

IMPACT OF REVOLVING CASH CREDIT TO FARMERS
ON PROFITS OF
DISTRICT CENTRAL COOPERATIVE BANKS IN PUNJAB

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Abstract

Cooperatives are an important form of business organisations all over the world. In post-independence era cooperatives were visualised to emerge as a strong balancing sector between the private and public sectors. Cooperative credit institutions have played an important, fair and significant role in overcoming the problems of rural credit. Rural cooperative credit structure is an important and integral part of Indian banking system. It has played a decisive role in economic development of India especially of rural economy. A well-defined rural credit system has already been developed to meet agriculture production oriented credit needs. However for other socio consumption needs farmers are still dependent upon informal credit sources. To fill this credit gap cooperative banks of Punjab have taken a lead in 1997-98 and have started providing Revolving Cash Credit Facility (RCCF) to farmers. This study makes an attempt to assess the impact of this new product line (RCCF) on profits of DCCBs. In this article yield rate of RCCF, yield rate on total loans, differential yield rate and differential earnings have been studied in selected district central cooperative banks (DCCBs) of Punjab (India) to know its impact on profits. Some measures have been suggested to strengthen it further.

Important words: DCCBs, RCCF, NPAs, Differential Earnings, Yield Rate

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Cooperatives are an important form of business organisations all over the world. Cooperatives believe in philosophy of 'Production by Masses' instead of 'Mass Production' and are supposed to involve masses of the country in production. In post-independence era cooperatives were visualised to emerge as a strong balancing sector between the private and public sectors. Cooperatives have made significant qualitative and quantitative improvements in these years. Cooperative credit institutions have played an important, fair and significant role in overcoming the problems of rural credit. A well-defined institutional system had already been developed to take care of credit needs of farmers for agriculture production but no such arrangement was there for their social needs. Therefore, a need for some institutional finance to meet their socio-economic needs was felt for a long time. Cooperative credit system of Punjab took a lead on this front and introduced revolving cash credit facility to farmers in 1997 to meet their socio-economic needs.

The scheme envisages providing cash credit limit to the farmers against the mortgage of their land for their socio-economic credit requirements. At the initial stage financing limit was ₹ 10 thousand per acre of landholding and maximum to ₹ 1lakh. The scale of finance has been revised many times and in 2011-12 limit has been increased to ₹ 1.50 lakh per acre subject to a maximum of ₹ 15 lakh. The rate of interest charged on RCCF, presently is 11 percent if the limit amount is up to ₹ 3 lakh and 11.5 percent in case limit amount is more than ₹ 3 lakh. More than fifteen years has lapsed since the inception of RCCF, the innovative finance facility to farmers for their socio-economic needs by cooperative banks of Punjab. So here an attempt had been made to study the impact of this scheme on the profits of DCCBs.

Objectives of the Study

1. To examine the impact of Revolving Cash Credit (Farmers) scheme on profits of District Central Cooperative Banks in Punjab.
2. To examine the impact of provision created for RCCF NPAs on the profits of District Central Cooperative Banks in Punjab.

Research Methodology

Punjab has 20 district central cooperative banks. Six DCCBs, i.e. Fatehgarh Sahib, Faridkot, Kapurthala, Ludhiana Fazilka and Amritsar have been selected for studied on stratified random sampling basis. Secondary data have been used to conduct the study. Study covered a period of ten years i.e. 2002-03 to 2011 -12. Simple statistical techniques such as percentages, averages and

weighted averages have been used for data analysis. Being a time series data, advanced statistical tool, such as, Compound Growth Rate was applied to analyze the data to arrive at meaningful conclusions. t-value * significant at 5 %, ** significant at 1% .

Review of literature:

Sridharan, et. al (1976), had taken average owned fund, average deposits, average amount loaned per member, borrowings per member & percentage of borrowers to total members as four factors influencing the net profits of the cooperative societies. It was found that average deposit per member was highly correlated with net profits and percentage of borrowers to total members had the least correlation. The other factors don't influence the net profits significantly. Net profits were essential for successful business functioning of credit cooperative societies and for this; study suggested that deposit mobilization campaigns were essential.

Kohinkar, et.al (1982), found that borrowings had created a positive impact on the economy of farmers and this impact is more on those farmers who borrowed regularly than those who borrowed occasionally. The borrower group were better educated and had better welfare conditions than non-borrower group. The borrowers had positive attitude towards adoption of modern technology.

Mehrotra (1987), found the relationship between institutional credit i.e. credit given by PACSs and agricultural growth in the state of Rajasthan. Short term agriculture credit needs and its impact on income was also studied. It was concluded that credit in the form of inputs like fertilizers, irrigation facilities and improved mechanical devices had positively affect the agriculture growth.

Reddy (1992), concluded that political interference was the major reason for increase in overdues and political leaders sabotage the cooperative machinery. Cooperative banks lend liberally and postpone recovery due to political pressures and waiving of loan by government further increase the quantum of overdues.

Ramamoorthy (1997), revealed that new economic order had shifted the banks towards such a banking system which is market oriented. The results revealed that volume of credit, provisioning for loan losses, interest rate movements affect the profitability of a bank. He

suggested that motivation, training and leadership of human resources can improve the productivity and profitability of the banks.

Singh, and Sukhmani, (2005), studied the trend and comparative performance of various retail loans issued by DCCBs and PSCB during 2000 to 2005. It was found that RCCF proved very successful scheme of credit in initial years but credit under the scheme was decreasing due to competition from commercial banks and high rate of interest charged by the DCCBs.

Singh & Singh, (2006), examined the funds management in DCCBs of Punjab with specific reference to the analysis of financial margin. It was noted that a higher proportion of own funds and the recovery of previous loan had increased the margin of central cooperative banks and they had a larger provision for non- performing assets.

Chander, and Chandel, (2010), examined the financial viability, efficiency and performance of four DCCBs operating in Gurgaon division of Haryana. The financial parameters taken in study were profitability, liquidity, efficiency, solvency, risk and bankruptcy. The results revealed that four DCCBs with approximately fifty branches had not performed well on all financial parameters.

Singh, B.(2011), revealed that ROE had increased and Jalandhar CCB had remained leading performer. ROA had same trend. As per the conceptual approach of ROA all banks showed a positive trend except one. Assets utilization had showed a positive change whereas interest income to total income had reduced in all the selected banks.

