Credit and Capital Formation in Agriculture: A growing disconnect

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Like all other sectors, agricultural credit supports agricultural production through two channels: meeting short-term working capital needs and long-term investment needs in the sector. It is estimated that about 95 per cent of the agricultural machinery in India is procured with the help of loans from formal credit institutions (Sarkar, 2013). Yet, the recent decades have seen a growing disconnect between credit and investment in the Indian agriculture. This note analyses the trends in credit to agriculture from all formal institutions and capital formation in agriculture, and discusses the possible reasons behind such a disconnect.

Composition of Agricultural Credit

There are three major formal institutions providing agricultural credit in India: commercial banks, Regional Rural Banks (RRBs) and rural cooperatives. Commercial banks entered the field of agricultural credit in a major way following their nationalisation in 1969.[1] RRBs were created as a public banking institution in 1974 to cater to the credit needs of marginalised sections of rural population including small and marginal farmers. Both commercial banks and RRBs are guided by priority sector lending policy of providing credit to various deserving sectors/sections including agriculture and allied activities.

As per the priority sector lending norms, commercial banks and RRBs are mandated to direct at least 40 per cent of their total credit to various priority sectors, which includes agriculture and allied activities and Micro and Small Enterprises (MSE), among others.[2] Within the total priority sector credit, a sub-target of 18 per cent is fixed for agriculture and allied activities for commercial banks. Such a policy of priority sector lending does not apply to rural cooperatives. However, since rural cooperatives primarily cater to the credit needs in rural areas, agriculture figures as an important part of their loan portfolio.

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* The views expressed in the note are personal views of the author and do not represent the views of the organisation to which she is affiliated.

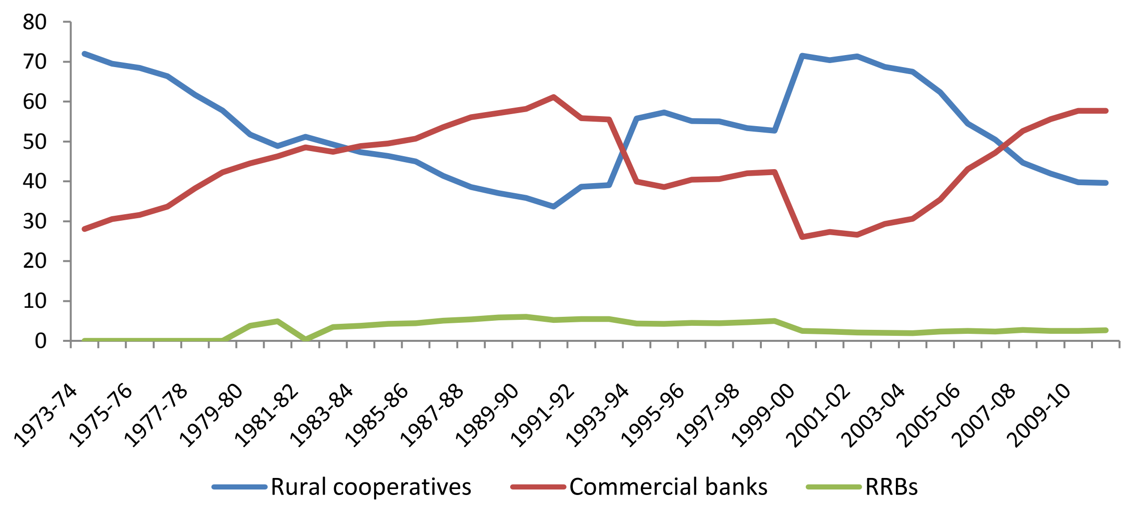
[1] Major commercial banks in India were nationalised in two phases: 14 banks in 1969 and 6 in 1980. Following the first phase of nationalisation, priority sector targets were made applicable to commercial banks in 1972, which resulted in their foray into agricultural credit.

