides the above broad segmentation between formal and informal credit, the informal credit market itself gets segmented into several, sub-markets, due to its personalised nature of its transactions. The physical proximity between borrower and the lender may result in spatial limitation of informal credit market (Roth 1983). Panikar et al (1988)<sup>24</sup> in their study on informal credit markets in 6 villages of Kerala and Tamilnadu identified informal credit market segmented between particular group of lenders and borrowers based on the mutual interests of parties involved. They

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23. While formal agencies does not accept the movable goods other than gold, the households who offer collaterals like utensils, bell metal, and other collateral substitutes like labour service has to invariably approach informal agencies. Hence segmentation can derive from type of collateral.

24. Panikar (1988) coordinated a study jointly undertaken by National Institute of Public Finance and Policy, New Delhi and the Centre for Development Studies, Trivandrum, which has taken a sample of 478 households in 4 villages in Kerala and two villages in Tamil Nadu.

found that agricultural money lenders lent mostly to agricultural labourers and to small farmers, rubber and vegetable traders lent to farmers, while fish merchants lent to fish vendors and fishing boat owners. On the other hand professional money lenders i.e, partnership firms registered as money lenders, companies, trusts etc. lent more impersonally to a wider clientele covering almost all the occupation groups mostly against security of gold.

Binswanger et al. (1985) in their study of six villages in Semi Arid Tropics in South India observed segmentation of informal credit market based on type of loans. First, there were medium term loans extended to long standing clients without collateral with fixed repayment schedule. These loans were mostly' for wells and pumpsets. Secondly, there were small short term loans, mostly for consumption,- extended by friends and relatives. Third, there were seasonal tied loans to the expected crop output to farmers for crop inputs or for consumption. Lastly employers extended tied loans to regular labourers. The only way a landless labourer can obtain a substantial loan of this type is to enter into a long term labour contract.

On the other hand Basu (1984) felt that informal credit market can be segmented in two different ways (i) Hereditary connections i.e., caste, community links and a multitude of human relations (ii) Interlinkages. Based on the above discussion and empirical evidences in the field, the interlinkages can form the very basis of segmentation of informal credit market. Since the association of different lenders and borrowers, different purposes and types of loan

vs. type of lenders, type of collateral offered vs. type of lenders are playing important role in segmenting the informal credit market, the interlinkages which in a way form the basis of different forms of association reinforces further segmentation of informal credit market. Therefore, there is a need to understand what is this interlinkage and why to study interlinkages.

### **What is. interlinkage?**

Quite often in a village, two different parties enter into several transactions such as leasing, wage labour hiring, production and consumption credit, input supply, output marketing etc., and they form part of comprehensive contract encompassing several markets. The credit plays an important role and often forms central to these various transactions. This "bundling" of transactions involved in land, labour input and output markets is being referred as 'interlinking' or 'tying' of transactions or "interlocking" of markets.<sup>25</sup>

Many researchers explained or defined "interlinkage" in different ways, though the broad comprehension is the same as above. Bhardwaj (1974) first made a formal reference to the 'interlocking' of markets in her study on farm management as follows "what does complicate the analysis, however is the fact that markets become interlocked through price and nonprice links, given that market and social power is vested

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25. Here, in the institutional environment of poor agrarian economy, the term 'market' is interpreted rather loosely. When we talk of interlocking of markets, we do not necessarily refer to formal or organised or monetised markets.

in the dominant rural classes and that the dominant party often combines multiple functions thus enjoying a superior position simultaneously in a number of markets." Basu (1984) defined an interlinked deal as "one in which two or more independent exchanges are simultaneously agreed upon." Similarly Bell and Srinivasan (1989) formally defined interlinkage as "An interlinked transaction is one in which the two parties trade in at least two markets on the condition that the terms of all such trades are jointly determined."

### **Why to study interlinkages?**

The subject of interlinkage received a great deal of theoretical and empirical attention in recent years. It is to be understood what is the importance of this literature and why has it got so much attention in the research efforts? Bardhan and Rudra (1978) who took up a large scale empirical study of interlinkage of land, labour and credit relations in Eastern India felt that the study was important not merely for settling pedantic debates on the dominant mode of production, but also in shaping basic directions in agrarian policy and in designing the broad outlines of political programmes for the peasantry. Bardhan (1980) in his review of interlocking of factors markets and agrarian development emphasised that many of the key issues in agrarian development can not be analysed without an understanding of the nature of interlinkage of factor markets in the specific institutional context of a poor agrarian economy. Bardhan further pointed out the shortcomings of general equilibrium framework of economic theory or some of the planning models as they do not explore a) how interlinkages of markets

reinforces the impact of imperfections in each market b) how different transactions are sometimes personalised in an interlocking system of (unequal) exchange among the same participants in order to get around the problem of non-existence of a complete set of markets and c) how differential price mechanisms operate in different factor markets. He felt that without analysing these issues, it is difficult to understand the functioning of allocation and accumulation (and hence income and wealth distribution) processes in agriculture. Basu (1992) also felt that the reason why the literature on interlinkages is existing is that in recent years it seems to have stumbled upon some deep questions which lie at the boundaries of economics, politics and anthropology.