Singh, G. and Sukhmani, (2011), studied the impact of diversification of cooperative banks (from granting farm sector loans to non- farm sector loans) on productivity and profitability of banks. The results revealed that productivity had increased whereas profitability had shown a negative trend. It was suggested by the authors that bank should impart extensive training in case of new banking operations and practice to their manpower for better professional results.

The foremost objective of any business organisation is to sustain and be in existence. For this earnings of profit is must, because profits are necessary to survive and grow over a period of time. 'Profit is the ultimate output of a company, and it will have no future if it fails to make sufficient profits' (Kalra, 2013). 'Cooperative banks have been organized with a specific purpose of social welfare. In these organizations, instead of profit maximization, it is maximization of member's satisfaction which is considered to be of primary importance' (Bharali, 1987). 'For a

long time profit was considered a forbidden word for cooperative banks. These banks were established as a tool of government policy to meet certain social obligations. Therefore, their performance was measured in terms of task achievement, i.e., loan advanced to targeted borrowers and recovery thereof. But this is no longer true' (Sukhmani, 2011). The advent of new economic policy and emergence of a competitive financial scenario, has led to greater competition among banks. Cooperative banks have to earn profit to survive and be able to meet their social commitments and to compete in the market. Hence in this study an attempt has been made to analyze the impact of RCCF operations on profits of the DCCBs.

To analyse the impact of RCCF upon profits of concerned DCCBs, interest earned and cost paid to earn it is crucial to study. Data regarding interest earned by this particular activity was easily available with these DCCBs but no bank has the separate record of cost paid for this specific loan activity. DCCBs had financed their RCCF operations from their own funds or from refinanced facility of PSCB. Funds kitty of every DCCB comprises of various sources of funds such as share capital, reserves, deposits and borrowings. Cost of each source of funds differs and composition of these sources of funds remains fluctuating on day to day basis.

These DCCBs usually return high cost borrowings at first instance. A common practice in these banks is to calculate weighted average cost of funds and to keep it at minimum with a favourable mix of sources of funds.

We have tried to analyse impact of RCCF on profits as follow:

And assumed DCCBs have financed RCCF from its own sources

Differential earnings have been calculated as follows:

Differential Yield = Rate of Interest (Yield) on RCCF - Weighted Average Yield

Differential Earnings = RCCF Outstanding \times Differential Yield

Differential earnings are excess income earned by amount of funds employed in RCCF which would otherwise have been earned in normal course of business if this amount had not been employed in RCCF.

Study has been divided in two parts. In part one differential earnings have been discussed. In second part the impact of NPAs provisions on profit has been analysed.

I Trends in Differential Earnings from RCCF in Selected District Central Cooperatives Banks in Punjab

The trends in differential earnings due to RCCF operations in the selected district central cooperative banks in Punjab have been worked out for the period from 2000-01 to 2011-12. Ratio of differential earnings from RCCF to net profit was arrived at in percentage terms. The results have been discussed hereunder:

(i) The Fatehgarh Sahib Central Cooperative Bank Limited, Fatehgarh Sahib

Table 1: Differential Earnings on RCCF in Fatehgarh Sahib CCB Ltd.
(□ in Lakh)

Year	RCCF O/S	Yield Rate on RCCF (%)	Yield Rate on Total Loan (%)	Differential Yield Rate (%)	Differential Earnings	Net Profit	Differential Earnings: Net Profit (%)
2000-01	2881.03	17.00	12.64	4.36	125.61	142.57	88.11
2001-02	3565.84	14.00	12.54	1.46	52.06	202.67	25.69
2002-03	3899.41	13.00	11.62	1.38	53.81	283.87	18.96
2003-04	3957.20	12.00	11.10	0.90	35.61	331.86	10.73
2004-05	3747.92	11.00	10.01	0.99	37.10	418.99	8.86
2005-06	3883.03	10.00	9.04	0.96	37.28	363.25	10.26
2006-07	4655.86	10.50	7.18	3.32	154.57	23.98	644.60
2007-08	7650.96	11.00	7.56	3.44	263.19	204.14	128.93
2008-09	9112.59	11.00	7.59	3.41	310.74	14.61	2126.89
2009-10	10842.70	11.00	7.85	3.15	341.55	129.87	262.99
2010-11	11506.00	11.50	8.11	3.39	390.05	149.53	260.85
2011-12	12479.10	11.50	8.26	3.24	404.32	168.32	240.21
Average	6515.14	11.96	9.46	2.50	183.83	202.81	318.92
C.V.	54.87	16.09	21.52	49.95	80.67	62.38	187.64
C.G.R.	15.14	-2.63	-4.88	7.89	24.23	-8.97	36.47
t-value	8.90**	2.81*	5.50**	1.55	3.53**	1.14	2.16

Source: Compiled from Various Reports of Central Cooperative Banks of Punjab

Table 1 shows that yield rate on RCCF declined from 17.00 percent in 2000-01, to 10.00 percent in 2005-06 and increased to 11.50 percent in 2011-12. The trend came to be significantly negative

(-2.63%). The yield rate on total loan declined from 12.64 percent in 2000-01 to 7.18 percent in 2006-07 and again increased to 8.26 percent in 2011-12. The trend was significantly negative (-4.88%). The differential yield rate on RCCF outstanding declined from 4.36 percent in 2000-01 to 0.96 percent in 2005-06 and increased to 3.44 percent in 2007-08. It was 3.24 percent in 2011-12. Declining compound growth rate of yield rate in RCCF was 2.63 percent as compared to 4.88 percent in case of yield rate on total loan. As a result differential yield rate had a positive compound growth rate of 7.89 percent. But it came to be non-significant due to instability in the differential yield rate on RCCF during the period of the study. The differential earnings from RCCF was ₹ 125.61 lacs in 2000-01 which declined to ₹ 37.28 lakh in 2005-06 due to decrease in the rate of interest on RCCF but it increased to ₹ 404.32 lakh in 2011-12. The differential earnings increased at a significant rate of 24.23 percent compounded annually depicting a positive trend during the period of the study. **The Fatehgarh Sahib CCB was able to generate average excessive yield of ₹ 183.83 lakh per annum due to growing share of RCCF in total loan.**

