

Full Length Research Paper

Trends and composition of institutional credit to the agriculture sector during the post-reform period in India

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This paper aimed at analyzing the changes in the trends and composition of multi-agency networks (co-operatives, scheduled commercial banks and regional rural banks) in the issuance of credit to the agriculture sector during the post-reform period in India, by using the time series data from the year 1975 to 2005. The analysis revealed that the trends of direct (short and long-term) and indirect institutional credit to the agriculture sector has increased significantly during the post-reform period. As far as the composition is concerned, the share of scheduled commercial banks, as percentage of total direct institutional credit, has increased significantly, whereas the co-operatives share has decreased; although the regional rural banks' contribution has almost been constant. However, a trial was made by this study also to find out the distribution of indirect finance through scheduled commercial banks.

Key words: Agricultural finance, institutional credit, short and long term credit, post-reform period, India.

INTRODUCTION

Agriculture plays a crucial role in the development of the Indian economy. Although the share of agriculture in national income has decreased since the beginning of the planning era in the economy, still it has a substantial share in gross domestic product (GDP). The contribution of agriculture in GDP was 55.4% in 1950 to 1951 and now it has reduced to only 17.1% in 2007 to 2008. This sector provides livelihood to about 70% of the total population and it generates employment for 52% of the country's work force. However, It is the single largest private sector of occupation.

Finance has been recognized as the life blood of all economic activities. Like all other producers, agriculturists also need credit. According to an old proverb, "Credit supports the farmers as the hangman's rope supports the hanged". This statement is fully true in the context of Indian farmers. The fact is that farmers in countries like India cannot expect their credit needs to come from savings. It is so because their income from farm operations is sufficient only to provide minimum necessities

of life (Lekhi and Singh, 2003). Acharya (2006) argued that the rural credit system assumes importance because most Indian rural families have inadequate savings to finance farming and other economic activities. The need for agricultural credit arises because modern farm technology is costly and the personal resources of the farmers are inadequate. A farmer's inability or least limited ability to save does not allow him to finance his pursuits and raise better production from his farms.

Sahu and Rajasekhar (2005) revealed that agriculture is a risky activity where farmers face shocks to their income; even though it appears that banks in India have been practicing a tight credit rationing process, while selecting their borrowers. There has been trend towards convergence in performance between public sector banks and private banks (Ram Mohan, 2007).

Goliati (2007) pointed out that the demand for agricultural credit arises due to: (1) lack of simultaneity between the realization of income and the act of expenditure; (2) lumpiness of investment in fixed capital formation; (3) stochastic surges in capital needs and savings that accompany technological innovations.

Recognizing the importance of the agriculture sector in India's development, the government and reserve bank of India (RBI) have played a vital role in creating a

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broad-based institutional framework to cater for the increasing credit requirements of the sector. Agricultural credit, through institutional channels, is the only way to break agricultural stagnation. The genesis of institutional involvement in the sphere of agricultural credit could be traced back to the enactment of the Co-operative Societies Act in 1904. The establishment of the RBI in 1935 reinforced the process of institutional development for agricultural credit. "The RBI is perhaps the first central bank in the world to have taken interest in the matters related to agriculture and agricultural credit and it continues to do so" (Reddy, 2001). The policy of agricultural credit is guided mainly by the considerations of ensuring adequate and timely availability of credit at reasonable rates through the expansion of institutional framework, its outreach and scale, by way of direct lending.

Samal (2002) argued that credit plays an important role to increase agricultural output and productivity. It may be of a short, medium and long duration depending on the purpose of the end-use. Short-term credit provides working capital supply to the farmers, increasing their efficiency for input use, while the medium/long-term credit contributes towards private fixed capital formation in agriculture. Credit is available to the farmers in the form of short-term credit for financing crop production programmes and in the form of medium/long-term credit for financing capital investment in agriculture and allied activities like land development, including purchase of land, minor irrigation, farm mechanization, dairy development, poultry, animal husbandry, fisheries, plantation and horticulture. Loans are also available for storage, processing and marketing of agricultural products. Broadly, the sources of agricultural credit can be divided into two categories: (1) institutional credit agencies and (2) non-institutional credit agencies.

This paper analyses only the institutional credit agencies because of non-availability of data related to the non-institutional credit agencies which include money-lenders, landlords, traders, commission agents, relatives, big businessmen, etc. Institutional credit is disbursed through a multi-agency network consisting of scheduled commercial banks (SCBs), regional rural banks (RRBs) and cooperatives.

Institutional credit is disbursed in two ways: direct and indirect. Direct credit is provided for short and medium term, and it includes SCBs, RRBs, co-operatives and state governments, while indirect credit includes co-operatives, SCBs, RRBs and Rural Electrification Corporation Ltd (REC).