### **Empirical Evidences on Incidence of Interlinkages**

Traces of basic idea occurred in many works in economics and social anthropology (Bardhan 1980). Analysing rubber markets in Malaya, Wharton (1967) emphasised the existence of the "dealer-lender merchant" and how this triple role gave him powers which a mere dealer or lender did not possess. Long (1968) stressed the role of interlinking in his study of Thai and Indian credit markets and how the merchants who trade with farmers in Asia frequently combine the activities of retailer, money lender and buyer of output. That such combined activities can lead to very different market outcomes as has been argued by Bhardhwaj (1974).

In their pioneering and extensive empirical study, Bardhan and Rudra (1978) found mainly three types of linkages i.e., credit-tenancy contracts, tenancy-labour links, and

labour and credit contracts. Since their sample households constitute only tenants and (casual and permanent) labourers, their study highlighted credit links with land and labour markets only and does not indicate the credit links with input and output markets. On the other hand, Bliss and Stern (1982) in their study of Palanpur in U.P. observed very few interlinked transactions. Subsequently, extensive evidences of interlinkages have been brought but by various field studies made in different parts of the country by Nagaraj (1985) Kailas Sarap (1986), Bell and Srinivasan (1989), Rao and Subrahmanyam (1983), Platteu and Abraham (1987), Ravi Srivastava (1989), Reddy (1992), Ranga Reddy (1992)<sup>26</sup> (Table-2.6).

**Incidence of Interlinkages among different Regions and Size Groups**

Now the question that emerges is whether the interlinkage largely is the characteristic of less developed and less endowed sections of rural society only? While extensive evidences of interlinkages are mostly found in backward areas by Bardhan and Rudra (1978) and Reddy (1992); Bell and Srinivasan (1989) and Rao and Subrahmanyam (1983) observed higher extent of interlinked transactions in commercialised areas. Sarap (1986) also found higher extent of linkages in more irrigated areas. Ravi Srivastava's (1989) findings are inconclusive regarding the extent of linkages and level of development of the area. Therefore, the above evidences indicate that the interlinkages are not confined to only backward and less developed regions. The

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25. Methodology and major findings are given in Table 2.6.

**Table 2.6**  
**Empirical Evidences on Incidence of interlinkages**

Author	Reference year	Area of Study	Findings
1. Bardhan & Rudra	1975-76 1978	275 randomly chosen villages in West Bengal, Bihar and Eastern U.P. canvassed 7 questionnaires in each village i.e.; 2 casual labourers, 2 permanent far* servants and a village schedule.	a. 50% of tenants took loans from landlord. b. 52% of landless tenants have credit-labour links. c. majority of farm servants took consumption loans from employers. d. 1/3rd of casual labour took consumption loans from employers.
2. Bliss & Stern	1982	All farm households of Palanpur village in Uttar Pradesh	Only 2 out of 40 tenants indebted to their landlords.
3. Nagaraj	NA 1985	Study of marketing structures for paddy and areacanut in South Kanara district.	Found 'holi' loan system in which the loan is in the form of rice, repayable (within 3-4 months) in 1 and 2/3 times if in form of rice 3 times if in the form of paddy.
4. Kailas Sarap	1980-81 1986	250 farmers, 70 landless from 6 villages in Sambhalpur, Orissa.	a. Interlinkages essentially confined to landless and stall farmers. b. Incidence of interlinkages higher in irrigated area. c. Association between type of household type of linkage Small farmers * credit with input and output market. Landless labourers - credit with labour market.
5. Bell & Srinivasan	1980-81 1989	Purposively selected 34 villages in Andhra Pradesh, Bihar and Punjab. 40 households in each village.	a. Extent of interlinkages higher in Punjab. b. Extent of interlinkages higher in owners in Punjab and A.P. than that of labourers and vice-versa in Bihar. c. More tenancy linkage* in Bihar. d. More output linkages in Punjab and A.P.
6. Platteau & Abrahath	1980-81 1987	Two stall-scale marine fisher villages in South Kerala.	Observed a) labour tying loans in which debtors enter into tacit contract for future commitment of labour and agree to respond quickly to any call of the work on his creditor's vessel. b) sales tying arrangements in which debtor pledges his future fish catches to lender-merchant and confers on him the exclusive right to dispose them.
7. Rao & Subrahmanyam	1979-80 1983	Part of Bell & Srinivasan's Study. 14 villages in 5 districts in Andhra Pradesh	Observed output tied credit transactions to the extent of a. 35% of total output of groundnut in district. b. 65% of total output of sugarcane in Chittoor district.

