

CHAPTER V

FINANCIAL PERFORMANCE OF NBFCs²⁴ IN KERALA

5.1 Introduction

Sustainability of a financial intermediary in an economy depends largely on the long term significance derived from satisfaction of community. Keeping this in mind, in third world economies, it is expected that, the Central Banks effectively regulate all types of financial mediators. From the literature, it is understood that self sustainability of NBFCs in Indian economy is a matter little explored for academic. The emerging scenario brought opportunities and challenges to NBFCs- an integral part of Indian Financial system- providing highly significant contribution to economic development. Against this notion, some allege that these NBFCs irrationally depend on *managed banking system* for their funding. In turn, economies place faith in these companies for their efficient financial intermediation. Although global financial crisis and economic recession have left many bewildered, the shadow banks²⁵ never threatened much²⁶ the third world economies. Yet the time necessitates the study of sustainability of these organizations on account of various reasons.

²⁴ Work of Berger et al. (1997) is cited here with extreme gratitude. Harnessing of the pertinent literature anchored at the sincere effort of these scholars. "*Efficiency of Financial Institutions: International Survey and Directions for Future Research*" was a result of survey of 130 studies to analyse financial institutions in 21 countries. Their prime finding was that the different efficiency methods reveals different results.

²⁵ Financial intermediaries fall outside the regulators.

²⁶ Shadow banks are progenies of global recession that systemically took the role of intermediation, have not drastically risked nations, especially developing economies like India. The challenging nature and extend of risk of shadow banks in developing economies are in rudimentary stage.

Whether these organizations overbearingly consume resources or the very existence is purely for the benefits of a few? The rationale of any institution can be stayed back on the consideration of certain time necessitated functions that are expectedly performed by the organizational system, deliberately prompted up by the mentioned institutions.

A well developed, improved and high quality financial institutions' functions result in the deliverance of larger direct effects on growth, especially in the middle-income countries (Demetriades & Law, 2004). So, as a preface to this exploration, efforts of scholars, which focus on the stock taking of such institutions, must be sufficiently cited. Among such efforts, contribution of Berger & Humphrey, (1997) deserves special mention. Their frontier analysis gives an objectively defined, numerical efficiency value and ranking of firms. Apart from such efforts, there are numerous explorations which focus on the necessity of the variant types of financial institutions. Lack of diversity results in consolidation and such consolidation in the financial sector is gainful up to a relatively small size (Amel, Barnes, Panetta, & Salleo, 2004). In the case of financial intermediaries, consolidation may offer better results. Some types of consolidation increase market power, improvements in profit efficiency and diversification of risks (Berger, Demsetz, & Strahan 1999). While these elements are necessary for sustainability of firms, there exist certain limiting factors for profitable investment. Study of Bond, Elston, Mairesse, & Mulkey (2003) is also admirable as they recognised the role of financial constraints on investment. The role was critical in more market-oriented U.K. financial

system during 1978-89. So we cannot completely exclude the contribution of variant financial service providers from Indian economy. Since Indian economy is striving towards the benefits of a market system, the service is more important. Findings of Lin & Zhang (2008) should be cited here as they surveyed the performance of banks in China for the period 1997-2004, and maintained that, during the period, state-owned commercial banks were less profitable, less efficient, and had worst asset quality than the rest. We can endorse their argument by adjuncting the finding of Rajan (1991), who postulated the benefits out of repeated interactions or relationships in reduction of cost, principally in a bank dominated economy. He criticises the armslength market²⁷ which may reduce welfare by destroying relationships. Later, acceptance of this notion prevailed and strengthened with the findings of Mr. Koeva in 2003. He examined the behaviour and determinants of bank intermediation costs and profitability during the liberalisation period. So we have empirical evidence for the *significant effect of ownership type on major performance indicators*. Apart from these considerations, strategy, execution and the environment are some of the pertinent drivers of performance of financial institutions (Harker & Zenios, 2000). Better financial performance is the lead of the investment decisions of institutional investors (Wahba & Elsayed, 2015).

