

An Analysis of Status and Trends of Investment Credit in Indian Agriculture

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KEYWORDS Investment Credit. Production Credit. Agriculture Capital Formation. Institutional Agricultural Credit. Interstate Disparities in Credit Flow. Economic Liberalization

ABSTRACT Reasonable level of investment in agriculture sector is essential for capital formation to generate growth. Gross Capital formation in agriculture declined from 10.2 per cent of GDP in 1999-2000 to 7.0 per cent of GDP in 2006-07. The declining investment credit in agriculture in recent years has been a major cause of concern despite Government of India's efforts of doubling of credit flow to agriculture during the period 2004-05 to 2006-07. This calls for devising a conscious, implementable strategy for increasing investment in the agriculture sector and also reducing interstate disparities therein. In the era of globalization, when agriculture is expected to satisfy not only the domestic demand but is also expected to leverage on its comparative advantages and contribute substantially to foreign exchange earnings by way of exports, capital formation in agriculture is crucial. Hence, the need for increasing investment credit in agriculture is being felt as never before.

I. INTRODUCTION

The growth in agricultural production depends upon a number of factors, of which improvement in crop production technology is one. The Green Revolution, known for the use of high yielding varieties of seed and fertilizers, led to a shift in the production technology which was largely facilitated by investment in irrigation and land development. The technology and investment have together given the much needed food security and improved the resilience of the agricultural economy to a considerable extent (Tewari 2007).

In the era of globalization, when agriculture is expected to satisfy not only the domestic demand but also expected to leverage on its comparative advantages and contribute substantially to foreign exchange earnings by way of exports, adequate capital formation is essential to support modernization of technology and manage-

ment practices. Hence, the need for increasing investment in agriculture is being felt as never before. The paper examines the changing share of term credit (investment credit) advanced to agriculture by different institutional credit agencies, that is, Cooperatives, Scheduled Commercial Banks (SCBs) and Regional Rural banks (RRBs) and disparities across states in term credit flow.

II. METHODOLOGY

The paper covers agricultural credit flow from cooperatives, scheduled commercial banks (SCBs) and regional rural banks (RRBs), which are the major planks of institutional agricultural credit system. The data were drawn from various issues of Reserve Bank of India publications namely Report on Currency and Finance, Reserve Bank of India Bulletin, Statistical Tables Relating to Banks in India, and Government of India publications namely Economic Survey, 2008-09, Fertilizer Statistics, and Agricultural Statistics at a Glance.

Agency-wise flow of total agricultural credit as well as agency wise proportion of short-term and term credits in the total agricultural credit was worked out for the post liberalisation period 1992-93 to 2005-06. Term credit flow was estimated on per hectare basis to examine dis-

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parities across states at two points of time, that is, 1985-86 (pre-liberalisation) and 1995-96 (post-liberalisation), the latest year for which data on term credit flow were available.

III. RESULTS AND DISCUSSION

a) Agency-wise Flow of Institutional Credit to Agriculture

Institutional funding of the farm sector is mainly by cooperatives, commercial banks, and regional rural banks. The agency-wise flow of institutional credit to agriculture is presented in Table 1. It can be seen from the table that cooperatives dominated the scene in agricultural credit flow till 1995-96 despite its share in credit supply declining from 61.8 per cent in 1992-93 to 47.6 per cent in 1995-96. Commercial bank credit over-took cooperatives in 1996-97 with its share in total agricultural credit consistently increasing from 48.4 per cent in 1996-97 to 69.5 per cent in 2005-06. Share of regional rural banks (RRBs) in total agricultural credit also increased consistently from 5.48 per cent in 1992-93 to 8.43 per cent in 2005-06. The total agricultural credit flow from all institutional agencies shot up to Rs. 180486 crores in the 2005-06 from Rs 15169 crores in 1992-93 after economic liberalisation policy launched in 1991-92.

b) Share of Investment Credit

The agency-wise share of short-term (ST) and medium and long term (MT/LT) credit flow to agriculture is presented in Table 2. Within co-operative credit the share of term loan declined from 23.54 per cent in 1992-93 to 11.36 per cent in 2005-06. Within commercial bank credit, the share of term loan also declined in most of the years barring a few marginal upward turns over the 14 years period of 1992-93 to 2005-06. Within regional rural bank credit also the share of term loan consistently declined from 41.16 per cent in 1992-93 and stood at 18.54 per cent in 2005-06.