Table 1 further indicates that net profit in CCB Fatehgarh Sahib increased from ₹ 142.57 lakh in 2000-01 to ₹ 418.99 lakh in 2004-05 and decreased to ₹ 23.98 lakh in 2006-07. After witnessing a decline up to ₹ 14.61 lakh in 2008-09 it then increased to ₹ 168.32 lakh in 2011-12. It is interesting to note that if this differential earnings was not there then DCCB might have suffered net losses in last six years of study i.e. from 2007 to 2012. The profit of ₹ 23.98 lakh would have turned into a loss of ₹ 130.59 lakh in 2006-07 and the profit of ₹ 14.61 lakh would have turned into a loss of ₹ 286.13 lakh in 2008-09. But overall trend was negative and non-significant. The differential earnings from RCCF was 88.11 percent of the net profit of the bank in 2000-01 which had declined to 10.26 percent in 2005-06 and then increased to as high as 2126.89 percent in 2008-09 when net profit of the bank was only ₹ 14.61 lakh. The differential earnings from RCCF were 240.21 percent of the net profit in 2011-12. The growth rate of differential earnings from RCCF as percent of net profit came to be 36.47 percent compounded annually, but turned to be non-significant due to wide fluctuations.

(ii) The Ludhiana Central Cooperative Bank Limited, Ludhiana

Table 2 shows that the yield rate on total loan declined from 12.83 percent in 2000-01, to 6.57 percent in 2006-07 and increased to 7.61 percent in 2011-12. The trend was significantly

negative (-5.73%). The differential yield rate on RCCF declined from 4.17 percent in 2000-01 to 1.08 percent in 2004-05 and increased to 3.89 percent in 2011-12. The growth rate of 9.17 percent compounded annually came to be non-significant due to instability in the differential yield rate on RCCF during the period of the study. The differential earnings from RCCF declined from ₹ 190.01 lakh in 2000-01 to ₹ 49.48 lakh in 2004-05 and increased to ₹ 318.13 lakh in 2011-12. The differential earnings increased at a significant rate of 15.30 percent compounded annually. Therefore, the differential earnings from RCCF depicted a positive trend during the period of the study. Compound annual growth rate of yield in total loan was -5.73 percent as compared to -2.63 percent that of RCCF. As a result differential earnings registered a positive compound growth rate of 9.17 percent. Due to growing share of RCCF in total loan Ludhiana CCB was able to generate average excessive yield of ₹ 173.05 lakh

Table 2: Differential Earnings on RCCF in Ludhiana CCB Ltd.

(₹ in Lakh)

Year	RCCF O/S	Yield Rate on RCCF (%)	Yield Rate on Total Loan (%)	Differential Yield Rate (%)	Differential Earnings	Net Profit	Differential Earnings: Net Profit (%)
2000-01	4556.53	17.00	12.83	4.17	190.01	920.06	20.65
2001-02	4986.44	14.00	12.43	1.57	78.29	1017.12	7.70
2002-03	5118.74	13.00	11.60	1.40	71.66	1018.21	7.04
2003-04	4960.27	12.00	10.75	1.25	62.00	1280.95	4.84
2004-05	4581.17	11.00	9.92	1.08	49.48	1299.02	3.81
2005-06	4352.11	10.00	8.77	1.23	53.53	569.68	9.40
2006-07	4230.36	10.50	6.57	3.93	166.25	194.64	85.42
2007-08	6043.44	11.00	7.31	3.69	223.00	219.95	101.39
2008-09	6731.16	11.00	6.96	4.04	271.94	231.61	117.41
2009-10	7559.38	11.00	7.31	3.69	278.94	255.55	109.15
2010-11	7892.27	11.50	7.53	3.97	313.32	288.91	108.45
2011-12	8178.13	11.50	7.61	3.89	318.13	318.99	99.73
Average	5765.83	11.96	9.13	2.83	173.05	634.56	56.25
C.V.	25.33	16.09	24.89	47.86	61.77	69.33	89.18
C.G.R.	5.62	-2.63	-5.73	9.17	15.30	-15.33	36.18
t-value	4.24**	2.81*	5.97**	1.99	2.83*	4.48**	3.44**

Source: Compiled from Various Reports of Central Cooperative Banks of Punjab

The analysis presented in Table 2 further shows that net profit was ₹ 920.06 lakh in 2000-01 which increased to ₹ 1299.02 lakh in 2004-05 and decreased to ₹ 194.64 lakh in 2006-07. It was ₹ 318.99 lakh in 2011-12. The overall trend was significantly negative to the order of 15.33 percent compounded annually. The differential earnings from RCCF were 20.65 percent of the net profit of the bank in 2000-01 which declined to 3.81 percent in 2004-05 and increased to 117.41 percent in 2008-09. Hence the differential earnings from RCCF were 99.73 percent of the net profit in 2011-12. The growth rate of differential earnings from RCCF as percent of net profit came to be 36.18 percent compounded annually, which was statistically significant.

(iii) **The Faridkot Central Cooperative Bank Limited, Faridkot**

Table 3: Differential Earnings on RCCF in Faridkot CCB Ltd.

(₹ in Lakh)

Year	RCCF O/S	Yield Rate on RCCF (%)	Yield Rate on Total Loan (%)	Differential Yield Rate (%)	Differential Earnings	Net Profit	Differential Earnings : Net Profit (%)
2000-01	1713.67	17.00	12.80	4.20	71.97	46.50	154.78
2001-02	2371.03	14.00	12.82	1.18	27.98	101.13	27.67
2002-03	2774.49	13.00	12.68	0.32	8.88	175.41	5.06
2003-04	3034.85	12.00	11.52	0.48	14.57	181.78	8.01
2004-05	3193.90	11.00	10.30	0.70	22.36	201.27	11.11
2005-06	3626.00	10.00	8.52	1.48	53.66	18.21	294.70
2006-07	4500.30	10.50	7.44	3.06	137.71	-52.62	261.71
2007-08	5354.46	11.00	7.77	3.23	172.95	-134.18	128.89
2008-09	5152.61	11.00	8.12	2.88	148.40	12.95	1145.91
2009-10	4987.01	11.00	8.08	2.92	145.62	-144.53	100.75
2010-11	5842.91	11.50	8.82	2.68	156.59	-120.19	130.29
2011-12	6690.60	11.50	8.62	2.88	192.69	-298.97	64.45
Average	4103.49	11.96	9.79	2.17	96.11	-1.10	194.44
C.V.	37.47	16.09	21.58	58.63	71.90	-14006.07	161.71
C.G.R.	11.69	-2.63	-4.64	12.22	25.34	-25.74	22.18
t-value	12.01**	2.81*	4.62**	1.67	3.23**	3.00*	1.42