DATA SOURCE AND VARIABLES INCLUDED

The source of data is the handbook of statistics on the Indian economy (RBI 2007 to 2008). This study collected data from 1975 to 2005 in order to make a comparison between the post-reform (1991 to 1992) and pre-reform (1975 to 1990) periods. Data were collected in 1990

to 1991 from July to June and, thereafter, from April to March,. In the case of SCBs, data were collected from July to June in all the study periods. For long-term credit, the data obtained since 1999 to 2000 are strictly not comparable with those of earlier years as they cover not only primary agricultural credit societies (PACS), but also state co-operative agricultural and rural development banks (SCARDBs) and primary co-operative agricultural and rural development banks (PCARDBs), while the earlier period covers PACS only. In an indirect credit, data for loans from co-operatives since 1993 to 1994 are not strictly comparable with those of the earlier period as many defaulters became non-defaulters with the implementation of agricultural and rural debt relief (ARDR) scheme, resulting in an increase in the assistance from banks. However, introduction/stabilization of lead bank returns (LBR), increase in the number and awareness of banks and consequent improvement in the data maintenance and reporting system at the field level resulted in an increase in the amount of loans reported in subsequent years.

The variables included in this study are SCBs, RRBs, co-operatives, state governments, REC, SCARDBs, PCARDBs, PACS, farmers' service societies (FSS) and large-sized adivasi multipurpose societies (LAMPS).

The purpose of this study is to analyse the trends and composition of institutional credit to the agriculture sector in an effort to understand the changes that took place in the post reform period by taking the time series data from 1975 to 2005. This paper is divided into two sub-periods, namely: 1975 to 1990 (pre-reform period) and 1991 to 2005 (post-reform period).

TRENDS OF DIRECT AND INDIRECT INSTITUTIONAL CREDIT TO THE AGRICULTURE SECTOR

Figure 1 shows the trends of direct and indirect institutional credit to the agriculture sector during the post-reform period by collecting data from the periods of 1975 to 2005. The trends of total direct (short-term) credit to the agriculture sector was significantly increased during the post-reform period, especially after years 2002 and 2003 when compared with its pre-reform period. The trends of total direct (long-term) credit to the agriculture sector has increased moderately during the post-reform period (but after years 1999 and 2000, it increased tremendously) when compared with its pre-reform period. More so, the trends of total (short and long-term) credit to the agriculture sector shows that there has been massive expansion during the post-reform period, especially after years 1990 and 1991 when it increased moderately during the pre-reform period.

Fundamentally, the trends of indirect credit increased significantly during the post-reform period, especially after years 1993 and 1994 (it changed drastically after years 1998 and 1999) when compared with the pre reform period (Appendix 1).

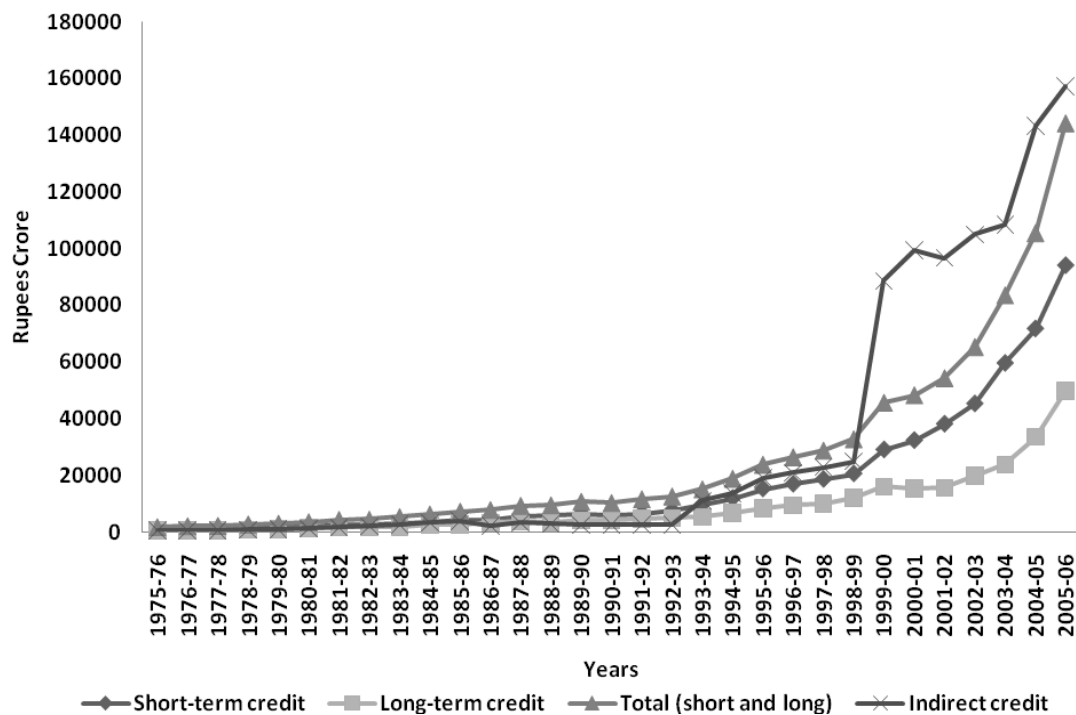


Figure 1. Trends of institutional credit to the agriculture sector. Source: Handbook of Statistics of Indian Economy (2007 to 2008).