The term 'capital' strictly implies building up of capital assets like pumpsets, tractors etc. Therefore, the role of term credit (investment credit) becomes significant for capital formation in agriculture sector for raising the agricultural production and productivity. Farmers also require crop loan for a short term (produc-

Table 1: Agency-wise flow of direct credit to agriculture (Rupees in crore)

Agency	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
Cooperatives	9378 (61.82)	10117 (61.34)	9406 (50.18)	10479 (47.56)	11944 (45.22)	13975 (43.88)	15870 (43.17)	18260 (39.47)	20718 (39.28)	23524 (37.96)	23716 (34.09)	26959 (31.00)	31424 (25.07)	39786 (22.04)
Scheduled Commercial Banks	4960 (32.70)	5400 (32.74)	8255 (44.04)	10172 (46.17)	12783 (48.40)	15831 (49.71)	18443 (50.14)	24733 (53.46)	27807 (52.72)	33587 (54.21)	39774 (57.18)	52441 (60.29)	81481 (65.03)	125477 (69.52)
Regional Rural Banks (RRBs)	831 (5.48)	977 (5.92)	1083 (5.78)	1381 (6.27)	1684 (6.38)	2040 (6.41)	2460 (6.69)	3172 (6.87)	4219 (8.00)	4854 (7.83)	6070 (8.73)	7581 (8.71)	12404 (9.90)	15223 (8.44)
Total	15169 (100)	16494 (100)	18744 (100)	22032 (100)	26411 (100)	31846 (100)	36773 (100)	46165 (100)	52744 (100)	61965 (100)	69560 (100)	86981 (100)	125309 (100)	180486 (100)

Table 2: Agency-wise flow of short-term and term credit to agriculture

Agency	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
<i>Cooperatives</i>														
Short term	7170	7839	7250	8331	9328	10877	12514	14771	16528	18787	19734	21438	23244	35266
(Production Credit)	(76.46)	(77.48)	(77.08)	(79.50)	(78.10)	(77.83)	(78.85)	(80.89)	(79.78)	(79.86)	(83.21)	(79.52)	(73.97)	(88.64)
Med/Long term	2208	2278	2156	2148	2616	3098	3356	3489	4190	4737	3982	5521	8180	4520
(Investment Credit)	(23.54)	(22.52)	(22.92)	(20.50)	(21.90)	(22.17)	(21.15)	(19.11)	(20.22)	(20.14)	(16.79)	(20.48)	(26.03)	(11.36)
Total	9378	10117	9406	10479	11944	13975	15870	18260	20718	23524	23716	26959	31424	39786
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
<i>Scheduled Commercial Banks</i>														
Short term	2432	2700	4087@	5345	6549	8349	9622	11697	13486	17904	21104	27988	42989	57640
(Production Credit)	(49.03)	(50.00)	(49.51)	(52.55)	(51.23)	(52.74)	(52.17)	(47.29)	(48.50)	(53.31)	(53.06)	(53.37)	(52.76)	(45.94)
Med/Long term	2528	2700	4168	4827	6234	7482	8821	13036	14321	15683	18670	24453	38492	67837
(Investment Credit)	(50.97)	(50.00)	(50.49)	(47.45)	(48.77)	(47.26)	(47.83)	(52.71)	(51.50)	(46.69)	(46.94)	(46.63)	(47.24)	(54.06)
Total	4960	5400	8255	10172	12783	15831	18443	24733	27807	33587	39774	52441	81481	125477
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
<i>Regional Rural Banks (RRBs)</i>														
Short term	489	732	688	849	1121	1396	1710	2423	3245	3777	4775	5835	9420	12401
(Production Credit)	(58.84)	(74.92)	(63.53)	(61.48)	(66.57)	(68.43)	(69.51)	(76.39)	(76.91)	(77.81)	(78.67)	(76.97)	(75.94)	(81.46)
Med/Long term	342	245	395	532	563	644	750	749	974	1077	1295	1746	2984	2822
(Investment Credit)	(41.16)	(25.08)	(36.47)	(38.52)	(33.43)	(31.57)	(30.49)	(23.61)	(23.09)	(22.19)	(21.33)	(23.03)	(24.06)	(18.54)
Total	831	977	1083	1381	1684	2040	2460	3172	4219	4854	6070	7581	12404	15223
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
ST Total	10091	11271	12025	14525	16998	20622	23846	28891	33259	40468	45613	55261	75653	105307
(Production Credit)	(66.52)	(68.33)	(64.15)	(65.93)	(64.36)	(64.76)	(64.85)	(62.58)	(63.06)	(65.31)	(65.57)	(63.53)	(63.37)	(58.35)
MT/LT Total	5078	5223	6719	7507	9413	11224	12927	17274	19485	21497	23947	31720	49656	75179
(Investment Credit)	(33.48)	(31.67)	(35.85)	(34.07)	(35.64)	(35.24)	(35.15)	(37.42)	(36.94)	(34.69)	(34.43)	(36.47)	(39.63)	(41.65)
Grand Total	15169	16494	18744	22032	26411	31846	36773	46165	52744	61965	69560	86981	125309	180486
(Prod. and Inv. Credit)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
Ratio of Investment	0.50	0.46	0.55	0.57	0.55	0.54	0.54	0.59	0.58	0.53	0.52	0.57	0.65	0.71
Credit to Production Credit														

