RESEARCH ARTICLE

Bank Credit to Agriculture in India in the 2000s: Dissecting the Revival

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Abstract: The growth of agricultural credit in India, which slowed down in the 1990s, revived after 2000. This paper examines the changes in growth and distribution of agricultural credit from commercial banks during the phase of revival. The paper notes two major components of the revival: (i) an increase in the number of bank branches in rural areas, and (ii) accelerated growth of the volume of agricultural credit. In both cases, growth was characterised also by greater inequality in the distribution of benefits. The distribution of bank branches and agricultural credit had six major features. First, even though the number of bank branches in rural areas rose after 2005, this growth did not keep pace with the growth of rural population. The reduction of total population per branch was faster than the reduction of rural population per branch, suggesting a greater penetration of branches in urban areas than in rural. Secondly, after 2000, indirect agricultural credit constituted a bigger share than previously to the growth of overall agricultural credit. Thirdly, there was a sharp increase in the share of large-size loans in agricultural credit. Fourthly, there was a substantial increase in the share of agricultural credit outstanding from urban and metropolitan branches of banks in the 2000s. Agricultural credit was increasingly diverted away from rural areas, particularly from the marginal and small farmers, and towards large business interests based in urban areas. Fifthly, there was a concentration of disbursal of agricultural credit from January to March, which are generally not the normal periods of borrowing by farmers. Sixthly, there was a sharp fall in the share of long-term credit in total agricultural credit after 1991. Consequently, the portion of agricultural credit that was used for fixed capital formation in agriculture became smaller.

Keywords: Rural credit, agricultural credit, fixed capital formation, financial liberalisation, financial inclusion, banking in India.

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Introduction

Trends in the flow of agricultural credit from commercial banks in India after 1991 can be divided into two distinct phases: a phase of low growth in the 1990s and a phase of revival in the 2000s. This paper deals with the phase of revival of agricultural credit in the 2000s. We conducted a preliminary analysis of this revival in an earlier paper (Ramakumar and Chavan 2007). Here, we extend the analysis up to 2011 and attempt to provide a more comprehensive explanation of the revival. The data used are from the official publications of the Reserve Bank of India (RBI).

After the nationalisation of commercial banks in 1969, "social and development banking" was declared to be an official policy objective of rural banking. Formal institutions of credit provision, mainly commercial banks, emerged as important sources of finance to agriculture, countervailing usurious moneylenders and landlords. The policy of social and development banking was supply-led; it aimed at augmenting the supply of credit to rural areas and providing credit at affordable interest rates (Ramachandran and Swaminathan, eds. 2005; Shetty 2006; Chavan 2005).

Three aspects of the post-1969 policy of social and development banking are relevant here. First, the new policy of branch licensing required commercial banks to open four branches in unbanked rural areas for every branch opened in a metropolitan or port area. As a result, while there were only 1,833 rural branches of banks in 1969, there were 35,206 rural branches of banks by 1991. Secondly, the policy of priority-sector lending required that 40 per cent of net bank credit be provided to those sectors of the economy (or sections of society) that would not get timely and adequate credit in the absence of binding targets. These loans, typically, were given to farmers for agriculture and allied activities (18 per cent), to micro and small enterprises, to poor people for housing, to students for education, and to other low-income groups and "weaker" sections (10 per cent). As a result, the share of credit from rural branches in total bank credit increased from 5.9 per cent in 1975 to 15 per cent in 1990. Thirdly, by the terms of the differential interest rate scheme of 1974, loans were provided at concessional interest rates on advances made by public banks for productive and gainful activities to selected low-income groups. The differential rate of interest was fixed uniformly at 4 per cent per annum, i.e., 2 percentage points below the bank rate.

There is little quarrel among economists on the effect that the increased flow of bank credit had on agricultural growth in India after 1969. The regulations on banking and the promotional role of the government were based on the recognition that rural credit markets are imperfect. The policy of social and development banking consciously mopped up surplus savings in the form of deposits from richer rural areas, and diverted them in the form of loans to savings-deficient rural areas (Ramachandran and Swaminathan, eds. 2005). The increased availability of credit from public banks helped small and marginal farmers to take advantage of costlier new technologies and implement new farming practices that were a part of the green revolution strategy.

In the early 1990s, the policy of social and development banking came under severe criticism. First, the RBI's Committee on the Financial System (Narasimham Committee I) argued for delinking monetary policy from the objective of redistribution (RBI 1991). It argued that banks should function on a commercial basis and that profitability should be the primary concern in their activities. The 4:1 norm for opening new branches under the branch licensing policy was removed and banks were permitted to "rationalise" their branch network in rural areas. Secondly, the definition of priority sector was broadened substantially. Thirdly, it was argued that banks should be given a free hand in setting rates of interest. Administered interest rates, the argument went, led to financial repression, or to a situation in which financial intermediation was weak because of negative real rates of interest on deposits, and a large spread between borrowing and lending rates. Liberalisers argued that financial repression discouraged private savings and investments in the economy.

Most of the recommendations of the Narasimham Committee were implemented in the 1990s and 2000s. The period of financial liberalisation after 1991 was one of a reversal of social and development banking. The consequences of that reversal for the supply of rural (and particularly agricultural) credit in the 1990s are well documented. There was (i) large-scale closure of commercial bank branches in rural areas; (ii) a widening of inter-State inequalities in credit provision and a fall in the proportion of bank credit directed towards regions where banking was historically underdeveloped; (iii) a sharp fall in the growth of the flow of credit to agriculture; (iv) a diversion of agricultural credit away from small and marginal farmers; (v) greater exclusion of the disadvantaged and dispossessed sections of the population from the formal financial system; and (vi) a strengthening of the hold of moneylenders on rural debt portfolios. (For details, see Ramachandran and Swaminathan, eds. 2005; Shetty 2006; Chavan 2005, 2007).[1]

In 2004, the Government of India announced that it intended to double the flow of credit to agriculture over a period of three years (Ministry of Agriculture 2007). A "comprehensive credit policy" was announced in June 2004. It included promises to raise agricultural credit by 30 per cent a year; to finance 100 farmers per bank branch (and thus five million, or fifty lakh, farmers in a year); to make two to three new investments in agricultural projects per bank branch every year; and to implement a host of debt-relief measures, such as debt restructuring, one-time settlements, and financial assistance to settle loans from moneylenders (*ibid.*).

Official circles claim that from 2004 onwards, the flow of credit to agriculture has been increasing at a rapid rate, even surpassing the annual targets set for such growth (Ministry of Finance 2007; NABARD 2013). The next section of this paper deals with trends in agricultural credit in the 2000s, and closely examines the claim that the

[1] Also see Subbarao (2012) and Government of India (2007).

stagnation of agricultural credit in the 1990s was set right in the 2000s. We deal only with credit from commercial banks here (we propose to examine issues relating to agricultural credit from cooperatives in a later article).

Trends in Agricultural Credit in the 2000s

Historically, the main component of agricultural credit has been credit provided directly to cultivators, in the form of "direct credit to agriculture." Direct credit to agriculture consists of short-term credit, or credit for seasonal agricultural operations, and long-term credit for fixed capital investments in agriculture. Short-term loans to agriculture are also referred to as "crop loans," as they are advanced for crop cultivation and against the hypothecation of the crop to be cultivated by the farmer. Crop loans are provided in cash or in kind, in the form of fertilizers and seeds. The second component of agricultural credit is called "indirect credit," which does not go directly to cultivators but to institutions that support agricultural production in rural areas. The typical forms of indirect credit to agriculture were loans to agricultural input dealers and loans to electricity boards that supplied power to cultivators.

The growth of commercial bank credit to agriculture was significantly lower in the 1990s than in the 1980s.[2] First, about 922 rural bank branches were closed down between 1995 and 2005, that is, following liberalisation of the branch licensing policy (Ramakumar and Chavan 2011). Secondly, after recording an annual rate of growth of 6.8 per cent between 1981 and 1990, agricultural credit grew at just 2.6 per cent per annum between 1991 and 2001 (at constant prices). Further, the growth rate of agricultural credit in the 1990s was lower than the growth rate of the rural population in the same period (Chavan 2002).

The slowdown in the reach and supply of agricultural credit in the 1990s was reversed in the period after 2000. Two important changes occurred in the 2000s. First, the number of rural bank branches increased after 2005. While 922 rural bank branches were closed down between 1995 and 2005, 5,710 new rural bank branches were opened between 2005 and 2012 (Table 1). More than 10,000 semi-urban bank branches were opened after 2005.