Composition of institutional credit to the agriculture sector for a short-period

Figure 2 shows the composition of direct institutional credit flow to the agriculture sector for a short period during the post-reform period by taking the time series data from 1975 to 2005. The share of co-operative credit societies, as the percentage of total direct institutional credit to the agriculture sector for a short period, was 74.85% from 1975 to 1976, but decreased to 46.29% in 1980 to 1981. In 1991 to 1992, it was 40.61%, but it decreased to 25.03% in 2005 to 2006. This implies that there is a declining share of co-operatives in the total direct short-term lending to the agriculture sector.

The share of SCBs was 18.1% in 1975 to 1976, but it increased to 25.26% in 1980 to 1981. In 1991 to 1992, it was 35.41%, but it increased to 48.51% in 2005 to 2006. This shows that the SCBs' share increased continuously during the post-reform period.

The share of RRBs was 4 to 5% during the pre-reform period, but it increased to approximately 5 to 6% during the post-reform period, which means the share of RRBs increased during the post reform period (Appendix.2).

Composition of institutional credit to the agriculture sector for a long-period

Figure 3 shows the composition of direct institutional

credit to the agriculture sector for a long-term during the post-reform period from 1975 to 2005. The share of co-operative credit societies as the percentage of total direct institutional credit flow to the agriculture sector for a long-period was 61.24% in 1975 to 1976, but it decreased to 46.29% in 1980 to 1981. In 1991 to 1992, it was 40.61%, but it decreased to 25.03% in 2005 to 2006. The figure shows that the share declined during the whole period (in fluctuation condition). However, the share of SCBs was 38.55% in 1975 to 1976, but increased to 53.71% in 1980 to 1981; whereas in 1991 to 1992, it was 53.73%, but it increased to 70% in 2005 to 2006. This shows that the share of SCBs continuously increased during the period of 1975 to 2005, except for some years (1999 to 2001). Although the share of RRBs was 5.67% in 1991 to 1992, it decreased to 4.97% in 2005 to 2006, but during the pre-reform period, it was about 5 to 6%. This shows that the share of RRBs declined during the post-reform period (Appendix 2).

Composition of institutional credit to the agriculture sector in totality (Short and long-term)

Figure 4 shows the behavior of the total (short and long-term) direct institutional credit flow to the agriculture sector during the post-reform period by taking data from 1975 to 2005. The share of co-operative credit societies, as the percentage of total (short and long-term) direct