[2] The other sectors include export credit, housing, education and "weaker sections" (including small and marginal farmers, women beneficiaries, Scheduled Castes/Tribes, etc.). The percentages for priority sector credit are worked with respect to adjusted net bank credit (or off-balance sheet exposure) of banks, whichever is higher; for the definition of adjusted net bank credit, see RBI Master Circular on Lending to Priority Sectors - July 1, 2012 at <www.rbi.org.in>.

Since bank nationalisation, there has been a steady rise in the share of commercial banks in the supply agricultural credit in the country.[3] In the 1990s, which was the decade of initiation of economic reforms and application of prudential norms, the operation of commercial banks in rural areas witnessed a slowdown.[4] There was a significant reduction in the number of rural branches following the liberalisation of the branch licensing policy.[5] The share of commercial banks in agricultural credit also showed a fall during the decade of 1990s.

Over the 2000s, there was a re-affirmed commitment to the policy of "financial inclusion" and an emphasis on reviving the supply of agricultural credit following reports about growing agrarian indebtedness to informal sources and the related distress.[6] During this decade, there was a perceptible increase in the growth of agricultural credit in general, agricultural credit from commercial banks in particular.[7] By 2010-11, the share of commercial banks in agricultural credit had risen to about 57 per cent, very close to its level in 1990-91 (Figure 1). In that year, cooperatives accounted for 40 per cent of the remaining agricultural credit and RRBs had a negligible share of about 3 per cent.[8]

Figure 1: Share of various institutions in total agricultural credit



Source: Handbook of Statistics on Indian Economy, various issues.

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[3] In this note, agricultural credit refers to outstanding credit to agriculture and allied activities, unless otherwise specified.
[4] See Shetty (2005), Chavan (2005), GoI (2007).
[5] *Ibid.*, Subbarao (2012).
[6] See Chavan (2013) who describes the phase after 2004 as the "Phase of financial inclusion and Reviving Agricultural Credit". She argues this to be the third phase in terms of rates of saving/investments and various banking penetration indicators following the "phase of bank nationalisation" and "phase of financial liberalisation".
[7] *Ibid.*
[8] See Subbarao (2012) for a similar point.

Agricultural credit refers to direct (credit given directly to cultivators/producers in allied activities) and indirect credit (credit given to cultivators/others producers through an intermediary). Within the overall target of 18 per cent fixed for agriculture and allied activities in the case of commercial banks, it is stipulated that indirect agricultural credit cannot account for more than 25 per cent of total agricultural credit (4.5 per cent total bank credit) in order to ensure that banks give a greater thrust on lending directly to cultivators.[9] However, the portion of indirect agricultural credit exceeding the limit of 25 per cent is considered as part of priority sector credit and helps in meeting the overall priority sector target of 40 per cent. Hence, notwithstanding the upper limit, there is an incentive for banks to give indirect credit to agriculture.

Composition of Capital Formation in Agriculture

There are two major sources of capital formation in the agriculture: private (individuals/households and private corporate sector) and public agencies. In the recent decades, capital formation in the sector has acquired a largely private character. Capital formation from private sources accounted for about 84 per cent of total capital formation in the sector in 2011. Following the Green Revolution, there was a steady rise in the share of capital formation from public institutions. During the 1980s, the average share of public institutions was placed at its highest of 41.7 per cent. However, over the next two decades, there was a falling trend in this share; by 2011, it had declined to 16 per cent (Table 1). The increasingly private character of capital formation in agriculture in the recent years has meant that formal credit assumes a greater role in financing such investment.