Source: Compiled from Various Reports of Central Cooperative Banks of Punjab

Table 3 reveals that the yield rate on total loan declined from 12.80 percent in 2000-01, to 7.44 percent in 2006-07 and increased to 8.62 percent in 2011-12. The trend was significantly

negative (-4.64%). The differential yield rate on RCCF declined from 4.20 percent in 2000-01 to 0.32 percent in 2002-03 and increased to 3.23 percent in 2007-08. It was 2.88 percent in 2011-12. The growth rate of 12.22 percent compounded annually came to be non-significant due to instability in the differential yield rate on RCCF during the period of the study. The differential earnings from RCCF was ₹ 71.97 lakh in 2000-01 which had declined to ₹ 8.88 lakh in 2002-03 and increased to ₹ 192.69 lakh in 2011-12. The differential earnings increased at a significant rate of 25.34 percent compounded annually. Therefore, the differential earnings from RCCF depicted a positive trend during the period of the study.

Table 3 further shows that net profit in Faridkot CCB increased from ₹ 46.50 lakh in 2000-01 to ₹ 201.27 lakh in 2004-05 and decreased to a negative figure of ₹ -134.18 lakh in 2007-08. It then increased to ₹ 12.95 lakh in the next year but turned to be consistently negative again to the tune of ₹ 298.97 lakh in 2011-12. The overall trend was significantly negative of the order of 25.74 percent compounded annually. The differential earnings from RCCF were 154.78 percent of the net profit of the bank in 2000-01 which declined to 5.06 percent in 2002-03 and increased to as high as 1145.95 percent in 2008-09. Hence in 2011-12 the differential earnings from RCCF was (64.45) percent of the net profit. The growth rate of differential earnings from RCCF as percent of net profit came to be 22.18 percent compounded annually, which was statistically non-significant. After 2006-07 the net profit of Faridkot CCB was negative i.e. depicting the loss except in the year 2007-08. **Despite of differential earnings the bank was running into losses and this loss could be much more had the RCCF earnings was not there.**

(iv) **The Fazilka Central Cooperative Bank Limited, Fazilka**

Table 4: Differential Earnings on RCCF in Fazilka CCB Ltd.

(₹ in Lakh)

Year	RCCF O/S	Yield Rate on RCCF (%)	Yield Rate on Total Loan (%)	Differential Yield Rate (%)	Differential Earnings	Net Profit	Differential Earnings: Net Profit (%)
2000-01	2167.52	17.00	12.72	4.28	92.77	154.06	60.22
2001-02	2698.55	14.00	12.75	1.25	33.73	155.08	21.75
2002-03	2899.75	13.00	11.63	1.37	39.73	216.64	18.34
2003-04	2955.68	12.00	10.99	1.01	29.85	306.30	9.75
2004-05	3006.51	11.00	9.99	1.01	30.37	318.67	9.53

2005-06	2853.00	10.00	8.75	1.25	35.66	250.58	14.23
2006-07	2960.55	10.50	7.06	3.44	101.84	5.69	1789.86
2007-08	3932.30	11.00	7.50	3.50	137.63	8.72	1578.33
2008-09	4373.54	11.00	7.58	3.42	149.58	17.59	850.34
2009-10	4441.95	11.00	7.76	3.24	143.92	27.97	514.55
2010-11	4214.76	11.50	7.34	4.16	175.33	35.32	496.42
2011-12	4209.53	11.50	7.99	3.51	147.75	-41.21	358.54
Average	3392.80	11.96	9.34	2.62	93.18	121.28	476.82
C.V.	23.07	16.09	23.24	50.02	60.70	105.62	131.64
C.G.R.	6.16	-2.63	-5.39	9.33	16.06	-27.54	48.78
t-value	7.17**	2.81*	6.31**	1.94	3.20**	3.86**	2.49*

Source: Compiled from Various Reports of Central Cooperative Banks of Punjab

Table 4 conveys that the yield rate on total loan was 12.72 percent in 2000-01, which declined to 7.06 percent in 2006-07 and increased to 7.99 percent in 2011-12. The trend was significantly negative (-5.39%). The differential yield rate on RCCF was 4.28 percent in 2000-01 which declined to 1.01 percent in 2004-05 and increased to 4.16 percent in 2010-11. However, it again declined to 3.51 percent in the next year. The growth rate of 9.33 percent compounded annually came to be non-significant due to instability in the differential yield rate on RCCF loan during the period of the study. In absolute terms differential earnings from

RCCF were ₹ 92.77 lakh in 2000-01 which declined to ₹ 35.66 lakh in 2005-06 and increased to ₹ 175.33 lakh in 2010-11. However, it again declined to ₹ 147.75 lakh in 2011-12. The differential earnings grew at a significant rate of 16.06 percent compounded annually. As a result, the differential earnings from RCCF depicted a positive trend during the period of the study.

Table 4 further indicates that net profit was ₹ 154.06 lakh in 2000-01 which increased to ₹ 318.67 lakh in 2004-05 and decreased to ₹ 5.69 lakh in 2006-07 and again increased to ₹ 35.32 lakh in 2010-11 but decreased to a negative figure of ₹ -41.21 lakh in 2011-12. The overall trend in net profit was significantly negative of the order of -27.54 percent compounded annually. The differential earnings from RCCF were 60.22 percent of the net profit of the bank in 2000-01 which declined to 9.53 percent in 2004-05 and increased to as high as 1489.86 percent in 2006-07. Ultimately the differential earnings from RCCF were 358.54 percent of the net profit in

2011-12. It shows that if these differential earnings from RCCF were not there then there could have been heavy loss in the bank after 2006. The growth rate of differential earnings from RCCF as percent of net profit came to be 48.78 percent compounded annually, which was statistically significant.