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Source: Report of the task force on revival of short-term cooperative credit structure, Feb. 2005, GOI, Economic Survey 2008-09, GOI.

Note: Grand total also includes credit from other agencies.

tion credit) to buy seed, fertilizer, payments of wages to labour etc. Both production and investment credit are essential for sustaining high agricultural growth in the economy. Awasthi (2007) showed in his study that the optimal range within which investment credit must vary should be between two-third (0.66) to three-fourth (0.75) of the production credit. However, the results in Table 2 indicate that investment credit (term credit) has been at less than 60 per cent of production credit (short term) till 2003-04, with recovery in the proportion in 2004-05 and 2005-06 when renewed emphasis was given in enhancing agricultural credit flow. As a consequence, capital formation in agriculture has suffered and it is noted to be one of the reasons for slow rate of growth in agriculture and allied sector.

c) Interstate Disparities in Flow of Term Credit to Agriculture

In the post-liberalization period (1995-96), inter-state disparities in the flow of term credit

to agriculture from commercial banks declined in comparison to the inter-state disparities in the pre-liberalization period (1985-86) as is indicated by decline in coefficient of variation. Besides, there has been an impressive increase in per hectare flow of term credit over the decade (Table 3).

In 1985-86, out of the seventeen states only six states had the per hectare flow of term credit from scheduled commercial banks above the national average. (Rs. 243.62) These states were Haryana, Punjab, Gujarat, Karnataka, Kerala and Tamil Nadu. Jammu and Kashmir, Assam and Orissa had the term credit flow below Rs. 100 per hectare. The lowest per hectare term credit flow was in Assam (Rs. 0.94) and the highest was in Punjab (Rs. 616.63).

In 1995-96, the per hectare flow of term credit from Scheduled Commercial Banks was above Rs. 1000 in four states of Haryana, Punjab, Kerala and Tamil Nadu; between Rs 500 and Rs. 1000 in five states of Bihar, Uttar Pradesh, Gujarat, Andhra Pradesh and Karnataka; below Rs 500 and above Rs. 100 in seven states of

Table 3: State-wise per hectare flow of commercial bank term credit to agriculture