As per the literature, post liberalisation period reminds a scrutiny of the performance of variant financial institutions in India. The past efforts criticise

²⁷ A market system in which parties have little interrelationships. In U.S, majority of the stock exchanges are considered to be arm's length.

the armslength finance and consequential destruction in terms of relationships. Some hold the view that the development of such relationship is crucial to the financial development and thereby economic growth and welfare. Efficiency of commercial banking system, on the grounds of rising costs, is challenged in certain spheres. Previous chapter focussed on the growth of NBFCs-ND-SI in India after the crisis. In this scenario, it is critical to know about the sustaining factors of non bank financial intermediaries in India. Specifically, by this effort, the following question shall be answered; what major circumstances make them shadow banks? This chapter evaluates the financial performance of NBFCs-ND-SI in Kerala.

5.2 Theoretical Framework

The theoretical framework, through the existing literature, will give a platform for this analysis. Yaron (1992), who defined two prime criteria for rural financial institutions' success- self sustainability and level of outreach achieved with the target population- accorded self sustainability as the situation where net return on equity exceeds or equals the opportunity cost of funds. Today's expectations barely match the mentioned parameter with sustainability. Although there is scarce justification for constructing parameters for sustainability of any type of intermediaries, more dimensions are essential to empirically affix the concept. More acceptable dimensions were studied by Sara (2011), who mapped out key characteristics of financially sustainable micro finance institutions and explained what features separate them from non

sustainable counterparts. Technological advantages and lending practices contributed to sustainability of profit making, self sufficient financial enterprises. Again, sustainable financial institutions have more reach to customers. Khandker, Khalily and Khan (1994) posited the ability to lend in more growth oriented activities and achieve cost efficiency on a sustained basis, as proxies for sustainability of Grameen Banks. A broader thinking must be ensured other than the net benefits achieved, contradicting the idea of Yaron (1992). The idea limited partially due to primary considerations, which support capital budgeting process. That ventures only have the very existence itself which concentrates on positive net results. So in this context, it would not be viable to use the specified variable for the establishment of sustainability of intermediaries. Rather the positive benefits on equity could be used as a parameter for the establishment of self-sustainability of firms. A more broad approach here means, identifying sustainability of Non Banking Financial Companies (NBFCs) in the context of prevailing economic conditions. More clearly, a relating approach primarily focuses on matching the institutions with the contemporary economy. Technological advantages definitely contributed to lending, and lending practices enhanced scope for NBFCs. It is accepted that the technological advantage generally augment sustainable benefits which will not contribute uniquely to the sustainability of any type of organization.

Musau, (2015) has established increasing revenue as an indicator of positive sustainability and decreasing revenue for poor sustainability. The study was an examination of the effects of microfinance institutions on the sustainability of

small enterprises. It seems better to adapt the specified indicator as a proxy to represent the sustainability of Non Banking Financial Companies. It is expected that the sustainability of small enterprises solely represents the sustainable intermediation of NBFCs²⁸.

5.3 An Overview of Models

Numerous attempts have been done to identify the vital determinants of the growth of non bank financial institutions. Capital management risk, solvency risk, liquidity risk, volume of capital and size of company are the most important determinants of financial performance of insurance companies in India (Wani & Dar, 2014). But they have excluded macro economic and other institutional determinants in this effort. The issue was seriously managed by Narwal, Pathneja, & Yadav (2015) who considered an extraneous element- *spread*²⁹. They explored that size matters to MFIs and spread matters to Indian banks (for ROE). At the same time, size and spread both matter to ROA of banks and spread is explaining the performance of microfinance institutions. Size is positively and significantly associated to DER of banks, whereas, size and spread together are significantly negative to DER of microfinance institutions. Their period of consideration was from 2006-07 to 2011-12. During this period, Indian financial sector had attained momentous growth.

²⁸ Corporate financial are primarily catered by development financial institutions. Short term financial requirements of corporate entities are met by commercial banks in India. The NBFCs majored in the provisioning of liquidity to small enterprises, along with the occasional provisioning of short term credit to corporate too. That provisioning to corporate is not eligible to quantifiable and does not deserve any serious study from the point view of empirical validation.