The rise in the number of rural bank branches was an outcome of the policy of "financial inclusion," implemented after 2005. The branch licensing policy was replaced by a "branch authorisation policy" in 2005. This policy required that at least 25 per cent of new branches under the Annual Branch Expansion Plan (ABEP) of banks be located in under-banked rural locations. Further, for each additional branch

[2] The slowdown in the growth of agricultural credit flow in the 1990s prompted Y. V. Reddy, the then Governor of the Reserve Bank of India (RBI), to note: "the flow of credit to rural areas by [public sector] banks in recent years has not been up to the mark....In fact, the very purpose of deregulation of interest rates for this sector, which was expected to encourage banks to lend higher, does not seem to have served its purpose fully" (Reddy 2001, pp. 4–5).

Table 1 *Changes in the number of bank branches in India, by population group, 1991 to 2012*

Year ending	Number of bank branches				
	Rural	Semi-urban	Urban	Metropolitan	Total
March 1991	35206	11344	8046	5624	60220
March 1994	35329	11890	8745	5839	61803
Change, 1991 to 1994	*123*	*546*	*699*	*215*	*1583*
March 1995	33004	13341	8868	7154	62367
March 2005	32082	15403	11500	9370	68355
Change, 1995 to 2005	*−922*	*2062*	*2632*	*2216*	*5988*
March 2005 (corrected)	30646	15253	12315	11685	69899
March 2006	30579	15556	12032	11304	69471
March 2007	30551	16361	12970	11957	71839
March 2008	31076	17675	14391	12908	76050
March 2009	31667	18969	15733	14178	80547
March 2010	32624	20740	17003	15026	85393
March 2011	33683	22843	17490	16247	90236
March 2012	36356	25797	18781	17396	98330
Change, 2005 to 2012	*5710*	*10544*	*6466*	*5711*	*28431*

Notes: (i) The number of branches/offices in this table excludes administrative offices. (ii) The time-periods shown in the table are time-periods for which the number of branches is comparable. Data on branches/credit by population group are not strictly comparable across time. This is because the Reserve Bank of India (RBI) periodically updates the classification of centres using the latest available Census figures. Till 1994, centres were classified using the Census of 1981. From 1995, the RBI began to use data from the Census of 1991. From 2006, data from the 2001 Census were used to classify the centres. However, for one year, 2005, the RBI has also published comparable data after reclassification of centres as per data from the Census of 2001 (see Ramakumar and Chavan 2011).

Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

opened in Tiers 2 to 6 (i.e., urban, semi-urban or rural locations), banks were offered an incentive: they could open one branch in any metropolitan centre (Tier 1 centres). However, the total number of branches thus opened in Tier 1 centres was not to exceed the total number of branches proposed to be opened in Tiers 2 to 6 centres.

The number of rural bank branches increased in every region and State of the country after 2005, with the exceptions of Manipur and Mizoram (see Table 2). The increase in the number of rural bank branches between 2006 and 2011 was highest in the northern, southern, and central regions. Among States, the largest number of rural bank branches were opened in Uttar Pradesh (480), followed by Andhra Pradesh (305), Punjab (198), Gujarat (196), and Tamil Nadu (185).

The increase in the number of branches was accompanied by a sharp rise in the growth of credit flow to agriculture. Between 2001 and 2011, agricultural credit grew by 17.8 per cent per annum, a growth rate significantly higher than in the 1990s (Table 3). The growth rate of agricultural credit in the 2000s was higher than the growth rate of total bank credit, and appeared to be positively associated with the rise in the growth rate of agricultural GDP in the 2000s. In Figure 1, we have normalised the growth of agricultural credit with respect to population growth; agricultural credit outstanding per million rural population fell in the 1990s and rose sharply in the 2000s.

The increase in the growth rate of agricultural credit in the 2000s was so significant that the level of credit reached in 2011 was substantially higher than it would have been if credit had grown in the 1990s and 2000s at the growth rate of the 1980s (see Figure 2).

The revival of agricultural credit occurred across regions and States of the country. The southern, northern, and north-eastern regions saw a higher-than-national-average growth of credit outstanding to agriculture between 2001 and 2011 (Table 4). In the north-eastern and eastern regions, the growth of agricultural credit was negative in the 1990s, while the growth of agricultural credit in the central region was almost stagnant. These three regions have been historically under-banked, and hence the revival of credit flow to agriculture after 2001 was a significant phenomenon.

In sum, the number of rural bank branches and credit flow to agriculture picked up significantly in the 2000s. Between 2004 and 2011, agricultural credit rose in nominal terms from Rs 964,250 million (96,425 crores) to Rs 4610,210 million (461,021 crores), an increase of Rs 3647,760 million (364,776 crores).

Features of Agricultural Credit Growth in the 2000s

The objective of this paper is to go beyond the aggregate data on credit flows to agriculture, and attempt a disaggregated analysis of the directions of agricultural credit flow in the 2000s. What were the main features of the period of revival? Who were the

Table 2 *Changes in the number of bank branches in India, by population group, by region and State, 2006 to 2011*

Region/State	Number of bank branches			
	Rural	Semi-urban	Urban	Metropolitan
Central Region	*614*	*1350*	*1401*	*725*
Chhattisgarh	43	134	185	0
Madhya Pradesh	11	359	316	204
Uttarakhand	80	164	116	0
Uttar Pradesh	480	693	784	521
Eastern Region	*453*	*1024*	*1005*	*322*
Andaman & Nicobar Islands	2	6	0	0
Bihar	82	282	216	96
Jharkhand	66	204	189	0
Odisha	130	322	244	0
West Bengal	173	210	356	226
North-Eastern Region	*41*	*193*	*195*	*0*
Arunachal Pradesh	0	17	0	0
Assam	18	126	129	0
Manipur	−1	1	5	0
Meghalaya	3	12	17	0
Mizoram	−3	3	20	0
Nagaland	3	19	0	0
Tripura	21	15	24	0
Northern Region	*630*	*1362*	*1147*	*1216*
Chandigarh	4	0	89	0
Haryana	166	303	399	58
Himachal Pradesh	106	123	28	0
Jammu & Kashmir	30	69	69	0
National Capital Territory of Delhi	10	4	0	831
Punjab	198	491	229	153
Rajasthan	116	372	333	174
Southern Region	*595*	*2345*	*1856*	*1351*
Andhra Pradesh	305	512	748	428
Karnataka	102	321	331	588
Kerala	3	679	340	0
Tamil Nadu	185	833	437	335
Western Region	*382*	*928*	*665*	*1416*
Goa	35	78	0	0
Gujarat	196	376	199	462
Maharashtra	151	474	466	954
All-India	*2715*	*7202*	*6269*	*5030*

Notes: (i) The number of branches/offices in this table includes administrative offices.
(ii) Data on the Union Territories are excluded, except for Andaman & Nicobar Islands.
Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

Table 3 *Rate of growth of credit to agriculture, total bank credit, and agricultural GDP, at constant prices, India, 1972 to 2011* in per cent per annum

Period	Annual growth rates of		
	Credit to agriculture	Total bank credit	Agricultural GDP
1972–1981	16.1	8.4	2.3
1981–1991	6.8	8.0	3.5
1991–2001	2.6	7.3	2.8
2001–2011	17.8	15.7	3.3

Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues; Central Statistical Organisation (CSO), *National Accounts Statistics*, various issues.

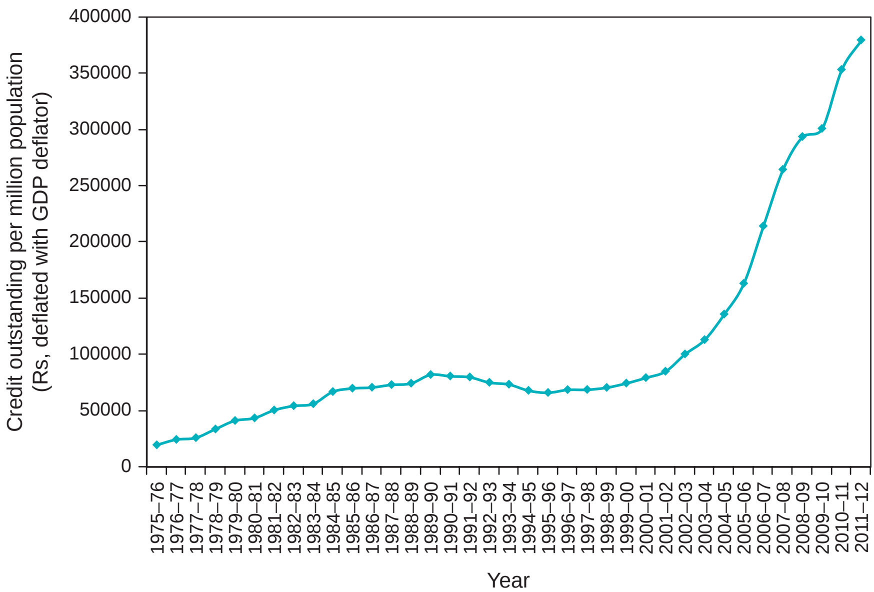

Figure 1 *Agricultural credit outstanding per million population, rural India, deflated with GDP deflator, base year 2004–05, 1975–76 to 2011–12* in rupees
Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

recipients of the increased credit flow to agriculture? To what extent is the claim of agricultural credit expansion real? We propose to answer these questions by pointing to certain disquieting features of the growth of agricultural credit in the 2000s.