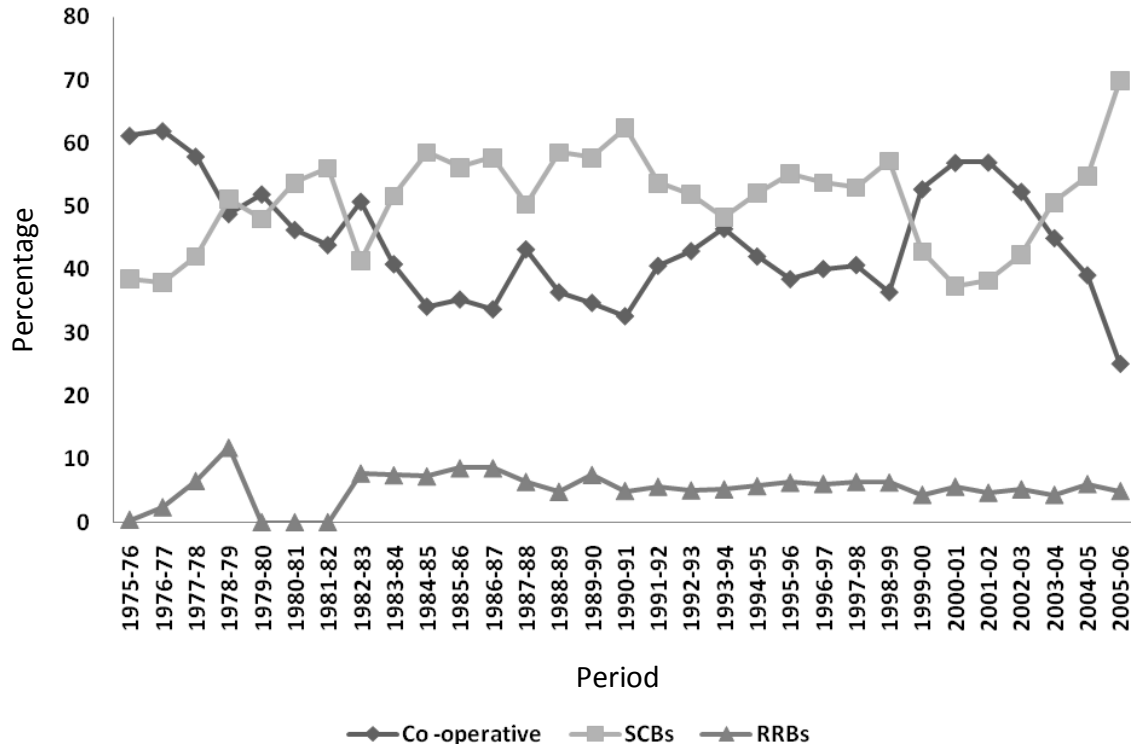


Figure 2. Direct institutional credit for the agriculture sector (short-term). Source: Handbook of Statistics of Indian Economy (2007 to 2008).

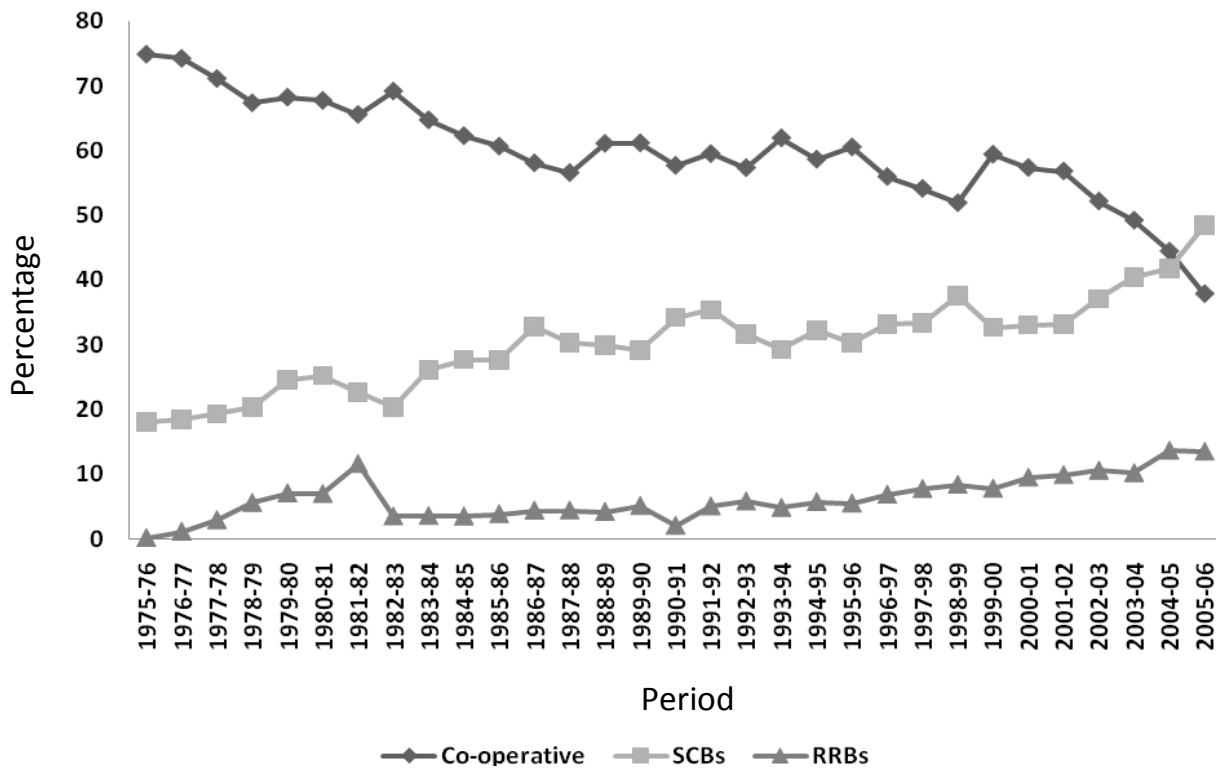


Figure 3. Direct institutional credit for the agriculture sector (long-term). Source: Handbook of Statistics of Indian Economy (2007 to 2008).