(contd..)

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8. Ravi & Srivastava 1989	NA	Purposively selected 2 villages in Eastern U.P. and 1 village in Western V.P. Sample households drawn from 7 classes following Marxist Criteria,	Observed a) landless transactions and associated Interlinkages with credit-labour. b. Credit transactions and associated inter-linkages with land and produce. c. Interlinked credit; and tenancy links with fan servants. d. Debt Induced interlinking with product and labour.
9. Reddy 1992	1989-90	Purposively selected 2 villages in (Suntur district, Andhra Pradesh. 111 sample households from 4 farm-size groups except landless	a. Extent of interlinkages less in developed village and higher in backward village. b. Credit links with labour in developed village. c. Credit links with input-output in backward village.
10. Ranga Reddy 1992	1989-90	Purposively selected 4 villages in Guntur district, Andhra Pradesh. 80 sample households from 4 size categories.	Labour linkages and input-output linkages were to the extent of about 40% and 38% respectively out of total linked transactions in the study area.

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evidences are inconclusive regarding correlation between level of development and extent of interlinkages, though Bell and Srinivasan argued that interlinkages are a flexible market response for growing commercialisation. Further, the evidences clearly disproved the notion that interlinkages are essentially a phenomenon confined to only less endowed sections, as the interlinkages are observed in almost all the sections of farm households. However, a sort of segmentation is observed in informal credit markets as a result of interlinkages since the type of linkages are influencing the type of parties involved in them.

Having observed the evidences of extensive prevalence of interlinkages, it is necessary to examine the studies which try to answer the questions such as why these interlinkages prevail at all? Under what circumstances the farm households resort to linkages? What are the effects of these interlinkages to the concerned parties? Whether mutually beneficial or advantageous to only one of the two parties involved in it?

### **Causes for Interlinking**

Basu (1984) argued that a market characterised by "potential risk" has an innate tendency to seek another market, with which to get interlocked and hence 'potential risk' is one prominent cause of interlinkage. He argues that there is a risk of default, if a loan is given without proper screening of borrower, to which he called as "potential risk." The lender reduces the potential risk to zero by offering loan to those over whom he has control. He argues

that through risk cannot directly explain the exorbitant rural interest rates, it plays critical indirect role in interlinkage. However, he feels that the potential risk further fragments the market thereby encouraging the emergence of monopolistic moneylenders.

On the other hand, Bardhan (1980) argued that the employer's need for a dependable and readily available source of labour supply and labourer's need for job security provided the major motivation of interlinking of credit labour linkage. He explains that agricultural production is a long, discontinuous operation with periodic bouts of hectic activities and intervals of relative idleness. Weather dependence not merely makes the timing of each individual operation somewhat unpredictable and when the time comes, the job has to be done very quickly and there are various risks and costs of delay. Since the employer puts a high premium on quick and ready availability of labour, he is usually prepared to provide the tied workers with wage advances and other kinds of consumption credit. On the other hand a poor labourer may be looking for a credit transaction and has no 'collateral' to offer except the commitment to provide labour services. But this may not be acceptable to all the creditors. An interlinked credit and wage contract between the employer-creditor and the employee-borrower is thus a way of ensuring the "double coincidence" of wants without which non-monetised economies tend to be inefficient. Therefore, Bardhan argues that interlinked system may serve the function of reducing some of market costs (transaction costs) of work monitoring, contract enforcement and acting as a check against the possible dishonesty as shirking by an agent in

one transaction may prove too costly for him due to its spill over effects threatening other transactions.

The above explanation by Bardhan shows that the interlinkages may result in gains to both the employer creditors and labourer-borrowers. For the employer, interlinkages avoid transaction costs and uncertainty of getting workers at the peak season and provide an enforcement device. At the same time, for the labourer, under the interlinked arrangement, future labour service which is not a marketable security can act as a 'collateral' to get credit, and he can avoid costs and uncertainty of getting employment and credit. Besides the above gains to both the parties, Bardhan (1984) envisages some disadvantages also resulting from interlinkages if they act as barriers to entry for third parties due to the personalised nature of transactions and thus becomes a source of additional monopoly power for the dominant partner in both (all) the markets in which he is operating. Labour-cum-credit contract, may be a way for landlord to segment the labour market and these linkages often divide the workers and effectively emansculate their effective bargaining strength.