There are seven distinct features of agricultural credit growth that have had a major role in determining the actual increase in credit supply as well as its distribution within the agricultural sector. These features are discussed separately in the sub-sections below.

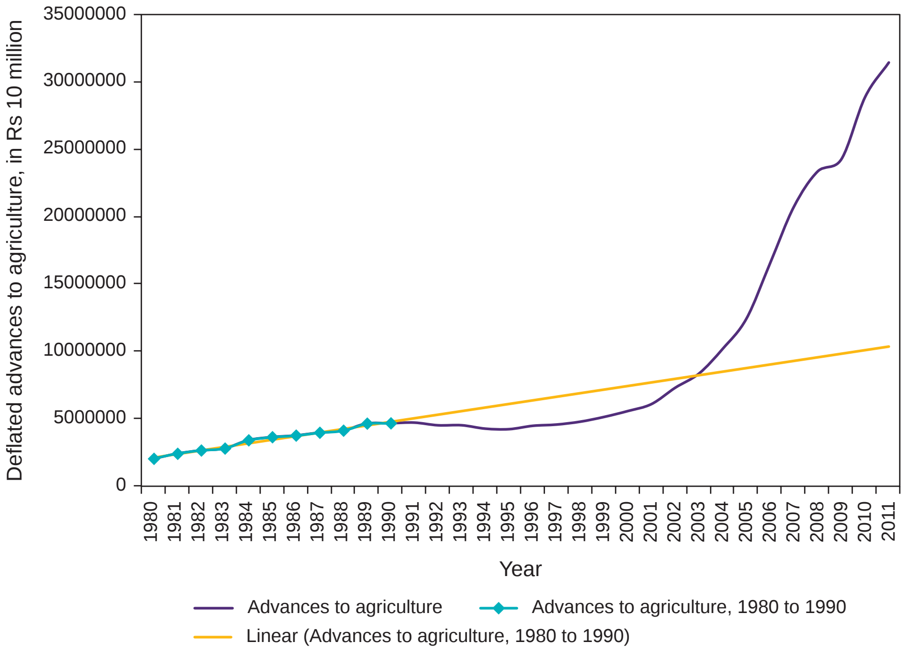

Figure 2 *Trends in the supply of total agricultural advances between 1980 and 2011, and projected linear trend line for credit supply in the 1980s, deflated series* in 10 million rupees
Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

Rural Population per Branch

An important indicator of the geographical spread of rural banking is the figure for rural population per bank branch. In 1969, there were more than 82,000 rural persons per branch, a figure that came down to 13,665 rural persons per branch in 1990 (see Table 5).[3] Between 1995 and 2005, many rural bank branches were closed down and, as a result, the number of rural persons per branch rose from 14,587 to 16,563. The number of rural persons per bank branch between 2006 and 2011 declined from 17,313 to 15,153, but remained higher than the corresponding figures for 1990 and 1995.

If data for urban and rural bank branches are combined, we find that the general population per branch fell at a rate faster than the rural population per branch. Further, the general population per branch in 2011 was lower than in 1990 or 1995, indicating a faster expansion of branches relative to population in non-rural centres than in rural centres. In other words, the pace of expansion of rural branches after 2006 did not catch up with the rise in population in rural areas.

[3] Rural persons per branch refers to rural population divided by the number of rural plus semi-urban branches.

Table 4 *Rates of growth of agricultural credit, at constant prices, by region and State, 1991 to 2011* in per cent per annum

Region/State	Rate of growth of total agricultural credit	
	1991–2001	2001–2011
Northern Region	*3.8*	*18.3*
Haryana	−0.2	18.3
Himachal Pradesh	−1.8	22.1
Jammu & Kashmir	−3.3	16.3
Punjab	2.1	15.8
Rajasthan	5.7	16.7
Delhi	16.2	22.8
North-Eastern Region	*−5.9*	*18.5*
Arunachal Pradesh	−0.3	11.3
Assam	−6.9	19.1
Manipur	0.1	20.8
Meghalaya	−7.6	15.9
Nagaland	−9.6	15.3
Tripura	−0.2	16.1
Eastern Region	*−1.2*	*13.7*
Bihar	−4.1	12.3
Odisha	0.1	17.9
West Bengal	1.4	20.7
Andaman & Nicobar Islands	1.7	6.7
Central Region	*0.6*	*12.0*
Madhya Pradesh	1.7	11.4
Uttar Pradesh	0.0	12.8
Western Region	*3.4*	*16.4*
Goa	−7.3	14.9
Gujarat	2.9	16.6
Maharashtra	3.9	16.4
Southern Region	*2.0*	*18.5*
Andhra Pradesh	1.8	18.4
Karnataka	3.7	14.6
Kerala	2.8	19.3
Tamil Nadu	0.3	21.7
All-India	*2.6*	*17.8*

Note: Data for States formed in the 2000s have been merged with data from the States from whose territory they were formed.
Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

Table 5 *Population per bank branch, rural and total, 1969 to 2011*

Year	Rural population per branch	Total population per branch
1969	82,079	62,697
1990	13,665	13,757
1995	14,587	14,591
2005	16,563	15,932
2006	17,313	15,920
2011	15,153	13,139

Notes: (i) On the periodisation adopted in this table, see note (ii) to Table 1.
(ii) Rural population per branch refers to rural population divided by the number of rural plus semi-urban branches.
(iii) The estimates of population are taken from the Reserve Bank of India's *Handbook of Statistics on Indian Economy* (various issues). To these estimates, the proportions of rural population available from the Census of India for various years are applied to arrive at estimates of rural population.
Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

The Rise of Indirect Credit

A significant proportion of the increase in total bank credit to agriculture in the 2000s was accounted for by *indirect* credit. Of the total increase in agricultural credit between 2002 and 2010, more than one-fourth (26 per cent) was in the form of indirect credit.

Between 1985 and 1990, the share of indirect credit in total agricultural credit actually fell. But in the next two decades, the share of indirect credit in total agricultural credit rose consistently (see Table 6). The share began to rise in the 1990s, particularly after 1998, and reached 23.9 per cent in 2005, 27.9 per cent in 2006, and 23.9 per cent in 2010. Although the share of indirect credit fell after 2010, it is clear that it made a distinct contribution to the increase of agricultural credit in the 2000s.

Data that are disaggregated by region and State show that the share of indirect credit was higher in three regions of India - western, northern, and eastern - than in the others (Table 7). The supply of indirect credit was particularly large in the western and eastern regions through the early 1990s. By 2001, 27.3 per cent of agricultural credit in the northern region and 26.4 per cent of agricultural credit in the western region consisted of indirect credit. In 2008, the share of indirect credit in the northern region went up to 54.6 per cent; in other words, the supply of indirect credit was higher than the supply of direct credit even in absolute terms. From 2006 onwards, the share of indirect credit in the eastern region also began to register a rise. From just 9 per cent of total agricultural credit in 2001, the share of indirect credit in this region rose to 24.4 per cent by 2010.