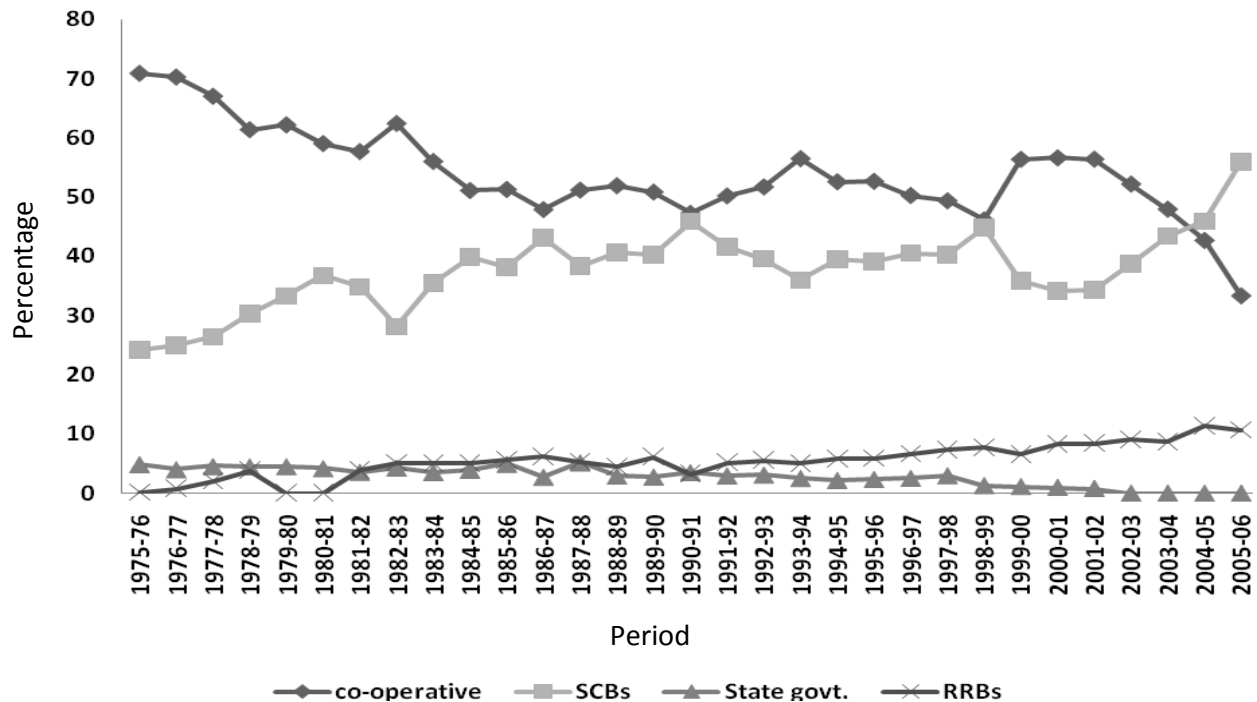


Figure 4. Direct institutional credit for the agriculture sector in totality (short and long-term).
Source: Handbook of Statistics of Indian Economy (2007 to 2008).

institutional credit to the agriculture sector, was 70.87% in 1975 to 1976, but decreased to 59.05% in 1980 to 1981; whereas in 1991 to 1992, it was 50.24%, but it decreased to 33.41% in 2005 to 2006. This shows that the share continuously declined during the post-reform period. The share of SCBs was 24.18% in 1975 to 1976, but increased to 36.76% in 1980 to 1981; whereas in 1991 to 1992, it was 41.65%, but increased to 55.96% in 2005 to 2006. This shows that the share of SCBs increased during the post-reform period. Fundamentally, the share of RRBs was 0.12% in 1975 to 1976, but later increased to 3.91%; whereas in 1991 to 1992, it was 5.17%, but increased to 10.62% in 2005 to 2006, which means that the share of RRBs had continuously increased during the post-reform period. However, the share of the state government to the total direct institutional credit to the agriculture sector was almost negligible during the post-reform period because of its declining trend (Appendix 2).

TRENDS AND COMPOSITION OF INDIRECT FINANCES THROUGH SCHEDULED COMMERCIAL BANKS

Figure 5 shows the trends and composition of indirect finances through scheduled commercial banks. In these indirect finances, the role of fertilizers and other inputs has a declining trend and its share was 31.8% in 1975 to 1976, but decreased to 24.12% in 1980 to 1981. How-

ever, in 1991, it was 16.82%, but decreased to 11.26% in 2005 to 2006.

The trends of the electricity board were fluctuating during the pre-reform period, but it had a declining trend during the post-reform period. It was observed that the share was 28.85% in 1975 to 1976, but decreased to 20.39% in 1980 to 1981; whereas in 1985 to 1986, it was 26.11%, which shows the increasing share as the percentage of total distribution of indirect finance through SCBs for the agricultural credit. Although, its share was 45.71% in 1991 to 1992, it decreased to 11.31% in 2005 to 2006, which shows that there is a decline in the share of the electricity board. Nonetheless, the trends of PACS/FSS/LAMPS increased during the pre-reform period, but declined during the post-reform period. The share was 9.84% in 1975 to 1976, but increased to 12.8% in 1980 to 1981; whereas in 1991 to 1992, it was 12.35%, but decreased to 3.46% in 1999 to 2000, after which it then decreased to 1.34% in 2005 to 2006. The role of 'other types of indirect finance' as the percentage of total distribution of indirect finance through SCBs for agriculture credit has an increased trend during the post-reform period, but fluctuated during the pre-reform period. As such, its share was 29.51% in 1975 to 1976, but increased to 42.36% in 1980 to 1981, and in 1985 to 1986, it decreased to 29.12%. During the post-reform period, its share was 25.12% in 1991 to 1992, but increased to 70.33% in 1999 to 2000, after which it then increased to 76.08% in 2005 to 2006 (Appendix 3).