The above two arguments by Basu and Bardhan reveal that both of them are of similar view, as both consider two different types of risk. Basu (1983) explains the emergence of interlinkage using "lender's risk hypothesis" (LRH), while Bardhan (1984) attempts to explain this using "Employer's risk hypothesis (ERH)." Under Basu's hypothesis lender bears the risk and hence he becomes lender-cum-employer in order to eliminate the risk of default. On the other hand under

Bardhan's view, employer farmer bears the risk and uncertainty of ready availability of labour in the peak season as well as uncertainty in wage rate. Hence he will become employer-lender in order to eliminate the risk and uncertainty.

However Gupta (1987) argues that 'potential risk' is not an important explanation of the emergence of interlinked labour-credit contracts. He attempted to explain interlinkage using "consumption efficiency hypothesis" of Leibenstein that states that the nutritional efficiency of the worker in a positive function of his level of consumption. He explains that the level of consumption of a worker in a particular period influences his nutritional efficiency more in the future than in the current period. So if employer offers an interlinked credit-labour contract, he not only earns interest from the consumption loan but also gets higher output in peak season. This is how interlinked labour credit contract is explained profitable to the employer even in a riskless world.

Another important strand of argument to explain the emergence of interlinkages is that of Bhaduri and Bhadwaj. The interlinkages have emerged to act as an exploitative device by the stronger sections to extract surplus out of the weaker sections (Bhaduri 1973, 1977). Further Bhadwaj (1974, 1975, 1985) points out that the interlocked relationships are used to increase the exploitative power of stronger sections. This is particularly correct if there is a limit on exploitation due to convention, tradition or economic factors in any one market. Conjoint exploitation then enables the dominant party to increase the surplus

appropriated and extend exploitation to cover different activities over time, or widen it to include other members of the weaker party's family. Interest free loans serve to increase the exploitation space over which other modes of appropriation can operate. Therefore the monopolistic landlord or the money lender who faces conventional or legally stipulated norms of maximum rental share or maximum permissible interest rates, may be able to extract additional rent or interest in the form of underpaid labour services from the tenant or the borrower. Interlinkages provides extra maneuverability to the dominant agents when social control on prices is not uniform in all markets.

The main criticism levelled against this view (exploitation view) relates to the monopoly power of the landlord. For if the landlord is the monopolist in both the land and credit markets, then he can simply lower the tenant's share in output in order to keep him perpetually indebted (Bardhan 1980, Srinivasan 1979) and the argument does not explain how the interlinkage increases the power of the landlord. Hence Stiglitz (1988) says that a landlord, if he is a monopolist, does not need any interlinkage, as he is already in a position to extract surplus to the maximum extent by having full control over his tenant. Therefore he infers that the existence of interlinkages denote that the landlord has only a partial control over the tenant and he is taking the help of interlinkages to extract surplus to the maximum extent. Hence he concludes that interlinkages would occur only in environments in which landlords have no monopoly power and hence interlinkages can increase economic efficiency. But it is a puzzle how the efficiency will be

attained when the landlord is tending to be a monopolist with the help of linkages?

Having come to the argument on efficiency, it is appropriate here to discuss another major strand of argument to explain the interlinkages i.e., the "efficiency view." It is argued that interlinked transaction is an efficient response to the particular phenomenon of incomplete set of markets with uncertainty and assymmetrical distribution of information and the consequent moral hazard problems (Braverman and Stiglitz 1982, Mitra 1983). Further Braverman and Guasch (1984) argued that interlinking can act as a screening device in the selection of right customers. They explained that in an environment characterised by a heterogenous labour/tenants pool and imperfect information, landlords will have an incentive to avail themselves of screening devices. While interlinking provides the landlord with a screening device to identify tenants, a regime without interlinking necessitates the landlord to choose tenants at random. Uith interlinking situation, landlord's profits are equal ex-anto and expost; in the no-linking situation, ex-ante and expost may differ, based on abilities of tenants selected. Honce under the interlinking regime, an efficient allocation may be possible, while a no-linking regime always leads to an inefficient allocation (Braverman and Guasch 1984). Further it is pointed out that interlinking is a flexible market response for growing commercialisation (Bell and Srinivaoan 1989).