(v) **The Kapurthala Central Cooperative Bank Limited, Kapurthala**

Table 5 shows that the yield rate on total loan declined from 12.65 percent in 2000-01, to 8.81 percent in 2006-07 and increased to 9.70 percent in 2011-12. The trend was significantly negative (-3.09%) as compared to compound growth rate of -2.63 percent registered by RCCF yield. The differential yield rate on RCCF declined from 4.35 percent in 2000-01 to 0.50 percent in 2005-06 and increased to 2.47 percent in 2010-11. However, it again declined to 1.80 percent in the next year. The growth rate of 1.61 percent compounded annually came to be non-significant due to instability in the differential yield rate on RCCF during the period of the study. The differential earnings from RCCF was ₹ 168.20 lakh in 2000-01 which declined to ₹ 35.62 lakh in 2005-06 and increased to ₹ 263.06 lakh in 2010-11. However, it again declined to ₹ 190.61 lakh in 2011-12. The differential earnings increased at a significant rate of 12.95 percent compounded annually.

Table 5: Differential Earnings on RCCF in Kapurthala CCB Ltd.

(₹ in Lakh)

Year	RCCF O/S	Yield Rate on RCCF (%)	Yield Rate on Total Loan (%)	Differential Yield Rate (%)	Differential Earnings	Net Profit	Differential Earnings: Net Profit (%)
2000-01	3866.76	17.00	12.65	4.35	168.20	519.98	32.35
2001-02	4344.45	14.00	12.51	1.49	64.73	457.57	14.15
2002-03	4803.67	13.00	11.67	1.33	63.89	652.65	9.79
2003-04	5239.71	12.00	11.12	0.88	46.11	838.37	5.50
2004-05	5171.96	11.00	10.12	0.88	45.51	748.92	6.08
2005-06	7124.03	10.00	9.50	0.50	35.62	621.60	5.73
2006-07	8069.60	10.50	8.81	1.69	136.38	258.83	52.69
2007-08	9678.83	11.00	9.12	1.88	181.96	329.18	55.28
2008-09	10357.48	11.00	9.18	1.82	188.51	356.81	52.83
2009-10	10816.60	11.00	9.07	1.93	208.76	508.98	41.02

2010-11	10650.30	11.50	9.03	2.47	263.06	407.80	64.51
2011-12	10589.52	11.50	9.70	1.80	190.61	509.21	37.43
Average	7559.41	11.96	10.21	1.75	132.78	517.49	31.45
C.V.	36.72	16.09	13.82	56.20	58.70	33.45	70.75
C.G.R.	11.16	-2.63	-3.09	1.61	12.95	-3.65	17.22
t-value	11.31**	2.81*	5.19**	0.33	2.32*	1.35	2.10

Source: Compiled from Various Reports of Central Cooperative Banks of Punjab

The analysis presented in Table 5 reveals that net profit was ₹ 519.98 lakh in 2000-01 which increased to ₹ 838.37 lakh in 2003-04 and decreased to ₹ 258.83 lakh in 2006-07. Then it increased to ₹ 509.21 lakh in 2011-12. The overall trend was negative of the order of 3.65 percent compounded annually. The differential earnings from RCCF were 32.15 percent of the net profit of the bank in 2000-01 which declined to 5.73 percent in 2005-06 and increased to 64.51 percent in 2010-11. It were 37.43 percent of the net profit in 2011-12. The growth rate of differential earnings from RCCF as percent of net profit came to be 17.22 percent compounded annually, which was statistically non-significant.

(vi) The Amritsar Central Cooperative Bank Limited, Amritsar

Table 6: Differential Earnings on RCCF in Amritsar CCB Ltd.

(₹ in Lakh)

Year	RCCF O/S	Yield Rate on RCCF (%)	Yield Rate on Total Loan (%)	Differential Yield Rate (%)	Differential Earnings	Net Profit	Differential Earnings: Net Profit (%)
2000-01	2717.91	17.00	13.01	3.99	108.44	103.80	104.47
2001-02	3628.36	14.00	12.28	1.72	62.41	60.30	103.50
2002-03	4192.61	13.00	11.13	1.87	78.40	203.88	38.45
2003-04	4303.18	12.00	11.14	0.86	37.01	252.46	14.66
2004-05	4304.24	11.00	10.11	0.89	38.31	112.02	34.20
2005-06	4296.00	10.00	9.81	0.19	8.16	78.65	10.38
2006-07	4136.90	10.50	7.94	2.56	105.90	-86.82	121.98
2007-08	4185.26	11.00	7.75	3.25	136.02	-1313.60	10.35
2008-09	3985.22	11.00	6.77	4.23	168.57	-174.33	96.70
2009-10	3584.40	11.00	8.30	2.70	96.78	87.34	110.81
2010-11	3704.48	11.50	7.59	3.91	144.85	30.27	478.51
2011-12	3770.98	11.50	8.08	3.42	128.97	152.59	84.52
Average	3900.80	11.96	9.49	2.47	92.82	-41.12	100.71

C.V.	11.82	16.09	21.52	55.04	52.82	-1014.29	125.46
C.G.R.	0.77	-2.63	-5.15	8.27	9.10	-8.01	9.97
t-value	0.68	2.81*	6.56**	1.01	1.20	0.48	0.93

Source: Compiled from Various Reports of Central Cooperative Banks of Punjab

Table 6 shows that the yield rate on total loan declined from 13.01 percent in 2000-01, to 6.77 percent in 2008-09 and increased to 8.08 percent in 2011-12. The trend was significantly negative (-5.15%). The differential yield rate on RCCF declined from 3.99 percent in 2000-01 to 0.19 percent in 2005-06 and increased to 4.23 percent in 2008-09. It was 3.42 percent in 2011-12. The growth rate of 8.27 percent compounded annually came to be non-significant due to instability in the differential yield rate on RCCF during the period of the study. The differential earnings from RCCF was ₹ 10844 lakh in 2000-01 which declined to ₹ 8.16 lakh in 2005-06 and increased to ₹ 144.85 lakh in 2010-11. However, it again declined to ₹ 128.97 lakh in 2011-12. The differential earnings increased at a non-significant rate of 9.10 percent compounded annually in Amritsar CCB.