Table 6 *Shares of direct and indirect agricultural credit in total agricultural credit from scheduled commercial banks, 1985 to 2011* in per cent

Year	Share in total agricultural credit		
	Direct credit	Indirect credit	Total
1985	83.2	16.8	100.0
1990	86.8	13.2	100.0
2000	84.5	15.5	100.0
2005	76.1	23.9	100.0
2006	72.1	27.9	100.0
2007	74.5	25.5	100.0
2008	77.5	22.5	100.0
2009	77.1	22.9	100.0
2010	76.1	23.9	100.0
2011	82.0	18.0	100.0

Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

Table 7 *Share of indirect agricultural credit in total agricultural credit, by region, 1990 to 2011* in per cent

Region	Share of indirect credit in total agricultural credit								
	1990	1995	2001	2006	2007	2008	2009	2010	2011
Northern Region	14.7	13.0	27.3	37.4	39.8	54.6	39.9	39.1	26.2
North-Eastern Region	12.0	25.2	14.0	21.5	14.9	14.0	14.3	12.2	6.7
Eastern Region	12.3	16.7	9.0	21.5	19.5	20.3	21.5	24.4	17.4
Central Region	10.5	7.5	7.5	12.6	10.2	11.8	15.1	16.3	14.7
Western Region	20.9	25.2	26.4	41.0	35.6	27.9	26.0	24.0	16.9
Southern Region	11.1	12.4	11.5	22.9	19.2	15.4	17.4	18.6	15.4
All-India	*13.2*	*14.2*	*16.1*	*27.9*	*25.5*	*22.5*	*22.9*	*23.9*	*18.1*

Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

One important reason for the rise of indirect credit was changes in the coverage of the term "priority sector."[4] Till 1993, only direct credit to agriculture was considered to be a part of the priority-sector target of 18 per cent for agriculture and allied activities. From 1993 onwards, direct and indirect credit were considered together when computing priority-sector targets. Within the 18 per cent target for agriculture and allied activities, indirect credit was not to exceed 4.5 per cent and the floor for direct credit was stipulated at 13.5 per cent. Nevertheless, indirect credit over and

[4] According to Y. V. Reddy, the "definition of priority sector lending has been broadened significantly in recent years, thus overestimating credit flows to actual agricultural operations" (Reddy 2001, p. 5).

above 4.5 per cent was allowed to be taken into consideration in meeting the overall target of 40 per cent for priority-sector advances.

Changes in the Coverage of Indirect Credit

The coverage of what constitutes indirect credit to agriculture also expanded significantly. Traditionally, indirect credit was understood as credit that would not go directly to farmers, but to activities undertaken by individuals and institutions that aided farmers in undertaking cultivation. Loans given for the provision of agricultural inputs (to dealers), power (to electricity boards), and formal credit (to primary agricultural credit societies) were such typical indirect activities. After the late 1990s, the meaning of indirect itself underwent major changes. These changes are listed below.[5]

Between 1994 and 2012, many types of loans not hitherto considered to be indirect credit to agriculture were brought within the scope of that category. The types of loans newly categorised as indirect credit included the following:

- From 1994 onwards, loans up to Rs 0.5 million (Rs 5 lakh) for financing distribution of inputs for allied activities in agriculture, such as cattle feed and poultry feed, were included in the category of indirect credit to agriculture. The upper limits were revised and fixed at Rs 1.5 million (Rs 15 lakh) in 2000, Rs 2.5 million (Rs 25 lakh) in 2002, Rs 4 million (Rs 40 lakh) in 2004, Rs 10 million (Rs 1 crore) in 2012, and Rs 50 million (Rs 5 crore) in 2013.
- From 1996 onwards, loans to dealers in drip irrigation systems, sprinkler irrigation systems, and agricultural machinery were included in the category of indirect credit to agriculture. From 2002 onwards, the credit limit to these dealers was raised from Rs 1 million (Rs 10 lakh) to Rs 2 million (Rs 20 lakh); it was further raised to Rs 3 million (Rs 30 lakh) in 2004 and Rs 50 million (Rs 5 crore) in 2013. Till 2003, only loans to dealers located in rural or semi-urban areas fell within the definition of indirect credit. However, from 2003 onwards, all dealers, irrespective of their location, were treated as eligible for such advances.
- Loans extended to State Electricity Boards (SEBs) for reimbursement of expenditure towards providing low-tension connections to individual farmers from step-down points for energising wells have historically been classified as indirect credit to agriculture. From 2001 onwards, loans to SEBs for systems improvement under the Special Project Agriculture (SI-SPA) were also considered as constituting indirect credit to agriculture. From 2005 onwards, loans to power distribution corporations or companies emerging out of the bifurcation or restructuring of SEBs as part of the power sector reforms were considered as indirect credit to agriculture. In 2010, however, such loans were removed from the list of eligible categories of indirect credit to agriculture.

[5] To document the definitional changes, we have referred to the annual "Master Circulars on Lending to Priority Sector" issued by the RBI every July.

- From 2001 onwards, loans extended under the scheme for financing "agri-clinics" and "agribusiness centres" were included in the category of indirect credit to agriculture.
- From 2001 onwards, subscriptions to bonds issued by Rural Electrification Corporations (RECs) exclusively for financing the pump-set energisation programme in rural and semi-urban areas were included.[6]
- From 2000 onwards, loans from banks to Non-Banking Financial Companies (NBFCs) for on-lending to agriculture were included.
- From 2002 onwards, loans for the construction and running of storage facilities (warehouses, market yards, godowns, silos, cold storages) *in the producing areas*, and loans to cold-storage units located *in rural areas* – facilities used for hiring and/or storing mainly agricultural produce – were included in the category of indirect credit. From 2004 onwards, loans to storage units, including cold-storage units, that were *designed* to store agricultural produce, *irrespective of their location*, were treated as indirect credit to agriculture.
- From 2004 onwards, if the securitised assets of a bank represented indirect credit to agriculture, investment by banks in such assets was included in the category of indirect credit.
- From 2007 onwards, loans to food- and agro-based processing units with investments in plant and machinery up to Rs 100 million (Rs 10 crore) (other than units run by individuals, self-help groups, and cooperatives in rural areas) were included in the category of indirect credit.
- From 2007 onwards, two-thirds of the loans given to *corporates*, *partnership firms* and *institutions* for agricultural and allied activities (such as bee-keeping, pig farms, poultry farms, fisheries, and dairies) in excess of Rs 10 million (Rs 1 crore) in aggregate per borrower were included in this category. The rest was treated as direct credit.
- From 2013 onwards, all loans given to *corporates*, *partnership firms* and *institutions* for agricultural and allied activities in excess of Rs 20 million (Rs 2 crore) in aggregate per borrower were treated as indirect credit. All such loans below Rs 20 million (Rs 2 crore) were treated as direct credit.

In Figure 3, we have presented trends in the different types of indirect credit to agriculture between 1971 and 2011. The graphs show that the traditional components of indirect credit to agriculture did not show any notable recovery in the 2000s. However, loans under the category "other types of indirect credit" began to increase from 1996 onwards, and recorded a phenomenal increase after 1999. From 1999 to 2009, "total indirect credit" and "other types of indirect credit" moved in close tandem.

[6] However, in 2004, it was decided not to consider the investments made by banks after April 1, 2005 in the bonds of Rural Electrification Corporation (REC) under indirect finance to agriculture.

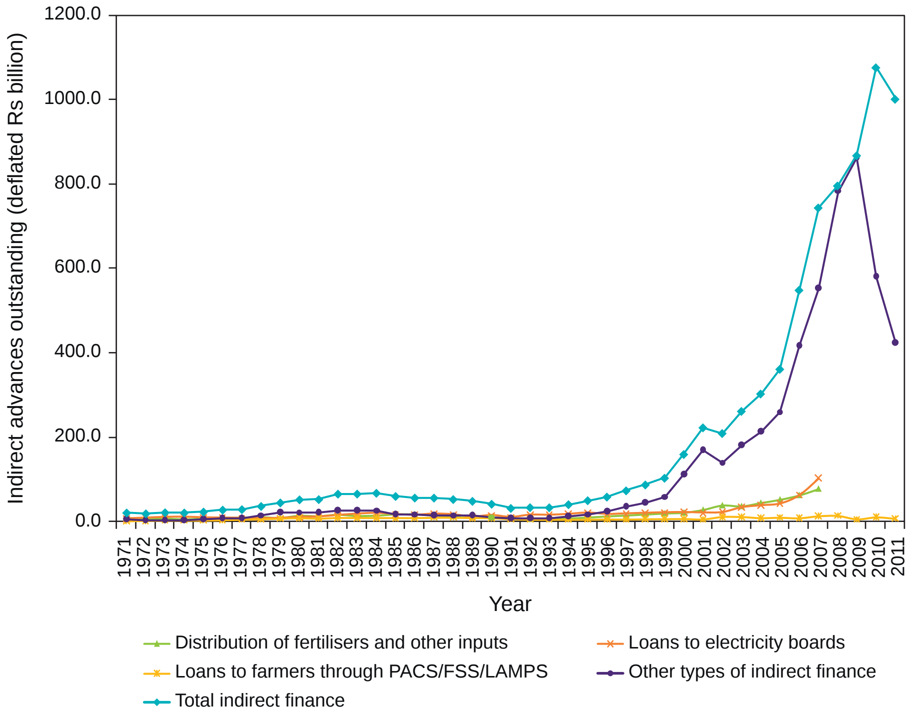

Figure 3 *Trends in the supply of different types of indirect credit to agriculture by scheduled commercial banks, deflated figures, 1971 to 2011*, in billion rupees

Source: Reserve Bank of India (RBI), *Handbook of Statistics on Indian Economy*, various issues.