Most of the above arguments related to the "efficiency view" are based on models usually written in the principal-

agent framework, where the labourer/tenant/borrower is implicitly assumed to be set at some reservation utility level whose determination is not clear. Commenting on principal-agent formulations, Anant and Mukherji (1992) argued that the two player format is perhaps being forced on to a more complex reality. The principal holding all the cards would tend to extract the entire surplus leaving the agent on his reservation utility level so that theorists have felt compelled, in search of a meaningful game, to give the agent, strategies like defaulting or choosing an unobservable effort level. Further, the interlinkages between several factor markets have been modelled under various assumptions regarding nature of markets, participating agents, their utility functions and maximising behaviour. Most of these assumptions are very difficult to apply at the field level. Some of these assumptions such as "voluntary bonded labour" by Srinivasan (1984) are quite drastic.

The foregoing discussion reveals there can be several reasons for interlinkages such as that interlinkages can act as a convenient device for the dominant party for exploitation (Bhaduri, Baradwaj), to avoid the lender's risk of default (Basu), can be used to reduce transaction costs and employer's risk and enhanced enforcement devise (Bardhan). Further interlinkages may be an efficient response to information assymetry and to avoid moral hazard problems (Braverman and Stiglitz), it can act as a screening devise (Braverman and Guasch) and finally interlinkages can be a market response for growing commercialisation (Bell and Srinivasan) (Table 2.7). What are the effects/consequences of these interlinkages? Whether they come in the way of

**Table 2.7**

**Two Major views on causes and consequences of interlinkages**

<b>Exploitation view</b>	<b>Efficiency view</b>
1 Bhaduri (1973), Bharadwaj (1974), Ravi Srivastava (1989)	1. Bardhan (1980), Braverman and Stiglitz (1982), Mitra (1983), Bravertan and Srinivasan (1981), Braverman and Giasch (1984), Bell and Srinivasan (1984).
2 Interlinkages acts as a convenient device for exploitation of weaker party by stronger party.	2. Questions exploitation view as it does not explain how interlinkages increase the power of landlord if he is already a monopsonist.
3 As there are conventional limits of exploitation in any one market. interlocking extends exploitation to many markets and over time.	3. Interlinkage is a market response to information asymmetry involving moral hazzard and uncertainty acts as i) screening device, ii) enhanced enforcement device, iii) reduces transaction costs, iv) respond to growing commercialisation.
4 Interlinkages leads to segmentation and underformation of markets. The muted underdevelopment of one market usually reinforces the underdevelopment of other markets and consequent slowing down of transition to capitalist.	4. Interlinkages lead to economic efficiency and there is association of interlinkages with development and commercialisation.
5 Interlinkages may hinder the yield increasing innovations.	5. Interlinkages increased the presence of output enhancing innovations in Indian agriculture.

technological progress and whether they lead to further underdevelopment? Therefore now, we turn to these questions.

### **Interlinkage and Technological Progress/Development**

The most important (rather startling) proposition put forth by Bhaduri (1973) provoked stormy exchanges among researchers and actually formed the basis for the present rich literature on interlinkages, both regarding empirical evidences as well as theoretical models. Bhaduri shows that a landlord who is also the sole source of credit to his tenant may have no incentive to adopt yield increasing innovations, if the landlord's interest income from his loans to the tenant goes down (because the tenant will borrow less as his share in the output increases) sufficiently to offset his share of increased output and hence the landlord prevent the tenant from adopting an innovation that raises output.

This proposition attracted severe criticism from Newbery (1975), Ghose and Saith (1976), Srinivasan (1979) and others, saying that this is rather a weak constraint on adoption of technical progress. They argued that if the landlord has sufficient power over his tenant borrower to withhold the innovation, then he ought to have sufficient power to extract extra gain from the innovation by suitably manipulating the rental share, the interest rate and other terms and conditions of tenancy and credit contracts. A necessary condition of Bhaduri's result is that borrowing is an inferior good for the tenant, since the tenant reduces his borrowing when his income increases as a result of innovation. But Srinivasan (1979) showed by his model that the borrowing can not be an inferior "good for the tenant. He

argued that tenants' borrowing will actually increase with his increased yield. Thus the landlord's incentive to innovation is not blunted.

Bardhan and Rudra (1978) empirically examined Bhaduri's proposition in Eastern India and found that even though landlord is an important source of credit to his tenant, the inhibitions of landlord for yield increasing innovations are almost absent, quite contrary to Bhaduri's hypothesis. Bell and Srinivasan (1989) argued on the strength of their study in Punjab, A.P. and Bihar, that interlinking has increased the presence of output enhancing innovations through credit output linkages in commercial agriculture. Moreover the analysis of field data of Rao and Subrahmanyam (1983) in Andhra Pradesh suggested that interlocking transactions of credit and output induced the cultivators to adopt a better technology, though other factors may also be influencing farm productivity. Therefore, we may note that while linkages in commercial agriculture may enhance production, but in backward agriculture they may be exploitative. Though Bhaduri's proposition was effectively criticised both by conceptually and empirically, Bell (1988) felt that the possibility of blocking the changes in technology which improve efficiency/productivity are already existing.