The analysis presented in Table 6 indicates that net profit declined from ₹ 103.80 lakh in 2000-01 to ₹ 60.30 lakh in the next year and increased to ₹ 252.46 lakh in 2003-04. Then it turned to a negative magnitude of ₹ -1313.60 lakh in 2007-08. However, it improved to ₹ 152.59 lakh in 2011-12. The overall trend was negative to the order of 8.01 percent compounded annually. The differential earnings from RCCF were 104.47 percent of the net profit of the bank in 2000-01 which declined to 14.66 percent in 2003-04 and increased to 34.20 percent in 2004-05. Ultimately the differential earnings from RCCF were 84.52 percent of the net profit in 2011-12. The growth rate of differential earnings from RCCF as percent of net profit came to be 9.97 percent compounded annually, which was statistically non-significant.

II Impact of NPA Provision

NPAs are those loans which have turned bad. As per RBI direction banks have to make a provision (which is debited to profit and loss account) for these accounts at certain prescribed rates. In this part of the study, an attempt has been made to analyze the impact of NPAs provisions on profits of the bank. Percentage of provisions has been calculated by dividing amount of provisions with loan outstanding. Then its impact on differential rate has been

calculated to reach on the net impact of RCCF on profits of the bank. In case of Fazilka bank, data for the provisions made in case of total loan was available but product wise bifurcation of data was not there. Thus the study has been confined only to five DCCBs and Fazilka CCB has been excluded from the study for this purpose. In case of Faridkot CCB data for the NPAs provision in RCCF was available from 2004 onwards.

(i) **The Fatehgarh Sahib Central Cooperative Bank Limited, Fatehgarh Sahib**

Table 7: Impact of RCCF NPAs Provision on Profits of the Fatehgarh Sahib CCB Ltd.

Year	RCCF O/S	RCCF Provisi on %	Total Provision %	Differen tial Provisio n%	Differen tial Yield Rate	Gross Differenti al Earnings %	Total Differenti al Earnings	Net Profit	Differen tial earnings /net Profit
2001-02	3565.84	0.32	2.42	2.1	1.46	3.56	126.94	202.67	62.64
2002-03	3899.41	0.43	2.21	1.78	1.38	3.16	123.22	283.87	43.41
2003-04	3957.20	0.60	2.04	1.44	0.90	2.34	92.60	331.86	27.90
2004-05	3747.92	0.92	2.12	1.20	0.99	2.19	82.08	418.99	19.59
2005-06	3883.03	0.79	2.36	1.57	0.96	2.53	98.24	363.25	27.04
2006-07	4655.86	1.99	2.65	0.66	3.32	3.98	185.30	23.98	772.73
2007-08	7650.96	1.84	4.11	2.27	3.44	5.71	436.87	204.14	214.01
2008-09	9112.59	2.32	4.03	1.71	3.41	5.12	466.56	14.61	3193.43
2009-10	10842.70	1.77	3.11	1.34	3.15	4.49	486.84	129.87	374.87
2010-11	11506.00	1.86	3.29	1.43	3.39	4.82	554.59	149.53	370.89
2011-12	12479.10	1.82	2.99	1.17	3.24	4.41	550.33	168.32	326.95

Source: Compiled from Various Reports of Central Cooperative Banks of Punjab

Table 7 depicts that in Fatehgarh Sahib CCB percentage of provisions created for NPAs in RCCF was 0.32 percent in 2001-02, increased to 0.92 percent in 2004-05 and decreased to 0.79 in next year i.e. 2005-06. Thereafter it showed fluctuating trend and it was 1.82 percent in 2011-12 after reaching a peak of 2.32 percent in 2008-09. On the other hand percentage of total NPAs provision to total loan outstanding was 2.42 percent in 2001-02 decreased to 2.04 percent in 2003-04 but again increased to 4.11 percent in 2007-08 which was much higher than the percentage of provisions for NPAs in RCCF. But after that it started declining and it was 2.99 percent in the last year of study i.e. 2011-12.

Table 7 further reveals that there was substantial positive differential provision throughout the period of study in Fatehgarh Sahib CCB depicting that percentage of provisions created for NPAs in RCCF was much less than the percentage of provision for total loan. Differential provision was 2.1 percent in 2001-02 decreased to 0.66 percent in 2006-07 and increased to 2.27 percent in

next year i.e. 2007-08. In the last year of study it was 1.17 percent in 2011-12. It pushed up gross differential earnings rate to 3.56 percent in 2001-02. It decreased to 2.19 percent in 2004-05 but increased to 5.71 percent in 2007-08 and 4.41 percent in last year i.e. 2011-12. As a result total differential earnings was ₹ 126.94 lakh in 2001-02 which declined to ₹ 82.08 lakh in 2004-05 but after that increased continuously to ₹ 554.59 lakh in 2010-11. Total differential earnings were ₹ 550.33 lakh in the last year of study i.e. 2011-12. Comparative study of total differential earnings and net profit shows that after 2005-06 total differential earnings was more than net profit and if these earnings was not there then these profits might be turned into losses.

(ii) The Ludhiana Central Cooperative Bank Limited, Ludhiana

Table 8 shows that in Ludhiana CCB percentage of provisions created for NPAs in RCCF were 0.52 percent in 2001-02, increased to 2.33 percent in 2003-04 and decreased continuously to 0.94 in the last year of study i.e. 2011-12. It showed a declining trend here. On the other hand percentage of total NPAs provision to total loan outstanding showed fluctuating trend. It was 6.60 percent in 2001-02 increased to 9.75 percent in 2006-07 but decreased to 8.66 percent in 2007-08. Again it rose to 9.72 percent in the next year i.e. 2008-09 but after that it started declining and it was 7.93 percent in 2011-12 i.e. the last year of study.

Table 8 further depicts that in Ludhiana CCB percentage of provision created for NPAs in RCCF was much less than provision percentage of total NPAs. As a result differential

Table 8: Impact of RCCF NPAs Provision on Profits of the Ludhiana CCB Ltd.