Our estimates show that the share in total indirect credit of "other types of indirect credit," which was 57 per cent in 1999, increased to 74 per cent in 2007.[7]

In sum, indirect credit to agriculture expanded rapidly after the late 1990s. Most of the definitional changes (which either expanded the ambit of indirect credit or raised the ceiling on the size of loans) also took place after the late 1990s. The obligation of banks to follow the government's 2004 directive to double agricultural credit became much easier after major changes were made in the definition of indirect credit to agriculture.

The promotion of indirect credit to agriculture by banks reflects the changing pattern of demand for credit as well as shifts in public policy on agriculture. In essence, most of the new forms of indirect credit are related to investments in the agricultural value chain, such as finance for the construction of warehouses, cold-storage chains, large-scale dairy farms, contract farming, start-up entrepreneurs, private agricultural

[7] After 2007, figures for certain types of indirect credit, such as for the distribution of fertilizers and other inputs, and loans to electricity boards, are not available. Hence the comparison cannot be extended beyond 2007.

extension services, drip irrigation projects, food parks, and so on. The Indian Banks' Association (IBA) released a document in 2008 with recommendations to increase the flow of credit to agriculture (IBA 2008). It recommended that banks should take to financing private participation or joint ventures in irrigation projects, extend credit to corporate houses in order to process and export agricultural products, and on-lend to farmers in contract-farming agreements and commercial horticulture. It noted that "contract farming has the potential for expanding credit outreach, especially to the small and marginal farmers and oral lessees" (*ibid.*, p. 39). In other words, banks expressed a major interest in funding projects outside the traditional sphere of agricultural credit.

An increase in indirect credit is necessary to improve the capacity of farmers to absorb more direct credit. However, the promotion of indirect credit should not lead to an undermining of direct credit. In 2004, the RBI's Advisory Committee on Flow of Credit to Agriculture and Related Activities noted the demand made by banks to relax the stipulation that indirect credit to agriculture should not exceed 4.5 per cent of net bank credit (RBI 2004). This stipulation had been put in place in order to channel bank credit directly to farmers. The Advisory Committee rejected the banks' demand, noting that

> indirect lending needs to be subject to certain limitations, lest banks neglect direct credit for agricultural production, which may jeopardise the goal of achieving annual growth of 4 per cent in agricultural production. (*Ibid.*, p. 32)[8]

Increase in Large-Size Agricultural Loans

Much of the increase in advances to agriculture in the 2000s was on account of a sharp increase in the share of large-size loans. Concurrently, the share of small-size loans in agricultural credit declined significantly between 1990 and 2011.

Ideally, any meaningful comparison of agricultural credit across time should be attempted after deflating the credit series and dividing them into uniform size-classes. However, such deflation requires account-level figures on agricultural credit, which are not available. Nevertheless, an agricultural loan of size Rs 200,000 could be safely considered as the upper limit of a farmer's loan in rural India both in the 1990s and 2000s. If we consider the example of crop loan provisions for sugarcane by credit cooperatives in Maharashtra, the maximum loan that a five-acre farmer could avail was fixed at Rs 192,000 even in 2014–15.[9] Among all crops, sugarcane has one of the highest scales of crop finance. In other words, a loan of size above Rs 200,000 in 2011 could be unarguably considered a large-size agricultural loan. Hence, the construction of size-classes of loans with Rs 200,000 as the upper limit allows us to

[8] It is a different matter that many of the changes in the definition of indirect finance to agriculture in 2004 were made on the basis of the report of the same Advisory Committee.

[9] Calculations are based on scale of finance fixed by the Pune District Central Cooperative Bank (PDCC) for the year 2014–15 for sugarcane (*adsali*). See PDCC (2013).

Table 8 *Distribution of amount outstanding under direct agricultural advances by scheduled commercial banks, by broad size-class of credit limit, 1985 to 2011* in per cent

Year	Share of amount of direct advances with credit limit					
	< Rs 200,000	> Rs 200,000	Total	< Rs 1 million (Rs 10 lakh)	> Rs 1 million (Rs 10 lakh)	Total
1985	na	Na	100.0	96.7	3.3	100.0
1990	92.2	7.7	100.0	95.8	4.1	100.0
1995	89.1	10.9	100.0	93.6	6.4	100.0
2000	78.5	21.4	100.0	91.3	8.6	100.0
2003	72.6	27.4	100.0	87.5	12.5	100.0
2005	66.7	33.4	100.0	88.1	12.0	100.0
2006	60.8	39.2	100.0	86.3	13.7	100.0
2011	48.0	52.0	100.0	76.2	23.8	100.0

Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

judge the changes in the shares of small and marginal farmers in total agricultural credit.

Table 8 presents a broad size-classification of the amount of direct credit. We have divided the amount of direct credit into loan categories of less than Rs 200,000 each and more than Rs 200,000 each. We have also divided the amount of direct credit of less than Rs 1 million (Rs 10 lakh) each and loans that are above Rs 1 million (Rs 10 lakh) each. If Rs 200,000 is taken as the upper limit of a typical agricultural loan, then, the data in Table 8 show that direct agricultural loans to farmers constituted only 48 per cent of total direct agricultural credit in 2011. The corresponding share was 92.2 per cent in 1990, 78.5 per cent in 2000, and 66.7 per cent in 2005. A similar conclusion emerges from the classification of the amount advanced as direct credit into size-classes of loans below Rs 1 million (Rs 10 lakh) each and more than Rs 1 million (Rs 10 lakh) each. In 1990, the total amount disbursed as loans that were more than Rs 1 million (Rs 10 lakh) each was 4.1 per cent of the total amount; this share rose to 8.6 per cent in 2000, 12 per cent in 2005, and 23.8 per cent in 2011.

Table 9 presents the distribution of the amount of total agricultural advances (direct plus indirect) by size-classes of credit limits between 1990 and 2011. The share in total amount of advances of advances less than Rs 25,000 declined significantly, from 58.7 per cent in 1990 to just 5.8 per cent in 2011. The total amount of loans of size less than Rs 200,000 (Rs 2 lakh) constituted 82.6 per cent of all loans in 1990, 51.9 per cent in 2005, and just 41.4 per cent in 2011. On the other hand, the share in total advances of loans of size above Rs 100 million (Rs 10 crore) increased from 1.3 per cent in 1990 to 20.4 per cent in 2011. If we consider the amount of loans of size above Rs 250 million (Rs 25 crore), the corresponding shares were 5.7 per cent in 2000 and 17.7 per cent in 2011.

Table 9 *Distribution of amount outstanding under total agricultural advances by scheduled commercial banks, by credit limit size-class of loan, 1990 to 2011* in per cent

Credit limit size-class of loan (Rs)	Share of amount outstanding in total amount outstanding			
	1990	2000	2005	2011
Less than 25,000	58.7	35.2	17.8	5.8
25,000 to 200,000	23.9	32.4	34.1	35.6
200,000 to 1 million	4.3	11.7	17.9	22.6
1 million to 10 million	7.6	6.6	6.4	6.4
10 million to 100 million	4.2	6.7	8.0	6.3
100 million to 250 million	1.3	1.7	3.3	2.7
Above 250 million		5.7	12.6	17.7
Total advances	100.0	100.0	100.0	100.0

Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

Table 10 *Distribution of amount outstanding under direct agricultural advances by scheduled commercial banks, by credit limit size-class of loan, 1990 to 2011* in per cent

Credit limit size-class of loan (Rs)	Share of amount outstanding in total amount outstanding			
	1990	2000	2005	2011
Less than 25,000	66.1	41.1	22.9	6.7
25,000 to 200,000	26.1	37.4	43.8	41.3
200,000 to 1 million	3.6	12.8	21.4	28.3
1 million to 10 million	2.6	3.9	4.5	7.1
10 million to 100 million	1.2	3.1	4.1	5.7
100 million to 250 million	0.3	0.4	1.4	2.4
Above 250 million		1.2	2.0	8.5
Total advances	100.0	100.0	100.0	100.0

Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

Table 10 shows the distribution of *direct* agricultural advances alone by size-classes of credit limit. The results are even more striking. Under direct credit, only 6.7 per cent of total advances were made up of loans of size less than Rs 25,000. Another 41.3 per cent of total direct advances were loans of sizes between Rs 25,000 and Rs 200,000. On the other hand, about 17 per cent of direct advances were made up of loans that were more than Rs 10 million (Rs 1 crore).