Table 1: Share of public and private sectors in total capital formation in agriculture and allied activities

Sector	1970s	1980s	1990s	2000s	2011
Private sector	66.5	58.3	76.1	81.1	84.0
Public sector	33.5	41.7	23.9	18.9	16.3

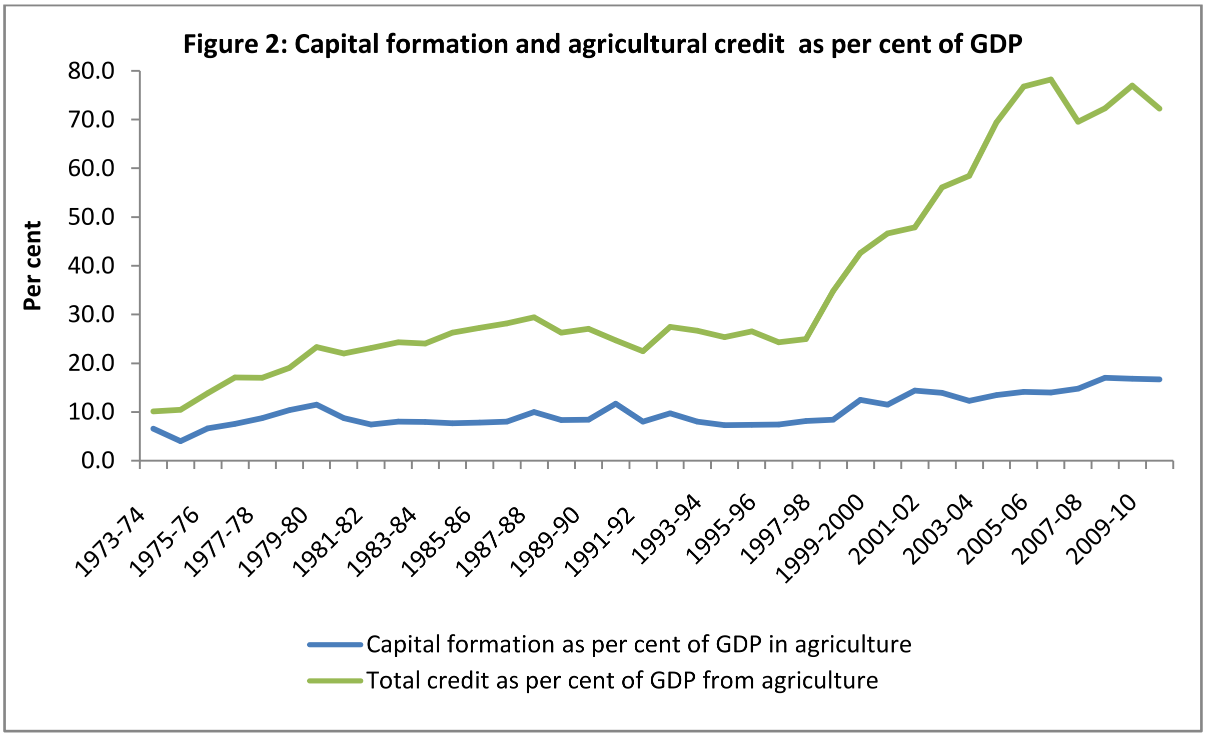
Source: National Accounts Statistics, CSO.

Association between Credit and Capital Formation in Agriculture

The ratio of agricultural credit to agricultural Gross Domestic Product (GDP) has historically been higher than the rate of capital formation in agriculture (ratio of gross capital formation

[9] See RBI Master Circular on Lending to Priority Sectors - July 1, 2012 at <www.rbi.org.in>.

in agriculture to agricultural GDP). However, there has been a growing divergence between these two series over time, more so since the late-1990s. By 2010-11, agricultural credit as per cent of agricultural GDP was 72.3 per cent, while the rate of capital formation in agriculture had stagnated at 16.7 per cent (Figure 2).



Source: National Accounts Statistics, Handbook of Statistics on Indian Economy, various issues

In certain ways, this divergence can be associated with the changing composition of agricultural credit in the recent decades; the changes can be illustrated as follows:

1. **Increasing share of indirect credit in total agricultural credit -** There have been a number of definitional changes in direct and indirect agricultural credit as part of the priority sector guidelines since late-1990s.[10] In particular, these changes have resulted in widening of the scope of indirect credit by bringing newer activities in its ambit, and by increasing the credit limits fixed for the activities already included.[11] Partly as a fallout of the definitional changes, the share of indirect credit in total agricultural credit more than doubled from 21.5 per cent in 1991-92 to 48.1 per cent by 2007-08 (Figure 3).