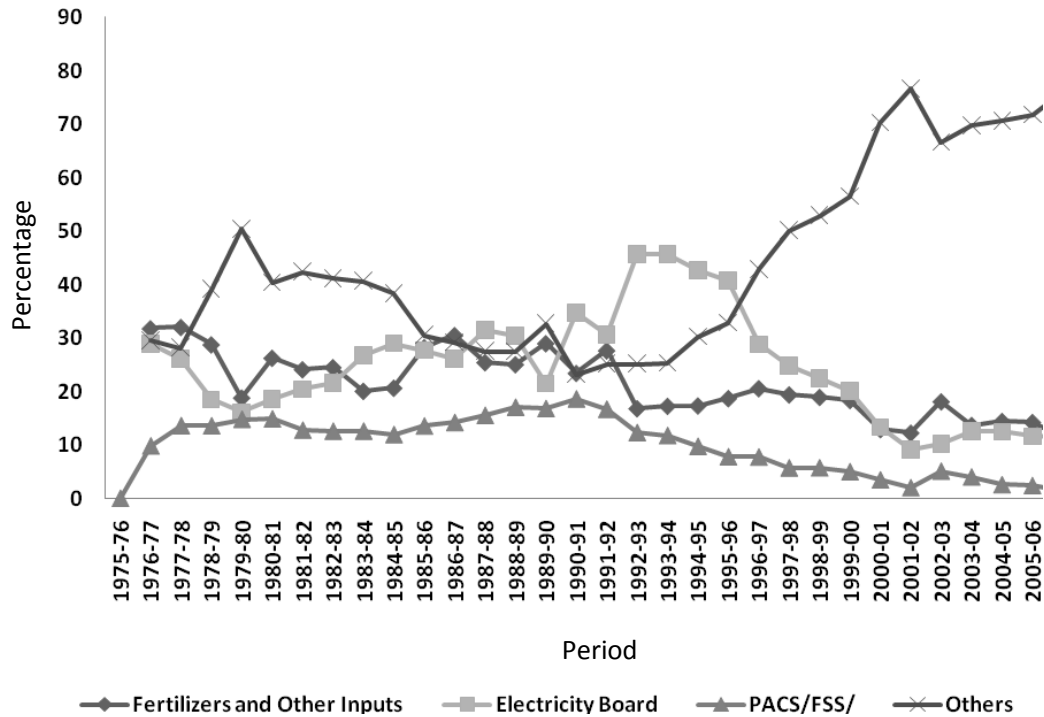


Figure 5. Distribution of indirect finance through scheduled commercial banks. Source: Handbook of Statistics of Indian Economy (2007 to 2008).

CONCLUSIONS

The trends and composition of direct and indirect institutional credit to the agriculture sector have been analysed in this paper. The analysis brings out that the trends of institutional credit to the agriculture sector during the post-reform period were high when compared with the pre-reform period, and the composition also changed significantly over this period.

The study concluded that the trends of direct short and long-term credit to the agriculture sector were increased during the post-reform period, but during the pre-reform period, it was observed that they increased slowly. Thus, the indirect credit to the agriculture sector was increased tremendously during the post-reform period, whereas the trend was insignificantly changed during the pre-reform period. However, the total (short and long-term) credit also showed that there was an increasing trend during the post-reform period when compared with the pre-reform period.

The share of co-operatives as the percentage of total (short and long-term) direct institutional credit to the agriculture sector has a declining trend during both the pre and post-reform periods. The main drawback of these co-operatives is the lack of adequate financial resources. The share of SCBs was increased as the year passed, because 6 more banks were nationalized in 1980 during the period of 1975 to 2005. Although the share of RRBs was increased moderately during the post-reform period

in the case of short-term credit, it decreased during the post-reform period in the case of long-term credit. The total (short and long) credit shows that the share of RRBs increased moderately during the post-reform period when compared with the pre-reform period. However, the state government credit is significant, but it is not a major source of agricultural finance. The reason for the unsatisfactory position is due to serious rigidities and delay in getting such loans; as such, its share fluctuated during the pre-reform period, but sharply declined during the post-reform period.

In this study, it was observed that the share of SCBs increased continuously, so a trial was made to find the share of direct and indirect finances through SCBs to the agriculture sector. From the findings, this study concluded that the share of direct finances had increased continuously during the pre-reform period, but had declined during the post-reform period. On the other side, the share of indirect finance was decreased during the pre-reform period, but was increased during the post-reform period (Appendix 3). Also, the distribution of indirect finance has been analysed in the paper, in which it was found that the share of fertilizers and other inputs, such as: loans to electricity boards and loans to farmers through PACS/FSS/LAMPS, were decreased during the post-reform period when compared with the pre-reform period. Nevertheless, the share of other types of indirect finance has increased tremendously during the post-reform period as compared to the pre-reform period.