In another variant of above debate, Bharadwaj (1985) pointed out that interlocking leads to segmentation and underformation of markets, chiefly land and labour. Further, the muted underdevelopment of one market mutually reinforces the underdevelopment of other markets and consequent slowing down of transition to capitalism. Bharadwaj adduced support from a number of field studies by Bharadwaj (1979, 1985),

Bhaduri (1984), Bharadwaj and Das (1975) and Ravi Srivastava (1989). Bharadwaj (1985) further argued that the persistence of certain forms as surplus appropriation through interlinkages may lead to more adverse forms of interlocked relationships, if there are no alternative subsistence strategies for the poor. If the alternatives are available, Ravi Srivastava (1989) argued based on his empirical evidence that the poor preferentially withdraw from the interlocked relations of personalised dominance and unequal arrangements.

On the other hand, Bardhan and Rudra (1978) empirically showed that even in Eastern India, certain interlocked relationships are positively associated with development. Further, Bell and Srinivasan (1989) found that volume of credit involved in input-output linkages is more significant than credit amount involved in credit-labour and credit tenancy relations and are found to be more common in commercialised areas. Hence they concluded that interlinking is a flexible market response to growing commercialisation and is not a remnant of semi-feudal mode of production.

### **Effects/Consequences of Interlinkages**

Now the question that arises is what are the specific effects of these interlinkages i.e., positive affects or negative effects on the concerned parties involved in linkages? Whether they depend specifically on the

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27. Ravi Srivastava argues that the interlinkages may restrict mobility for the weaker classes, but given that the labourers are provided a limited number of alternatives the restrictions on the functioning of labour market were relative in nature, as evidenced in his study area.

development of the region in which the transactions have taken place? Whether the effects depend on type of linkages, (i.e., credit labour, credit-tenant, credit-output links) or nature of linkages (voluntary or involuntary relations) or type of parties involved and their relative bargaining power or relative urgency of the transaction to the parties, or type of lenders involved or type of purpose for which the transaction is being entered etc.

Most of the theoretical models discussed the effects on the welfare of concerned parties based on expected utilities. However, applied work is based on an assessment of the effect in terms of output and income since they are measurable. Often it is hard to decide about the effects of interlinking on expected output and income in a system of bilateral bargains, especially, since it is quite possible for one party to be worse off (in utility terms) (Bell, 1988).

Therefore, most of the empirical studies tried to explain the effect of inter linkages in terms of difference in wage rates and working hours, difference in rents paid, input prices and output prices and some of them imputed these differences in the interest rates of these interlinked credit transactions and estimated the effective interest rates. 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 Chakravarty (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.

Further, the extensive evidences of interlinked exploitation by informal agencies are mainly concentrated in backward agriculture (Bardhan and Rudra 1978), It was found that with increased development and consequent more formal credit flow, the exploitation due to linkages was also low and result in lower effective interest rates charged by informal agencies in developed regions than that of underdeveloped regions. (Sheila Bhalla 1976). However, Sarap (1986) found that the effective interest rates paid on linked credit transactions do not vary much between irrigated (where formal credit institutions are stronger) and unirrigated (where formal institutions were weaker) zones in Sambalpur district of Orissa. This difference in their findings may be due to the regional disparities. while Bhalla confined her analysis to developed state (Haryana), Sarap's analysis was confined to the backward district (Orissa).

The findings from various field studies by Bardhan and Rudra (1978), Kurup (1976), Nagaraj (1985), Kailas Sarap (1986), Platteau and Abraham (1987), Ravi Srivastava (1989), and Panikar (1988) reveal that there are extensive wage differences and price differentials in the interlinked transactions leading to exploitation of weaker parties though some of them also found interest free loans (Table 2.8).