[10] See Ramakumar and Chavan (2007).
[11] *Ibid.*

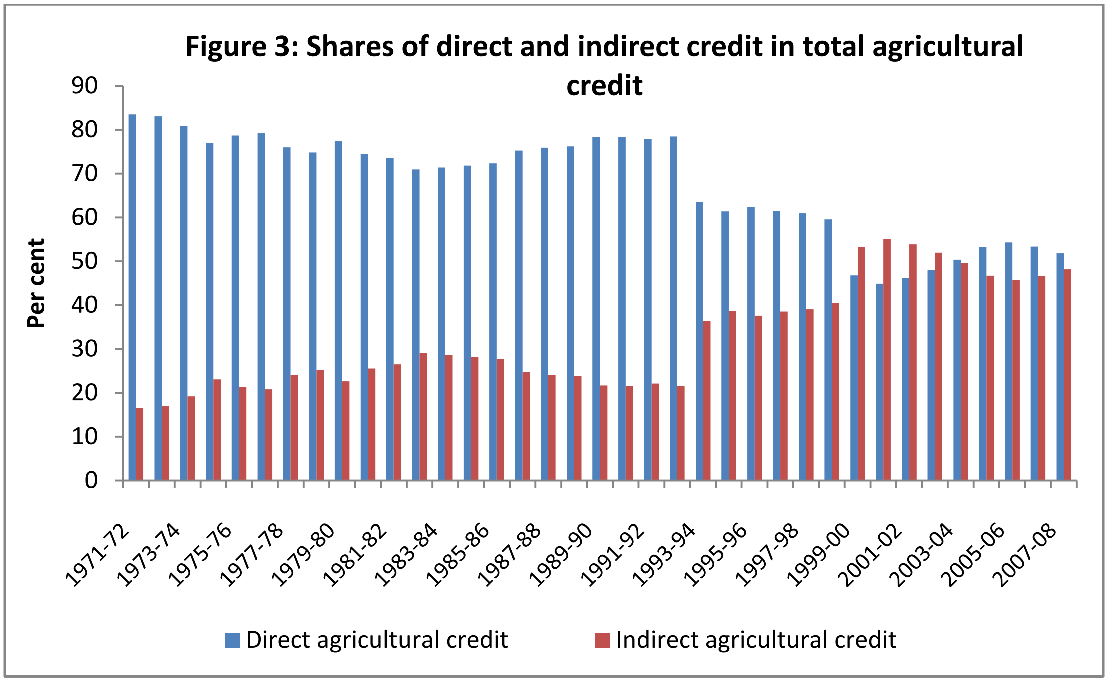


Figure 3: Shares of direct and indirect credit in total agricultural credit

Note: 1. Data refer to agricultural credit from commercial banks, RRBs and rural cooperatives taken together.
2. Given the delayed available of data on cooperatives, the data given in the chart terminate at 2007-08.

Source: Handbook of Statistics on Indian Economy, various issues.