Year	RCCF O/S	RCCF Provision %	Total Provision %	Differential Provision %	Differential Yield Rate	Gross Differential Earnings %	Total Differential Earnings	Net Profit	Differential earnings/net Profit
2001-02	4986.44	0.52	6.60	6.08	1.57	7.65	381.46	1017.12	37.50
2002-03	5118.74	0.90	5.39	4.49	1.40	5.89	301.49	1018.21	29.61
2003-04	4960.27	2.33	8.39	6.06	1.25	7.31	362.59	1280.95	28.31
2004-05	4581.17	2.27	8.69	6.42	1.08	7.5	343.59	1299.02	26.45
2005-06	4352.11	1.85	9.75	7.90	1.23	9.13	397.35	569.68	69.75
2006-07	4230.36	1.74	9.35	7.61	3.93	11.54	488.18	194.64	250.81
2007-08	6043.44	1.47	8.66	7.19	3.69	10.88	675.53	219.95	307.12
2008-09	6731.16	1.38	9.72	8.34	4.04	12.38	833.31	231.61	359.79
2009-10	7559.38	1.16	9.26	8.10	3.69	11.79	891.25	255.55	348.76
2010-11	7892.27	1.02	8.54	7.52	3.97	11.49	906.82	288.91	313.88
2011-12	8178.13	0.94	7.93	6.99	3.89	10.88	889.78	318.99	278.94

Source: Compiled from Various Reports of Central Cooperative Banks of Punjab

provision was 6.08 percent in 2001-02, it declined to 4.49 percent in next year i.e. 2002-03 and increased to 7.90 in 2005-06. It again slipped to 7.19 percent in 2007-08 but rose to 8.34 percent in 2008-09 there after it decreased to 6.99 percent in 2011-12 i.e. the last year of study. Adding it to differential yield rate resulted to a gross differential rate of 7.65 percent in 2001-02 which decreased to 5.89 percent in 2002-03. In next four years it increased and reached to 11.54 percent in 2006-07. But in 2007-08 declined to 10.88 percent and increased to 12.38 percent in 2008-09. It was 10.88 percent in the last year i.e. 2011-12. DCCB earned total differential earnings which were ₹ 381.46 lakh in 2001-02, decreased to ₹ 301.49 lakh in 2002-03 again increased to ₹ 906.82 lakh in 2010-11. It was ₹ 889.78 lakh in 2011-12. Ratio of differential earnings to net profit was fluctuating but it is interesting to note that after 2006 total differential earnings was much more than net profit and it was 2.5 times to 3.5 times of net profit. Thus these differential earnings had enabled the Ludhiana CCB to maintain its net profit.

(iii) The Faridkot Central Cooperative Bank Limited, Faridkot

Table 9 reveals that in Faridkot CCB percentage of provisions created for NPAs in RCCF was 1.18 percent in 2003-04, increased to 1.36 percent in 2004-05 and decreased to 1.04 in the 2006-07. Thereafter it showed fluctuating trend and it was 1.56 percent in 2011-12 after reaching a peak of 2.17 percent in 2009-10. On the other hand percentage of total NPAs provision to total loan outstanding showed fluctuating trend. It was 1.02 percent in 2003-04 increased to 1.48 percent in 2004-05 but decreased to 1.34 percent in 2006-07. Again it rose to 2.94 percent in 2009-10 but it declined in last two years and it was 2.00 percent in 2011-12.

Table 9: Impact of RCCF NPAs Provision on Profits of the Faridkot CCB Ltd.

Year	RCCF O/S	RCCF Provision %	Total Provision %	Differential Provision %	Differential Yield Rate	Gross Differential Earnings %	Total Differential Earnings	Net Profit	Differential earnings /net Profit
2003-04	3034.85	1.18	1.02	-0.16	0.48	0.32	9.71	181.78	5.34
2004-05	3193.90	1.36	1.48	0.12	0.70	0.82	26.19	201.27	13.01
2005-06	3626.00	1.19	1.43	0.24	1.48	1.72	62.37	18.21	342.50
2006-07	4500.30	1.04	1.34	0.30	3.06	3.36	151.21	-52.62	-287.36
2007-08	5354.46	1.49	1.94	0.45	3.23	3.68	197.04	-134.18	-146.85
2008-09	5152.61	1.75	2.51	0.76	2.88	3.64	187.55	12.95	1448.26
2009-10	4987.01	2.17	2.94	0.77	2.92	3.69	184.02	-144.53	-127.32

2010-11	5842.91	1.72	2.28	0.56	2.68	3.24	189.31	-120.19	-157.51
2011-12	6690.60	1.56	2.00	0.44	2.88	3.32	222.13	-298.97	-74.30

Source: Compiled from Various Reports of Central Cooperative Banks of Punjab

Table 9 further shows that in Faridkot CCB percentage of provision created for NPAs in RCCF and total NPAs were almost same. Hence its contribution to profitability was marginal; rather it was negative in 2003-04. Differential provision was -0.16 in 2003-04 but it was positive during remaining period of study. It was 0.77 percent in 2009-10 and decreased to 0.44 percent in 2011-12. Due to negative differential provision gross differential rate was 0.32 percent in 2003-04 but increased to 3.68 percent in 2007-08 and decreased to 3.64 percent in next year i.e. 2008-09. It again rose to 3.69 percent in 2010-11 and in 2011-12 it further declined to 3.32 percent. It resulted in total differential earnings of ₹ 9.71 lakh in 2003-04 which increased to ₹ 197.04 lakh in 2007-08 and declined to ₹ 184.02 lakh in 2009-10 but again increased to ₹ 222.13 lakh in 2011-12. Total differential earnings had increased almost 25 times from 2003-04 to 2011-12 whereas the RCCF outstanding had doubled in this period. In 2003-04 and 2004-05 contribution of differential earnings to net profits of DCCB was poor but in remaining years its contribution was tremendous. In spite of differential earnings net profit of Faridkot CCB showed a negative figure this loss could be much if the RCCF was not there.

(iv) The Kapurthala Central Cooperative Bank Limited, Kapurthala

Table 10 indicates that in Kapurthala CCB percentage of provisions created for NPAs in RCCF was 0.36 percent in 2001-02, increased to 0.68 percent in 2004-05 and decreased to 0.38 in next year i.e. 2005-06. Thereafter it showed fluctuating trend but ranges from 0.30 percent to 0.40 percent and it was 0.34 percent in 2011-12. On the other hand percentage of total NPAs provision to total loan outstanding showed same trend as shown in RCCF provision percentage. It was 1.39 percent in 2001-02 decreased to 1.05 percent in 2002-03 but again increased to 1.46 percent in 2004-05. It was 1.20 percent in 2011-12.