Changes in the Definition of Direct Credit

A series of changes in the definition of "direct credit" were introduced after the late 1990s, and all of them either expanded the coverage of direct credit or raised its upper limit. We list the definitional and related changes below.

- In 1997, short-term loans to traditional plantations (such as tea, coffee, rubber, and spices), *irrespective of size of holding*, were brought under the category of direct credit to agriculture. Later, all loans (short-term, medium-term, and long-term) to traditional and non-traditional plantations and horticulture, irrespective of size of holding, were brought under this category.
- From 2002 onwards, the upper limit for loans given against the pledge or hypothecation of agricultural produce (which included warehouse receipts) for a period not exceeding six months was raised from Rs 100,000 to Rs 500,000 for a period not exceeding 12 months. In 2007, the upper limit was raised from Rs 500,000 to Rs 1 million (Rs 10 lakh). The limit was further raised to Rs 2.5 million (Rs 25 lakh) in 2012 and Rs 5 million (Rs 50 lakh) in 2013. Until 2007, these loans were given only to individual farmers who had sought crop loans from banks. From 2007 onwards, these loans were given to individual farmers irrespective of whether they had sought crop loans.
- From 2007 onwards, the entire amount of loans given to corporates, partnership firms, and institutions for agricultural and allied activities up to Rs 10 million (Rs 1 crore), and one-third of the loans in excess of Rs 10 million (Rs 1 crore), in aggregate per borrower were considered to be direct credit to agriculture (the remaining two-thirds were categorised as indirect credit). From 2013, loans extended to corporates, partnership firms, and institutions for agricultural and allied activities of up to Rs 20 million (Rs 2 crore) were included entirely under direct credit.

Urbanisation of Agricultural Credit

The provision of agricultural credit from bank branches located in urban and metropolitan areas increased in the 2000s.[10] Agriculture is primarily a rural occupation, and most agricultural loans should be issued from rural branches of banks. However, the share of agricultural credit outstanding from rural branches fell in the 2000s (Table 11).

Between 1995 and 2005, the share of direct credit to agriculture outstanding in rural branches fell from 56.5 per cent to 52.9 per cent. Between 2006 and 2011, the corresponding shares fell from 48 per cent to 43.2 per cent. On the other hand, the share of direct agricultural credit outstanding in urban and metropolitan bank branches rose from 12.2 per cent in 1995 to 15.7 per cent in 2005, and from 20.1 per cent in 2006 to 25.6 per cent in 2011. This reflects a diversion of direct agricultural credit away from rural farmers, and towards urban-based dealers (as indirect credit), and urban-based corporates and joint-stock companies (as direct credit).

Our region-wise analysis showed that the share of agricultural credit outstanding in 2011 from urban and metropolitan bank branches was above 25 per cent in all regions

[10] On this point, see Chavan (2010) and Chakrabarty (2011).

Table 11 *Share of agricultural credit outstanding from bank branches, by population group, by direct and indirect credit, 1995 to 2011* in per cent

Year	Share of agricultural credit outstanding from bank branches				
	Rural	Semi-urban	Urban	Metropolitan	Total
Total agricultural credit					
1995	51.7	29.3	9.5	9.5	100.0
2005	43.0	26.4	11.7	19.0	100.0
2006	37.1	25.3	13.8	23.8	100.0
2011	37.9	29.0	18.4	14.7	100.0
Direct credit					
1995	56.5	31.2	8.2	4.0	100.0
2005	52.9	31.4	10.0	5.7	100.0
2006	48.0	32.0	12.6	7.5	100.0
2011	43.2	31.2	16.5	9.1	100.0
Indirect credit					
1995	23.9	18.5	16.8	40.8	100.0
2005	11.4	10.2	17.2	61.2	100.0
2006	9.1	7.8	17.0	66.0	100.0
2011	13.6	19.0	27.1	40.2	100.0

Note: On the periodisation in this table, see note (ii) to Table 1.
Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

of India other than the central and north-eastern regions (Table 12). The western region recorded the highest share of direct agricultural credit outstanding in urban or metropolitan branches in 2011, 34.5 per cent.

Our State-wise analysis showed that that the top three States with regard to the amount of agricultural credit advanced by urban and metropolitan bank branches in 2011 were West Bengal, Maharashtra, and Tamil Nadu (see Table 13). In West Bengal, if we take total (direct plus indirect) agricultural credit, 54.7 per cent of the total amount outstanding in 2011 was advanced by urban or metropolitan branches. Within this share, 40.1 per cent was outstanding from metropolitan branches (primarily from Kolkata) alone. Even with respect to direct agricultural credit in West Bengal, 53.3 per cent of the total was outstanding with urban and metropolitan branches, and 40 per cent was outstanding with metropolitan branches alone.

Similarly, in Maharashtra, 46.3 per cent of the total agricultural credit and 40.5 per cent of direct credit were outstanding from urban or metropolitan bank branches. In Tamil Nadu, 33 per cent of the total agricultural credit and 28.7 per cent of direct credit were outstanding from urban and metropolitan bank branches. The share

Table 12 *Share of outstanding direct agricultural credit from urban and metropolitan bank branches in direct agricultural credit from all bank branches, by region, 1991 to 2011* in per cent

Year	Share of outstanding direct credit from urban and metropolitan bank branches					
	Northern region	North-eastern region	Eastern region	Central region	Western region	Southern region
1991	11.4	14.1	10.4	9.2	12.9	12.2
1994	11.7	11.3	8.0	8.7	12.7	11.8
1995	13.1	8.8	8.9	8.4	11.8	12.6
2001	14.2	10.2	15.9	10.0	17.5	12.8
2005	12.8	13.4	18.4	9.4	29.7	15.7
2006	19.7	16.0	18.6	11.8	37.1	19.0
2007	22.0	12.0	21.7	11.5	35.6	22.0
2008	18.6	9.4	21.3	11.0	41.7	20.4
2009	24.2	12.4	20.8	11.3	29.9	21.3
2010	19.8	11.7	25.1	15.5	32.8	23.6
2011	25.8	12.5	30.3	17.0	34.5	25.9

Note: On the periodisation in this table, see note (ii) to Table 1.
Source: Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

of direct credit outstanding from metropolitan centres alone was 27.2 per cent in Maharashtra and 8.4 per cent in Tamil Nadu.

Within West Bengal and Maharashtra, respectively, the districts of Kolkata and Greater Mumbai (including Suburban Mumbai and Mumbai City) accounted for about 40 per cent and 20 per cent of direct agricultural credit in 2011.[11] The major metropolitan centres of banking in West Bengal and Maharashtra are located in Kolkata and Greater Mumbai districts.[12]

The urbanisation of agricultural credit corroborates the findings from the earlier analysis of loans by size-classes of credit limit. It reflects the diversion of agricultural credit away from farmers and crop cultivation *per se*, towards large-scale activities in agriculture by corporate and business houses located in urban and metropolitan areas.

[11] See also Chavan (2010).
[12] It is important to distinguish between a "district" and a "centre" in this regard. A centre is defined as the revenue unit classified and delineated by the respective State government; i.e., the revenue village/city/town/municipality/municipal corporation in which the bank branch is situated. Hence, a district may have more than one centre. The Greater Mumbai centre is an exception, as it covers the districts of Mumbai City and Suburban Mumbai. Kolkata city, which is the most important metropolitan centre of West Bengal, is located in Kolkata district. All bank branches within Mumbai and Kolkata cities are categorised as metropolitan branches.

Table 13 *Share of agricultural credit outstanding from urban and metropolitan bank branches in agricultural credit outstanding from all bank branches, West Bengal, Maharashtra, and Tamil Nadu, 2011* in per cent

State/Item of credit	Share of agricultural credit outstanding from bank branches				
	Rural	Semi-urban	Urban	Metropolitan	Total
West Bengal					
Total agricultural credit	31.3	14.0	14.6	40.1	100.0
Direct credit	33.1	13.6	13.3	40.0	100.0
Indirect credit	23.8	15.5	20.0	40.7	100.0
Maharashtra					
Total agricultural credit	30.4	23.3	13.3	33.0	100.0
Direct credit	34.3	25.3	13.3	27.2	100.0
Indirect credit	11.3	13.2	13.7	61.9	100.0
Tamil Nadu					
Total agricultural credit	31.6	35.5	18.6	14.4	100.0
Direct credit	32.3	39.0	20.3	8.4	100.0
Indirect credit	28.8	21.6	11.8	37.8	100.0

Source: Reserve Bank of India (RBI), *Database on Indian Economy*, available at www.rbi.org.in; and Reserve Bank of India (RBI), *Basic Statistical Returns of Scheduled Commercial Banks in India*, various issues.