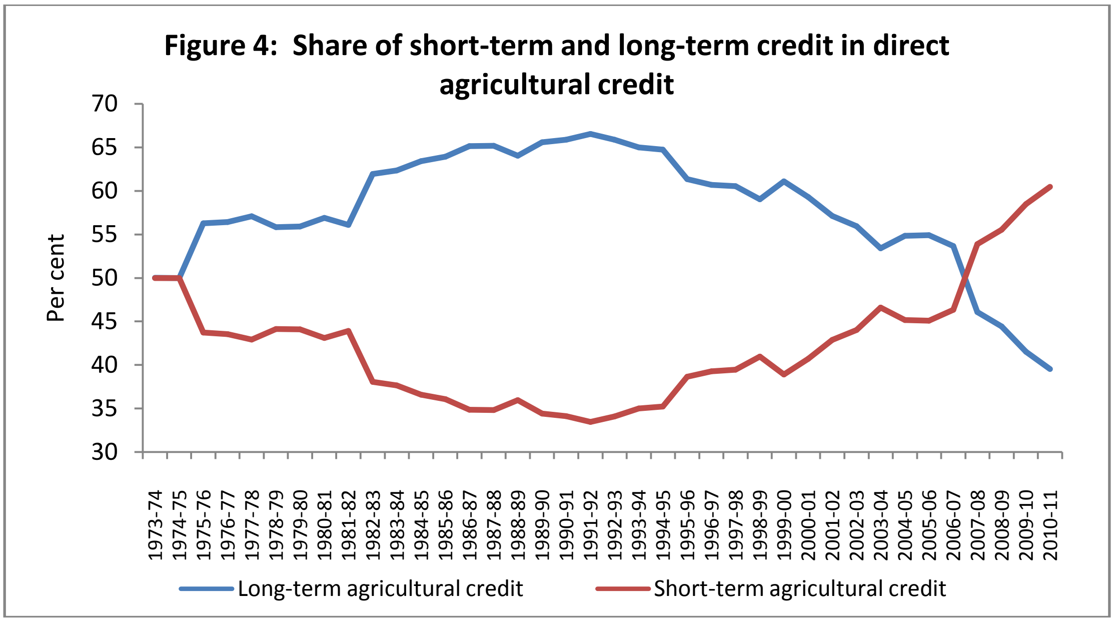
As per the latest guidelines, indirect credit includes: (i) loans given to corporates, partnership firms, farmers' cooperatives engaged in agriculture and allied activities of more than Rs. 2 crore and loans to Primary Agricultural Credit Societies (PACS)/Farmers' Service Societies (FSS), (ii) loans to input dealers, (iii) loans for agri-business and agri-clinics, (iv) loans for storage units/warehouses/godowns, (v) loans to Micro Finance Institutions, Non-Governmental Organisations and RRBs for on lending to agriculture and allied activities. As evident from the definition, a part of indirect credit may result in capital formation in agriculture in the form of storage units, warehouses and agri-clinics. However, it is difficult to ascertain the exact proportion of the long-term component in indirect credit based on the available information.[12]

[12] The available information, however, seems to suggest a decline in the share of this long-term component of indirect credit in the recent years. In 2010-11, about 42 per cent of indirect credit was towards "other types of indirect credit" which included (i) loans for agri-business and agri-clinics, (ii) loans for storage/warehouses/godowns, (iii) loans to input dealers, (iv) loans to Micro Finance Institutions, Non-Governmental Organisations and RRBs for onlending to agriculture and allied activities in 2010-11. Loans given to corporates, partnership firms, farmers' cooperatives engaged in agriculture and allied activities accounted for the remaining 58 per cent; see Handbook of Statistics on India Economy, 2011-12 along with the definition of indirect credit as given in the RBI Master Circular on Lending to Priority Sectors, July 1, 2012. Since the

A decline in the share of direct credit can have adverse implications for long-term investments in agriculture by cultivators, depending on the composition of direct credit. The changes in the composition of direct credit are discussed in the following point.

2. **Decline in the share of long-term credit in direct agricultural credit** – Based on tenure, direct agricultural credit is classified into short-term and long-term credit. Short-term agricultural credit refers to credit given directly to cultivators for seasonal agricultural operations/crop loans. Long-term agricultural credit indicates credit given directly to cultivators/producers in allied activities for minor irrigation, reclamation and land development, tractors and agricultural machinery, plantations, crop loans converted into term loans, and all loans given to allied activities including dairying, fishing, poultry, beekeeping and others.

   Disquietingly, there has been a fall in the share of long-term credit in total agricultural credit since the early-1990s and the fall has precipitated in the 2000s. Throughout the 1970s and 1980s, the share of long-term agricultural credit was on a rise reaching a high of 66 per cent by 1991-92. By 2010-11, it had fallen to 39.5 per cent (Figure 4).



Source: Handbook of Statistics on Indian Economy, various issues.