Table 10: Impact of RCCF NPAs Provision on Profits of the Kapurthala CCB Ltd.

Year	RCCF O/S	RCCF Provision %	Total Provision %	Differential Provision %	Differential Yield Rate	Gross Differential Earnings %	Total Differential Earnings	Net Profit	Differential earnings /net Profit
2001-02	4344.45	0.36	1.39	1.03	1.18	2.21	96.01	457.57	20.98
2002-03	4803.67	0.56	1.05	0.49	0.32	0.81	38.91	652.65	5.96

2003-04	5239.71	0.65	1.39	0.74	0.48	1.22	63.92	838.37	7.62
2004-05	5171.96	0.68	1.46	0.78	0.70	1.48	76.54	748.92	10.22
2005-06	7124.03	0.38	1.32	0.94	1.48	2.42	172.40	621.60	27.73
2006-07	8069.60	0.40	1.28	0.88	3.06	3.94	317.94	258.83	122.84
2007-08	9678.83	0.42	1.46	1.04	3.23	4.27	413.29	329.18	172.79
2008-09	10357.48	0.39	1.61	1.22	2.88	4.10	424.66	356.81	119.01
2009-10	10816.60	0.35	1.60	1.25	2.92	4.17	451.05	508.98	88.62
2010-11	10650.30	0.30	1.48	1.18	2.68	3.86	411.10	407.80	100.81
2011-12	10589.52	0.34	1.20	0.86	2.88	3.74	396.05	509.21	77.78

Source: Compiled from Various Reports of Central Cooperative Banks of Punjab

Table 10 further depicts differential provision in Kapurthala CCB was 1.03 percent in 2001-02 declined to 0.49 percent in next year but increased to 0.94 percent in 2005-06. After so many fluctuations it was 0.86 percent in last year i.e. 2011-12 after reaching a peak of 1.25 in 2009-10. It created a gross differential rate of 2.21 percent in 2001-02 which decreased to 0.81 percent in 2002-03 and increased to 4.27 percent in 2007-08. Thereafter it declined to 3.74 percent in 2011-12 i.e. the last year of study. Total differential earnings were ₹ 96.01 lakh in 2001-02 which decreased to ₹ 38.91 lakh in 2002-03 and increased to ₹ 451.05 lakh in 2009-10 but again declined to ₹ 396.05 lakh in 2011-12. In the year 2006-07, 2007-08, 2008-09 and 2010-11 total differential earnings was more than the net profit. If this earnings was not there then profit might had turned into loss.

(v) **The Amritsar Central Cooperative Bank Limited, Amritsar**

Table 11 depicts that in Amritsar CCB percentage of provisions created for NPAs in RCCF was 1.06 percent in 2001-02 increased continuously and reached to 4.81 percent in 2010-11 and decreased to 4.29 in 2011-12. It showed an increasing trend. On the other hand percentage of total NPAs provision to total loan outstanding was 2.56 percent in 2001-02 decreased to 2.36 percent in 2003-04 but again increased to 3.60 percent in 2005-06. Thereafter it showed fluctuating trend and it was 4.60 percent in 2011-12 after reaching a peak of 5.13 percent in 2009-10.

Table 11: Impact of RCCF NPAs Provision on Profits of the Amritsar CCB Ltd.

Year	RCCF	RCCF Provision %	Total Provision %	Differential Provision	Differential Yield Rate	Gross differential Earning	Total Differential Earning	Net Profit	Differential earnings /net
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				%		s %	s		Profit
2001-02	3628.36	1.06	2.56	1.5	1.72	3.22	116.83	60.30	193.75
2002-03	4192.61	1.49	2.36	0.87	1.87	2.74	114.88	203.88	56.35
2003-04	4303.18	1.65	2.58	0.93	0.86	1.79	77.03	252.46	30.51
2004-05	4304.24	1.94	2.95	1.01	0.89	1.90	81.78	112.02	73.00
2005-06	4296.00	1.98	3.60	1.62	0.19	1.81	77.75	78.65	98.86
2006-07	4136.90	2.51	3.53	1.02	2.56	3.58	148.10	-86.82	-170.58
2007-08	4185.26	3.81	4.94	1.13	3.25	4.38	183.31	-1313.60	-13.95
2008-09	3985.22	3.74	4.11	0.37	4.23	4.60	183.32	-174.33	-105.16
2009-10	3584.40	4.15	5.13	0.98	2.70	3.68	131.91	87.34	151.03
2010-11	3704.48	4.81	4.77	-0.04	3.91	3.87	143.36	30.27	472.20
2011-12	3770.98	4.29	4.60	0.31	3.42	3.73	140.65	152.59	92.17

Source: Compiled from Various Reports of Central Cooperative Banks of Punjab

Table 11 further shows that in Amritsar CCB differential provision declined from 1.5 percent in 2001-02 to 0.87 percent in 2002-03 and increased to 1.62 percent in 2005-06. After that it increased in one year and decreased in the next year throughout the period of study and no definite trend was found. However it was -0.04 percent in 2010-11 and 0.31 percent in 2011-12. Gross differential earnings was 3.22 percent in 2001-02 decreased to 1.81 percent in 2005-06 and increased to 4.60 percent in 2008-09. But it again declined to 3.73 percent in 2011-12. Bank earned a total earnings of ₹ 116.83 lakh in 2001-02 which slipped to ₹ 77.03 lakh in 2003-04 again rose to ₹ 81.73 lakh in next year i.e. 2004-05. It again decreased to ₹ 77.75 lakh in 2005-06 but increased to ₹ 183.32 lakh in 2008-09. It was ₹ 140.65 lakh in 2011-12. A comparison of total differential earnings to net profit shows that if these differential earnings were not there then these profits would not be there and net losses might be more than what they were.

Overall, the analysis highlighted that the differential earnings from RCCF loan increased significantly in all the selected DCCBs in Punjab. This showed that RCCF loan remained a beneficial venture for the cooperative banks in Punjab. During the last six years i.e. from 2007 to 2012, RCCF had contributed significant amount in the profits of selected DCCBs. It is interesting to note that in Amritsar CCB also where the NPAs in RCCF were very high provision percentage for NPAs in RCCF was much less, which had resulted in positive contribution to profits.

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