States	1985-86 (Pre-liberalization period)			1995-96 (Post-liberalization period)		
	Total term credit (Rs. Thousand)	Gross cropped area (Thousand ha.)	Credit per hectare (Rs. Thousand)	Total term credit (Rs. Thousand)	Gross cropped area (Thousand ha.)	Credit per hectare (Rs. Thousand)
<i>Northern Region</i>	2019820	6580	258.59	4835500	7088.6	647.80
Haryana	2329300	5601	415.87	6053700	5974	1013.34
Himachal Pradesh	127800	974	131.211	338100	972	347.84
J&K	94200	1030	91.45	174300	1073	162.44
Punjab	4413900	7158	616.63	10491900	7752	1353.44
Rajasthan	3133900	18137	172.79	7119500	19672	361.91
<i>North-Eastern Region</i>	3600	3794	0.949	70200	3938	17.83
Assam	3600	3794	0.949	70200	3938	17.82
<i>Eastern Region</i>	1580000	9254.33	172.35	4029167	9553	418.33
Bihar	2122200	10517	201.78	6642300	10019	662.97
Orissa	725600	9259	78.36	1855500	9668	191.92
West Bengal	1892200	7987	236.91	3589700	8972	400.10
<i>Central Region</i>	4670600	23998.5	192.74	12596200	25416.5	494.62
Madhya Pradesh	3382100	23016	146.94	10749000	25040	429.27
Uttar Pradesh	5959100	24981	238.54	14443400	25793	559.97
<i>Western Region</i>	3865650	15110	276.74	7950550	15704.5	519.79
Gujarat	3243500	9683	334.96	5621800	10082	557.60
Maharashtra	4487800	20537	218.52	10279300	21327	481.98
<i>Southern Region</i>	2377575	8232.75	314.17	6810675	8583.5	953.69
Andhra Pradesh	2643900	12100	218.50	6795200	13043	520.98
Karnataka	3365100	11146	301.91	8248100	11958	689.75
Kerala	1101600	2866	384.36	3946400	3066	1287.14
Tamil Nadu	2399700	6819	351.91	8253000	6267	1316.89
<i>All India</i>	41425500	175605	243.62	104671700	184616	609.14
<i>Coefficient of Variation (%)</i>		164.36		149.82		

Himachal Pradesh, Jammu and Kashmir, Rajasthan, Orissa, West Bengal, Madhya Pradesh and Maharashtra. It was below Rs. 100 in Assam. The lowest per hectare term credit flow was in Assam (Rs. 17.82) and the highest was in Punjab (Rs. 1353.44), similar to the position as noticed in 1985-86. Only six states namely Haryana, Punjab, Bihar, Karnataka, Kerala and Tamil Nadu experienced term credit flow above the All India average. This position is similar to that in 1985-86 except Gujarat getting replaced by Bihar (Shukla and Dubey 2008).

IV. CONCLUSION

The National Agriculture Policy adopted in July 2000 had envisaged an annual growth in agriculture of over 4 per cent per annum and highlighted adequate and timely supply of institutional credit to farmers. Total credit flow to agriculture and allied sectors during the Tenth Five Year Plan period was projected at Rs.7,36,570 crore, comprising Rs.3,59,701 crores (48.8 %) of short-term credit and Rs.3,76,869 crores (51.2 %) of term credit. The ground level institutional credit to agriculture doubled in 2006-07 over 2003-04 and reached the level of rupees 229400 crores. The credit

flow is expected to reach Rs. 264455 crores in 2009-10 against the target of Rs. 325,000 crores.

There is no doubt about the continued importance of short-term credit which accounts for little less than two third of the total institutional lending to agriculture. However, there is a dire need for raising investment credit to meet the growing needs of infrastructure such as transport, storage, processing, packaging, market development, quality testing etc. for strengthening supply chain and modernising agriculture. Otherwise, Indian agriculture may continue to face intermittent periods of crises and agricultural growth may continue to remain depressed.

REFERENCES

- Awasthi Arvind 2007. Production and investment credit of Scheduled Commercial Banks in India: A need for a systematic approach. *Indian Journal of Agricultural Economics*, 62(3): 314-320.
- Report of the Expert Group on Investment Credit 2005.* Mumbai: NABARD.
- Shukla AN, Dubey PP 2008. *Performance of Commercial Bank Credit to Agriculture in India: An Empirical Analysis*. PhD, Thesis. Submitted to C.S.J.M University Kanpur, U.P.
- Tewari SK 2007. Rapporteur's report on trends in rural finance. *Indian Journal of Agricultural Economics*, 62(3): 551-561.