REFERENCES

- Acharya SS (2006). Agricultural marketing and rural credit for strengthening India agriculture. INMR Policy Brief No. 3: Asian Development Bank.
- Goliat R (2007). Current issues in agriculture credit in India: an assessment. RBI Occasion Papers, 28(1): 79-99.
- Handbook of Statistics on the Indian Economy (2007-08). Reserve Bank of India (RBI). Current Issues in Agriculture.
- Lekhi RK, Singh J (2003). Agricultural Economics. Kalyani publishers: III/280-299.
- Ram Mohan TT (2007). Banking reforms in India: charting a unique course. Econ. Polit., 1109-1120.
- Reddy YD (2001). Indian Agriculture and Reform: Concern, Issues and Agenda. RBI Bulletin.
- Report on Trend and Progress of Banking in India (2005-06). Reserve Bank of India (RBI) Occasional Papers, Mumbai. Vol. 28, No. 1.
- Sahu GB, Rajasekhar D (2005). Banking Sector Reform and Credit Flow to Indian Agriculture. Econ. Polit., pp. 5550-5559.
- Samal B (2002). Institutional credit flow to West Bengal agriculture: revisited. Ind. J. Agric. Econ., 57(3): 546-559.

APPENDIX

Appendix 1. Trends of direct and indirect institutional credit to agriculture sector.

Year	Direct			Indirect credit
	Short-term credit	Long-term credit	Total (short and long)	
1975-76	1177	498	1675	633
1976-77	1369	668	2037	705
1977-78	1488	668	2155	684
1978-79	1792	850	2641	996
1979-80	1847	1082	2928	1061
1980-81	2047	1389	3436	1337
1981-82	2740	1556	4296	1698
1982-83	2759	1593	4352	2216
1983-84	3335	1909	5244	2712
1984-85	3731	2436	6167	3328
1985-86	4529	2629	7159	4099
1986-87	4512	3208	7720	2304
1987-88	5516	3682	9198	3384
1988-89	5884	3497	9381	2951
1989-90	6499	4129	10628	2618
1990-91	5979	4209	10188	2645
1991-92	6611	4588	11538	2795
1992-93	7665	4864	12530	2709
1993-94	9752	5261	15013	11101
1994-95	11932	6841	18773	13887
1995-96	15273	8419	23692	19237
1996-97	16956	9389	26345	20986
1997-98	18632	10007	28656	22976
1998-99	20610	12087	32697	25026
1999-00	29045	15968	45534	88675
2000-01	32355	15346	48187	99413
2001-02	38141	15612	54195	96803
2002-03	45288	19887	65175	105019
2003-04	59593	23834	83427	108519
2004-05	71748	33555	105303	143301
2005-06	94084	49938	144021	157307

Source: Reserve Bank of India (RBI); National Bank for Agriculture and Rural Development (NABARD); Rural Electrification Corporation Ltd.

Appendix 2. Percentage share of various agencies in direct institutional credit to agriculture sector.

Year	Short-term			Long-term			Total (Short-term and Long-term)			
	co-operative	SCBs	RRBs	co-operative	SCBs	RRBs	co-operative	SCBs	State govt.	RRBs
1975-76	61.24	38.55	0.4	74.85	18.1	0.17	70.87	24.18	4.9	0.12
1976-77	61.98	38.02	2.4	74.21	18.55	1.17	70.25	24.94	4.03	0.79
1977-78	57.93	42.07	6.59	71.1	19.35	2.96	67.01	26.4	4.55	2.04
1978-79	48.82	51.18	11.9	67.35	20.37	5.64	61.38	30.29	4.51	3.82
1979-80	51.94	48.06	0	68.22	24.63	7.15	62.19	33.3	4.54	0
1980-81	46.29	53.71	0	67.71	25.26	7.03	59.05	36.76	4.19	0
1981-82	43.89	56.11	0	65.55	22.74	11.7	57.7	34.82	3.56	3.91
1982-83	50.78	41.43	7.78	69.16	20.48	3.55	62.43	28.15	4.32	5.1
1983-84	40.86	51.65	7.49	64.71	26.15	3.6	56.063	35.43	3.53	5.02

Appendix 2. Contd.