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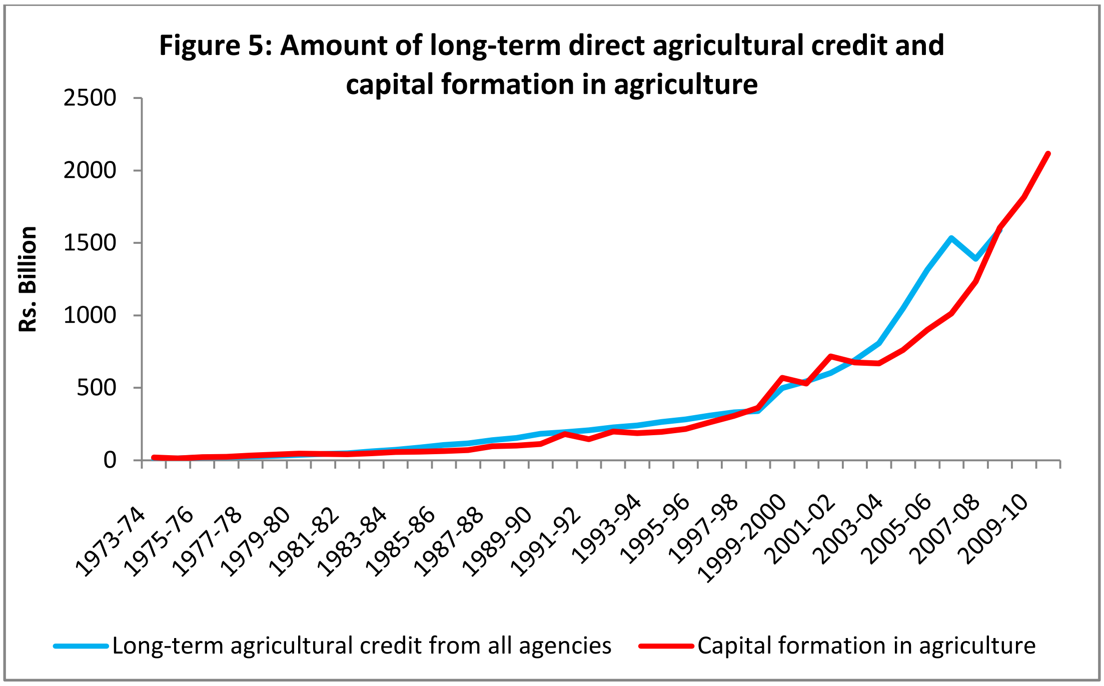
inclusion of loans to corporates as part of indirect agricultural credit in 2007-08, there has been a phenomenal rise in the share of this segment from only about 1 per cent of total indirect credit in 2007-08 to 58 per cent in 2010-11. Concomitantly, the share of "other types of indirect credit", which is likely to include a major portion of the long-term component of indirect credit has posted a fall.

Long-term (direct) agricultural credit exactly coincides with the amount of capital formation in agriculture; both series show a matching trend since the 1970s (Figure 5). Given that long-term agricultural has such a close association with capital formation in agriculture, the fall in its share has direct implications for investment in agriculture.



Source: Handbook of Statistics on Indian Economy, National Accounts Statistics, various issues.

3. **Weakening of long-term rural cooperatives** – The long-term arm of rural credit cooperatives namely, State and Primary Cooperative Agricultural and Rural Development Banks, was created with the intention of supporting investments in agriculture. With the introduction of prudential norms, public sector commercial banks, RRBs, and very recently, upper tiers of short-term credit cooperatives have been provided capital support by the Government. However, such capital support is still awaited in the case of long-term cooperatives.[13] As a result, the financial health of long-term credit cooperatives and consequently, their lending has been adversely affected in the 2000s (Table 2).[14]

[13] See Sen (2005), Satish (2007) and RBI (2012) for an illustration of the delays in recapitalising rural cooperatives, particularly long-term rural cooperatives.
[14] Also see RBI (2012) on this point.