On the other hand, Bell and Srinivasan (1989) though observed extensive links of credit output in commercialised areas and interlinkages between credit and labour/tenancy in backward areas, they felt that the evidences hardly support that usury is the dominant form of exploitation. But the data regarding wage differences, output price differences are not given by them. However, in the related study in A.P. of

**Table 2.8**  
**Evidences on the effects of interlinkages**

Author	Findings
1. Bardhan and Rudra 1978	a) 68% of the cases in West Bengal and 33% in Bihar, casual labourers worked at lower than market wage rates to their employer creditors, b) Observed interest free loans.
2. Kurup 1976	Conducted a pilot survey in Trivendrum district with a sample size of 456 households and found concealed interest rates ranging between 60-65% of cases of credit-output linkages.
3. Nagaraj 1985	Found that 'holi' (rice) loan system deepens as well as extend the base of surplus extraction.
4. Kailas Sarap 1986	a) Mean rates of effective interest higher for linked transactions, b) 25% of effective interest hidden in under-pricing of labour and output.
5. Platteu and Abraham 1987	a) Observed cheap loans (zero interest or lower interest) in interlinked transactions, b) Credit labour and credit-output links acting as risk reduction mechanism to lender-employer and lender-merchant respectively, c) Under credit-output links, merchants indulge in various price cutting and other fraudulent practices to derive supernormal profits.
6. Ravi Srivastava 1989	a) 302 to 802 of tenants got wage cuts from landlords, b) 232 to 202 of credit output transactions underpricing of output, c) Underpricing of labour in 752 of interlocked transactions.
7. Panikar 1988	Coordinated a study for Asian Development Bank in 4 villages in Kerala and 2 villages in Tamilnadu covering 478 households and observed interlinkages facilitated the extraction of concealed interest. Interest rates exceeded 602 p.a, in one-third of total loans.
8. Reddy 1992	a) Credit-labour transactions in developed village beneficial to both parties since there are no wage cuts interest free loans to agricultural labourers and assured supply of labour in peak season for employer-creditors, b) Credit linked with input-output in backward village exploitative due to hidden costs by overpricing of inputs supplied and underpricing of output purchased by trader-

Note 1, The coverage of the study of all the above authors is given already in Table 2.6, except for Kurup (1976) and Panikar (1988). The coverage of study of these two authors is given along with the findings.

Rao and Subrahmanyam (1983) (which forms part of the above study), the data reveals that the trader-cum-money lender, in the credit output linkages does manipulate the terms of transactions to his net gain and the farmer stands to lose in most of the cases. Further, Reddy (1992) found both the contrasting effects of interlinkages, i.e., beneficial as well as exploitative nature in two different villages.

However, Platteau and Abraham (1987) observed that the credit marketing arrangements not only serve the functions of risk reduction mechanism but also that of exploitative device, since it was possible for the merchants to indulge in various price cutting and other fraudulent marketing practices and derive supernormal profits. However they could not estimate the amount of 'disguised' interest which accrues to merchants through the fraudulent practices.

### **Effects of Credit-Labour Interlinkages**

Bardhan and Rudra (1978) found that casual labourers worked at lower than market wages to their employer creditors. The underpricing of labour services ;in credit-labour linkages was also observed by Sarap (1986), Platteau and Abraham (1987) and Ravi Srivastava (1989). On the other hand, no wage cuts were observed in credit-labour linkages by Reddy (1992). Besides the payment of market wages, he observed interest free loans also to the labourers by the large farmers to ensure assured supply of labour service during the peak seasons. Though the interest free loans has been observed by Bardhan and Rudra and Sarap also, to ensure steady supply of labour, the payment of interest takes the form of wage cuts.

### **Effect of Tenancy-Labour Linkages**

It is found by Bardhan and Rudra (1978) that underpaid and unpaid services by the tenant to their landlords is far from the general pattern. However Ravi Srivastava (1989) observed 30% to 80% of tenants got wage cuts by their landlords in his study area. Sarap (1986) also found the tenants paying much higher effective interest rates compared to owner-operators.

### **Effect of Input-Output Linkages with Credit**

Concealed interest in the form of underpricing of output was found by Kurup (1976), Sarap (1986), Platteau and Abraham (1987), Panikar (1988), Ravi Srivastava (1989) and Reddy (1992). However, Bell and Srinivasan did not reported any underpricing of output in credit marketing linkages.

Though it is difficult to generalise, the differing perceptions in the empirical studies discussed above may be due to differences in the bargaining power of the concerned parties. While most of the studies revealing extensive wage differences and price differentials in the interlinked transactions largely dealt with the interlinkages between two parties of unequal bargaining power in which the stronger party manages the benefits of an interlinked transaction to be in its favour. On the other hand, Bell and Srinivasan talks of the interlinked transactions between the two parties of more or less equal bargaining power, especially in case of link3 of credit-output in commercialised areas. Thus it may be the reason why the linkage effects observed by Bell and Srinivasan were mutually beneficial.