1984-85	34.11	58.54	7.31	62.26	27.74	3.54	51.14	39.91	3.91	5.03
1985-86	35.26	56.18	8.6	60.65	27.64	3.89	51.32	38.12	4.94	5.62
1986-87	33.7	57.7	8.6	58.07	32.85	4.45	47.94	43.16	2.72	6.18
1987-88	43.21	50.35	6.44	56.56	30.31	4.46	51.21	38.33	5.2	5.25
1988-89	36.4	58.56	4.86	61.08	30	4.25	51.95	40.65	2.93	4.48
1989-90	34.71	57.76	7.56	61.15	29.2	5.17	50.88	40.29	2.75	6.09
1990-91	32.6	62.44	4.99	57.67	34.25	2.09	47.3	45.9	3.52	3.29
1991-92	40.61	53.73	5.67	59.51	35.41	5.1	50.24	41.65	2.94	5.17
1992-93	42.95	51.97	5.08	57.33	31.73	5.88	51.75	39.58	3.1	5.57
1993-94	46.47	48.28	5.25	61.93	29.33	4.88	56.51	35.97	2.51	5.01
1994-95	42.08	52.13	5.77	58.63	32.2	5.77	52.61	39.46	2.17	5.77
1995-96	38.48	55.2	6.32	60.52	30.3	5.56	52.69	39.14	2.34	5.83
1996-97	40.1	53.79	6.12	55.96	33.17	6.92	50.31	40.52	2.54	6.64
1997-98	40.72	53	6.45	54.12	33.45	7.82	49.41	40.26	2.99	7.34
1998-99	36.41	57.26	6.33	51.91	37.56	8.49	46.18	44.85	1.28	7.69
1999-00	52.75	42.87	4.38	59.41	32.73	7.87	56.39	35.91	1.14	6.56
2000-01	56.95	37.38	5.68	57.35	33.08	9.57	56.64	34.12	1.01	8.23
2001-02	57	38.28	4.71	56.82	33.2	9.99	56.41	34.39	0.82	8.39
2002-03	52.35	42.39	5.25	52.17	37.15	10.7	52.23	38.75	0	9.02
2003-04	44.99	50.64	4.37	49.21	40.5	10.3	48	43.39	0	8.6
2004-05	39.11	54.8	6.09	44.44	41.78	13.8	42.74	45.93	0	11.33
2005-06	25.03	70	4.97	37.86	48.51	13.6	33.41	55.96	0	10.62

Source. Reserve Bank of India (RBI); National Bank for Agriculture and Rural Development (NABARD)

Appendix 3. Scheduled commercial banks advances to agriculture-outstanding.

Year	Direct and Indirect as % of total advances		Distribution of Indirect Finance (%)			
	Direct	Indirect	Fertilizers and Other Inputs	Electricity Board	PACS/FSS/LAMPS	Others
1975-76	71.12	28.88	31.8	28.85	9.84	29.51
1976-77	74.91	25.09	32.05	26.11	13.65	28.19
1977-78	73.85	26.15	28.79	18.46	13.63	39.12
1978-79	74.91	25.09	18.83	16.06	14.85	50.43
1979-80	78.06	21.94	26.28	18.49	14.92	40.31
1980-81	76.58	23.42	24.12	20.39	12.8	42.36
1981-82	76.8	23.2	24.53	21.6	12.63	41.16
1982-83	78.66	21.34	20.08	26.69	12.63	40.68
1983-84	80.5	19.5	20.66	28.94	11.98	38.36
1984-85	84.28	15.72	28.24	27.68	13.59	30.56
1985-86	86.54	13.46	30.53	26.11	14.25	29.12
1986-87	87.47	12.53	25.46	31.45	15.59	27.5
1987-88	88.86	11.14	25.08	30.35	17.11	27.4
1988-89	89.98	10.02	29.01	21.41	16.87	32.64
1989-90	91.56	8.44	23.44	34.64	18.68	23.16
1990-91	93.14	6.86	27.67	30.53	16.74	25.15
1991-92	92.39	7.61	16.82	45.71	12.35	25.12
1992-93	92.43	7.57	17.27	45.62	11.79	25.26
1993-94	90.27	9.73	17.34	42.69	9.77	30.25
1994-95	88.16	11.84	18.71	40.66	7.82	32.81
1995-96	86.63	13.37	20.58	28.8	7.76	42.87

Appendix 3. Contd.

1996-97	84.63	15.37	19.41	24.73	5.72	50.14
1997-98	82.29	17.71	18.94	22.37	5.73	52.96
1998-99	80.3	19.7	18.37	20.04	5.01	56.57
1999-00	73.77	26.23	12.92	13.29	3.46	70.33
2000-01	68.26	31.74	12.24	9.01	2	76.74
2001-02	71.86	28.14	18.11	10.09	5.09	66.71
2002-03	70.59	29.41	13.68	12.52	4.01	69079
2003-04	71.28	28.72	14.44	12.39	2.54	70.64
2004-05	72.6	27.4	14.23	11.57	2.39	71.81
2005-06	70.22	29.78	11.26	11.31	1.34	76.08

Source: Reserve Bank of India (RBI); National Bank for Agriculture and Rural Development (NABARD).