The "March Phenomenon"

Month-wise disbursement patterns of agricultural loans from commercial banks show that most loans are disbursed in months of the year in which there is little agricultural activity. This is evident from the data for 2008–09 published in the *Report of the Task Force on Credit-Related Issues of Farmers*, chaired by U. C. Sarangi (see Table 14).[13] According to the report, about one-fourth (23 per cent) of the annual disbursement to agriculture by commercial banks was made in the month of March – "a matter of serious concern" as March was "not a critical month for agricultural production" (Ministry of Agriculture 2010, p. 34). Another 22.8 per cent of the disbursement was in the months of January and February. Thus, together, about 46.2 per cent of all disbursements were made in January, February, and March.

The Task Force suggested some reasons for the phenomenon. First, it noted that large disbursements may have been made to "institutions" in these months. Secondly, there may have been significant disbursement of large loans through urban branches in metropolitan regions like Delhi and Chandigarh, "booked as agricultural lending." Thirdly, there may have been window-dressing by banks to meet government targets for credit, deposits, and recovery. The Task Force's findings are revealing:

[13] Data on month-wise disbursement of agricultural credit for other years are not available.

Table 14 *Agricultural credit disbursed by commercial banks as a proportion of all credit disbursed, by month, 2008–09* in per cent

Month	Share of month-wise credit disbursed in total annual credit disbursed
April	1.2
May	2.5
June	5.4
July	6.3
August	4.6
September	9.3
October	5.8
November	7.0
December	11.7
January	11.0
February	11.8
March	23.4
All months	100.0

Source: Ministry of Agriculture (2010).

> The Task Force, while taking note of the doubling of agricultural credit, observed that *it did not reach large numbers of small and marginal farmers* who form the bulk of the farming community and are a critical contributor to the food security of the nation. Substantial loan disbursements by commercial banks take place in March each year. It appears necessary to take a closer look at what is being termed "agricultural" credit, especially by commercial banks. Given, too, that rather large "agricultural" loans were being disbursed in urban centres, a closer look at who is being termed "farmer" is also needed. (*Ibid*., p. xviii)

Increasing Disconnect between Agricultural Credit and Investment in Fixed Capital in Agriculture

Changes in the nature of agricultural credit in the 2000s also led to a decoupling of agricultural credit from fixed capital investment in agriculture. Two features of this phenomenon are worth mentioning.

First, direct agricultural credit is classified into short-term and long-term credit. Short-term agricultural credit refers to crop loans, or credit given directly to cultivators for seasonal agricultural operations. Long-term agricultural credit is credit given directly to cultivators for fixed capital formation in agriculture, towards minor irrigation, reclamation and land development, purchase of tractors and agricultural machinery, plantations, crop loans converted into term loans, and all loans given to producers in allied activities like dairy, fishing, poultry farming, and bee-keeping.

Time-series data on long-term direct credit to agriculture (from commercial banks, cooperatives, and regional rural banks) and gross capital formation in agriculture

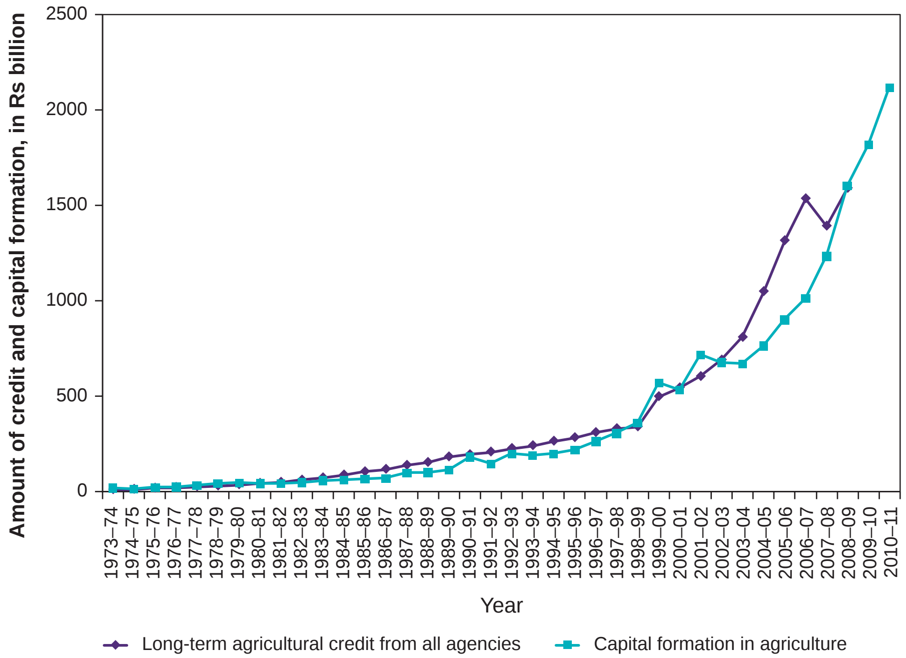

Figure 4 *Amount of long-term credit to agriculture and gross capital formation in agriculture, 1973–74 to 2010–11, deflated with GDP deflator, base year 2004–05* in Rs billion
Source: Reserve Bank of India (RBI), *Handbook of Statistics on Indian Economy*, various issues; Central Statistical Organisation (CSO), *National Accounts Statistics*, various issues.

show a very close association between the two (Figure 4). The data on gross capital formation are taken from the Central Statistical Organisation (CSO) database, and they include both gross fixed capital formation (GFCF, or acquisition of fixed assets) as well as accumulation of stocks. In other words, this refers to the total expenditure on agriculture that is not consumed but is added to the fixed tangible assets in agriculture. Right from the 1970s, long-term credit has moved in tandem with the plot of gross capital formation. Any fall in long-term credit is thus likely to affect capital formation in agriculture.

From 1991–92 to 2010–11, the share of long-term credit (that aids fixed capital investment) in total direct agricultural credit fell and the share of short-term credit in total direct agricultural credit rose (Figure 5).[14] In 1990–91, the share of long-term credit in total agricultural credit was about 75 per cent, which fell to 55.2 per cent in 2004–05 and 39.3 per cent in 2011–12. At the same time, the share of short-term credit in total agricultural credit rose from 24.9 per cent in 1990–91 to 44.8 per cent in 2004–05 and 60.7 per cent in 2011–12. The divergence between credit and investment

[14] These data relate only to commercial banks. However, even if we consider commercial banks, regional rural banks (RRBs), and cooperatives together, the steady decline in the share of long-term credit since the early 1990s comes through. See Chavan (2013).

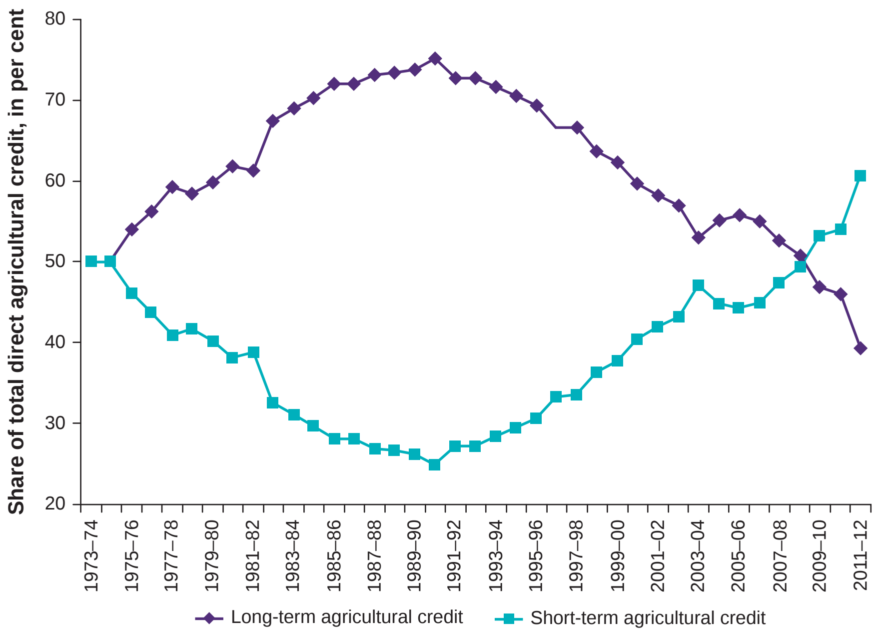

Figure 5 *Share of short-term credit and long-term credit in total direct agricultural credit, commercial banks, 1973–74 to 2010–11* in per cent
Source: Reserve Bank of India (RBI), *Handbook of Statistics on Indian Economy*, various issues.

in agriculture in the 1990s and 2000s is a product of the changing composition of agricultural credit during that period (Chavan 2013).