However, the foregoing discussion on the effects of various types of interlinkages on the concerned parties reveal that the interest on a good proportion informal credit transactions is "concealed" due to the interlinkagea and that the actual effective interest rates are quite high, though they vary baaed on the level of development of regions, type and nature of linkages and relative bargaining powers of the concerned parties etc.

### **SUM UP**

The informal credit which dominated the rural credit scene in India during pre-Independence era as well as in the early years after Independence, constituting 92.7 per cent of the total rural borrowings has been reduced to 43.8 per cent by 1981-82 in view of several steps taken by Government of India and RBI for rural credit institutional development, regulation of credit flow to the desired sections as well as for provision of formal credit at cheap interest rates. However, the overall position in respect of recovery of loans has been unsatisfactory in all types of credit agencies resulting in their non-viability. Another important problem encountered in the flow of formal credit to the rural areas is that the inequitable distribution of formal credit among different regions and across the different size classes of farmers. Empirical evidences suggest that the formal credit is largely biased in favour of large farmers and developed regions there by resulting in the continued dependence of rural poor on informal credit.

There are two major arguments which explain lower accessibility of formal credit to rural poor. One argument attributes it to the asset based lending policies and complex procedures and formalities of formal credit agencies at the supply side and lower resource endowments as well as lower education and caste status of the rural poor at the demand side. On the other hand, another argument contends that the cost of formal credit (including transaction costs) and informal credit are very close and hence the rural poor are indifferent to seek formal credit. However, the comparison of interest rates/cost of credit from formal and informal agencies as revealed in various field studies does not confirm this.

Meanwhile, the rationale underlying the interlinkages of credit with other markets and the extent of its prevalence have attracted a great deal research efforts in recent years. Quite often in a village, two different parties enter into several transactions such as tenancy, short and long term labour contracts, input supply, output marketing, credit for production and consumption etc. In view of the above situation, a type of "interlinking" of these transactions may arise so as to satisfy the wants/requirements of both the parties involved. The credit plays an important role and often form central to these transactions encompassing land, labour, input and output markets. It is felt that many key issues in agrarian development can not be analysed without an understanding of nature of interlinkages (Bardhan 1980).

Now the questions that arise are what are these interlinkages?, whether there are interregional differences in the incidence and extent of linkages? Whether these

interlinkages are confined to a particular sections of rural society? and what are the implications of these interlinkages?

Under an interlinked transaction, two parties transact the business in more than one market simultaneously, so that the transactions in one market influence the terms of the transaction in another market. Though many researchers explained or defined "interlinkage" in different ways, the broad comprehension is same as the above.

Some of the evidences in literature suggest that the extent of interlinkages are higher in commercialised areas (Bell and Srinivasan, 1989) and irrigated regions (Sarap, 1991), while there are evidences to the contrary showing that the interlinkages are mainly concentrated in backward agriculture (Bardhan and Rudra, 1976). Regarding the incidence of interlinkages among the size groups, Sarap (1991) observed that interlinked credit transactions are essentially a phenomenon confined to landless labourers, marginal and small farmers. On the other hand, Bell and Srinivasan (1989) found higher extent of interlinked transactions among owner cultivators than that of other types of households in Punjab and Andhra Pradesh, while they observed more interlinked transactions in labour market in Bihar. Therefore, the evidences are inconclusive regarding the correlation between level of development and extent of interlinkages.

Further, it is to be examined under what circumstances, the farm households resort to interlinkages? What are the effects of these interlinkages to the concerned parties?

Whether mutually beneficial *or* advantageous to only one of the parties involved in it?

There are two important views on the above issues. One view, popularly known as "exploitation" view, argues that the interlinkages have been utilised as an exploitative device by the stronger sections to extract surplus out of the weaker sections (Bhaduri, 1977). Further, it is argued that since there are conventional limits to exploitation in any one market, interlinked relationship enhances the exploitative power of the stronger sections and extends exploitation to many markets (Bharadwaj, 1985). On the other hand, according to the "efficiency" view, the interlinked transaction is an efficient market response to information asymmetry and uncertainty (Braverman and Stiglitz, 1982, Mitra, 1983). It acts as a screening device in the selection of customers (Braverman and Guasch, 1984) and also utilised as enhanced enforcement device for execution of contracts and reduce transaction costs in the recruitment of wage labourers (Bardhan, 1980). Further it is pointed out that interlinking is a flexible market response to the growing commercialisation (Bell and Srinivasan, 1989). Therefore, a major part of literature in this area highlighted only the conceptual issues, while the empirical studies are a few and the important debate on the effects/consequences of these interlinkages at the field level is still inconclusive.