Table 2: Rate of growth of short-term and long-term cooperative credit to agriculture, in per cent per annum

Sector	Short-term cooperative credit	Long-term cooperative credit
1974-75=1979-80	6.5	10.8
1980-81=1989-90	2.2	1.2
1990-91=1999-2000	4.2	8.7
2000-01=2009-10	6.6	-7.0

Source: Handbook of Statistics on Indian Economy, various issues.

Note: Rate of growth refers to exponential growth of cooperative credit deflated using GDP deflators (Base 2004-05).

The weakening of long-term rural cooperatives is partly responsible for the fall in the share of cooperatives in total agricultural credit in the 2000s. This is because long-term credit accounts for almost half of the total cooperative credit (Table 3 read with Figure 1).

Table 3: Share of short-term and long-term credit in total cooperative credit to agriculture, in per cent

Sector	Short-term cooperative credit	Long-term cooperative credit
1974-75=1979-80	45.7	54.3
1980-81=1989-90	45.5	54.5
1990-91=1999-2000	44.8	55.2
2000-01=2009-10	52.8	47.2

Source: Handbook of Statistics on Indian Economy, various issues.

Concluding Observations

The rate of savings and investment are two telling indicators of the extent of financial intermediation in any economy. Banks transform the deposits mobilised from surplus sectors into credit towards the deficit sectors. Following the nationalisation of banks, the rates of savings and investment in the Indian economy picked up rapidly; during just a decade from 1969 to 1979, the rate of savings increased sharply from 12 per cent to 22 per cent, while the rate of investment rose from 13 per cent to 22 per cent.[15]

This was also the period, when the rate of capital formation in Indian agriculture witnessed a steady rise. Over the following decades, however, capital formation in agriculture showed

[15] Interestingly, despite the criticism about the policy of bank nationalisation and other statutory mandates being financially "repressive", studies did not find any major signs of repression from the savings and investments rates in the country; see Chavan (2013) who discusses the findings of Joshi and Little (1994).

stagnation, if not decline. The second phase of increase in the rate of capital formation in Indian agriculture was in the 2000s, when the rate rose from 8 per cent in 1997-98 to 16.7 per cent by 2010-11.

Interestingly, both these phases of increase in the rate of capital formation in Indian agriculture were periods when banking penetration in rural areas increased significantly and banks gave focused attention to meeting agricultural credit needs. The first was following bank nationalisation and the second phase coincided with the policy of financial inclusion and reviving agricultural credit.[16]

Yet, there were differences in these two phases in terms of the distribution of agricultural credit. These differences were evident from a greater emphasis on (a) indirect agricultural credit over direct agricultural credit (b) large-sized agricultural loans and loans to large cultivators over small-sized loans made to small and marginal cultivators (c) agricultural loans made in urban/metropolitan areas over rural/semi-urban areas in the 2000s as compared to the 1970s.[17]

This note brought out another difference in the composition of agricultural credit between these two phases: a greater emphasis on short-term agricultural credit over long-term credit in the 2000s. On account of the tenure-wise shift in the composition of agricultural credit, there were signs of a growing disconnect between agricultural credit and capital formation in the Indian agriculture in the 2000s.

In some ways, the growing divergence between these two series also relates to the shift in favour of indirect agricultural credit in the recent decades. Further, since long-term cooperatives are instrumental in financing investment in agriculture, a slowdown in their credit operations in the recent decades also adversely affected the long-term investment credit to agriculture.

As investment bears a close association with economic growth, the negligence of long-term agricultural credit may turn out to be costly for the agricultural growth in the years to come. The recapitalisation of long-term credit cooperatives could be one way of reviving these institutions and providing the necessary boost to long-term credit to agriculture. Further, a greater thrust on giving credit directly to cultivators can also help in improving the supply of long-term credit to cultivators.

[16] Chavan (2013).
[17] See Chavan (2013) and Ramakumar and Chavan (2007).

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**** This article was originally published in Social Scientist, Vol. 41, Issue 6, Sep-Oct 2013.**