Secondly, as a result, the difference between agricultural credit and gross capital formation in agriculture was insignificant till 2001–02 (Figure 6). Credit and capital formation were roughly at similar levels, and they also moved together every year. However, after 2001–02, the trends in credit supply and gross capital formation began to diverge. From 2002–03 onwards, agricultural credit grew faster than capital formation in agriculture, and the difference between the amount of agricultural credit and agricultural capital formation widened. In other words, in the 2000s, the portion of credit supplied to agriculture that was transformed into capital formation in agriculture became smaller.[15]

Conclusions

An important feature of agricultural credit after 1991 is its revival in the 2000s following a slowdown in the 1990s. After 2004, the government also announced a scheme to double credit flow to agriculture over a period of three years. We have examined these changes using secondary data on commercial banks.

[15] See also Ramakumar (2012).

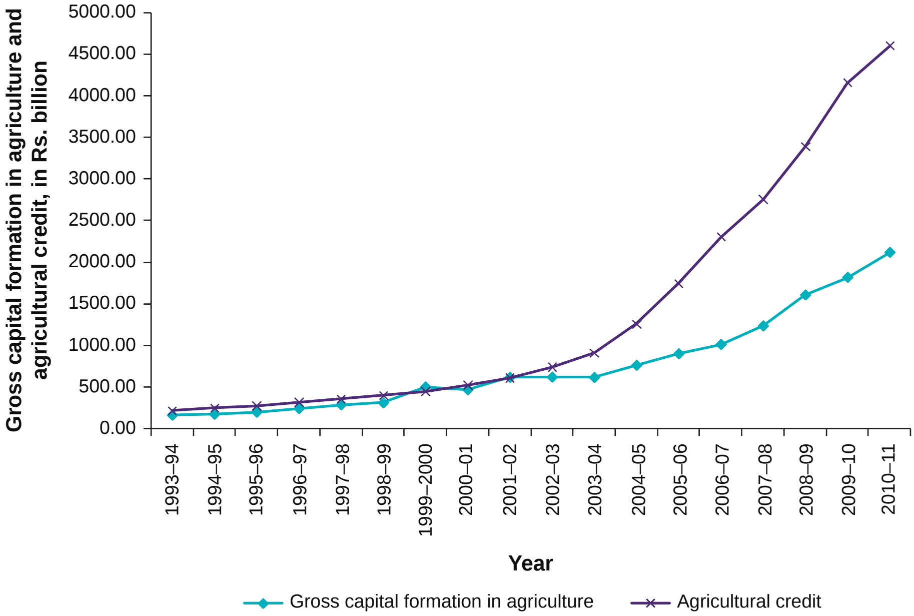

Figure 6 *Trends in gross capital formation in agriculture and allied sectors, and agricultural credit, at current prices, 1993–94 to 2010–11,* in Rs billion

Source: Compiled from various CSO and RBI reports.

There were two major components of the revival of agricultural credit in the 2000s: an increase in the number of rural bank branches, and a rise in the growth rate of agricultural credit flow. About 922 rural bank branches were closed down between 1995 and 2005, and more than 5,000 new rural bank branches were opened between 2005 and 2012. The growth rate of agricultural credit between 2001 and 2011 was 17.8 per cent per annum, which was significantly higher than the corresponding growth rate between 1991 and 2001. Our analysis shows that the revival of growth of agricultural credit began in the early 2000s. The growth was, however, marked by inequality with respect to the beneficiaries of that revival. The Task Force on Credit-Related Issues of Farmers concluded in 2010 that the doubling of agricultural credit "did not reach large numbers of small and marginal farmers;" it further said that "a closer look at who is being termed 'farmer' is also needed" (Ministry of Agriculture 2010).

We recapitulate our six main findings. First, even though the number of rural bank branches rose after 2005, that growth did not keep pace with the growth of the rural population. The rural population per bank branch in 2011 was higher than in 1990 or 1995. The reduction of total population per branch was faster than the reduction of rural population per branch.

Secondly, about one-fourth of the increase in agricultural credit in the 2000s was on account of an increase in indirect finance. The growth of indirect finance was more pronounced in the western, northern, and eastern regions of the country than in other regions. Such growth did not originate from a growth in the traditional components of indirect finance, such as loans for the supply of inputs and power to agriculture. On the contrary, because the coverage of the term "indirect finance" had been increased to include many activities that did not previously come within its ambit, the expansion of indirect credit was in new areas altogether. From the late 1990s onwards, changes in the definition of indirect finance involved (i) the addition of new forms of financing commercial, export-oriented, and capital-intensive agriculture; (ii) raising the credit limit of many existing forms of indirect financing; and (iii) bringing loans given to corporates and partnership groups into the ambit of agricultural credit.

Thirdly, a major driver of growth in agricultural credit in the 2000s was an increase in the number of big individual loans advanced by banks. In fact, the share in direct agricultural credit of loans of less than Rs 20,000 each fell from 92.2 per cent in 1990 to just 48 per cent in 2011. On the other hand, the corresponding share for loans that were more than Rs 1 million (Rs 10 lakh) each increased from just about 4 per cent in 1990 to about 23 per cent in 2011. Further, very large-size loans, having a credit limit of Rs 100 million (Rs 10 crore), increased in terms of their share in direct agricultural credit from just 0.3 per cent in 1990 to 11 per cent in 2011. Clearly, these large loans were advanced primarily to finance the new activities – such as large agribusiness-oriented enterprises – that had been added to the definitions of direct and indirect advances after the late 1990s.

The part played by large loans in direct credit to agriculture also grew. Taken together, the share in total direct credit of loans less than Rs 200,000 (Rs 2 lakh) each fell from 92.2 per cent in 1990 to 78.5 per cent in 2000 and 48 per cent in 2011. In other words, the bulk of loans advanced for agriculture moved away from small, marginal, or medium farmers, and towards large business interests.

Fourthly, there was a substantial increase in the share of agricultural credit outstanding from urban and metropolitan branches of banks in the 2000s. In 2011, about 33 per cent of total agricultural credit and about 26 per cent of direct agricultural credit came from bank branches located in urban or metropolitan centres. At the same time, about 67 per cent of indirect finance to agriculture was from branches located in urban or metropolitan centres. Considered together with the evidence on large-size loans, this makes it even more clear that agricultural credit was directed away from the rural areas.

The supply of agricultural credit from urban or metropolitan bank branches was highest in West Bengal, Maharashtra, and Tamil Nadu. In West Bengal, about 55 per cent of total agricultural credit was advanced by urban or metropolitan branches. The share of direct credit to agriculture from urban or metropolitan branches was about 53 per cent in West Bengal, about 41 per cent in Maharashtra, and about 29 per cent in Tamil Nadu.

Fifthly, month-wise disbursement data show that about 46 per cent of agricultural credit in 2008–09 were disbursed in the months January to March, which are not the normal periods of borrowal by farmers. About 23 per cent of credit was disbursed in the month of March alone.

Sixthly, investment in fixed capital is closely associated with the disbursement of long-term loans to agriculture. However, after 1991, there was a sharp fall in the share of long-term agricultural loans, and a concomitant rise in the share of short-term agricultural loans, in total agricultural credit. Consequently, the portion of agricultural credit used for fixed capital formation in agriculture became smaller.

To conclude, the major beneficiaries of the revival in agricultural credit in the 2000s were corporate groups and other organisations indirectly involved in agricultural production, and not farmers who were direct producers in agriculture. Agricultural credit in the 2000s moved away from production *per se* into post-production functions. In the 2000s, banks increasingly financed activities that aid the growth of specific sub-sectors within agriculture that are large-scale, commercial, capital-intensive, and export-oriented. These activities were promoted in the 1990s and 2000s as part of a conscious shift of public policy in agriculture.

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