²⁹ In fact, spread is a basic determiner of financial performance of banks. This was empirically established by numerous people. In the case of insurance companies, the matter of spread is not born. But the same shall be compared with the efficiency at which the insurers handle the premium or like things. That efficiency may be a determiner of financial sustainability.

Correlation and Ordinary Least Square (OLS) regressions have been carried out on panel data to check the impact of explanatory variables on the profitability and capital structure performance of Indian Banks and MFIs. Following variables were used by the authors in their study. ROA (Operating income/Total assets), ROE (Net income/Average net worth), CAR (Total equity/ Total assets), STA (Spread/Total Assets) OPER (Operating expenses/Assets), PC (Fixed assets/Total assets), DER (Total debt/Total equity), Firm size (Log Total Assets). Ongore & Kusa, (2013) found that the financial performance of commercial banks in Kenya is driven mainly by board and management decisions, with insignificant contributions from macroeconomic factors. Siddiqui (2012) made an estimate of the relationship between debt service coverage ratio, liquidity ratio, tangibility ratio, profitability ratio, growth rate, operating leverage, firm size and age against individual debt components using Feasible Generalized Least Square (FGLS) regression. Total Long Term Debt Ratio, Short Term Debt Ratio and Total Debt Ratio have been taken as dependent variables. The study could unveil financing decisions of Non- Bank Financial Institutions of Bangladesh. Strands like Debt service coverage, liquidity ratio, growth rate, operating leverage, firm size and age of the firm have significant influence on the leverage structure chosen by NBFIs in the Bangladesh context. He has used data of 24 firms for the period of 2006-2008 regardless of listing status. Return on Assets (ROA) may be calculated by dividing profits before taxes by total assets, Firm Size is total assets and Financial Leverage is total debt to total assets (Elsayed, 2006;

Wahba & Elsayed, 2015). Growth rate of loans, total assets of banks and Non-performing Loans (NPLs) in the last year actually effected the growth of NPLs in recent years in the Vietnamese banking system (Minh Hue, 2015). The authors collected data from the balance sheets of 20 commercial banks in Vietnam. They also collected data from the Annual Report of the State Bank of Vietnam for the period 2009-2012. Microfinance capital structure, interest rates charged, differences in lending type, cost per borrower, product type, number of borrowers, MFI size, yield on gross loan portfolio, liquidity level, level of portfolio at risk, staff productivity, and the operating efficiency are the elements which affect the financial sustainability of rural microfinance institutions in Tanzania (Nyamsogoro, 2010)⁷. Concerning sustainability, microfinance sector in India is experiencing substantial problems. The outreach of the microfinance sector is very limited in relation to demand and the sector is striving for sustainability (Sinha, 2003). Insurers' size, Loss ratio (risk), tangibility and leverage are the major determinants of performance of companies in Ethiopia (Mehari & Aemiro, 2013). Their sample includes 9 insurance companies over the period 2005-2010. They used pooled OLS regression model and ROA ($\text{Net profit before tax}_{(t)}/\text{Total Assets}_{(t)}$) was the performance measure. In 2009, Rosenberg offered a technical guide to measure the performance of microfinance institutions. Breadth and depth of outreach, loan repayment, financial sustainability and efficiency are the basic tools to measure the performance. Thus, important elements that are to be analysed for

understanding the functioning of financial intermediaries, as established by the literature, are; financial expenses, credit, leverage and ROE.

Although the distributions of studies, which fairly fetched the arena of phenomenal developments in financial intermediation during post liberalization, satisfied (technically) the bureaucrats, certain models were nullified or even veered from the real picture. Financial exclusion is such an inconspicuous matter and the emergence of non banking financial intermediation is truly a consequence of it. Studies exaggerating the supremacy of commercial banking system categorically part the semi formal and informal agencies as a fag end. The luminaries behind the study, who unearthed the lure of these intermediaries, have always promulgated the rationale and, parallel consideration given to these agencies along with other micro finance organizations. Reserve Bank of India frames regulations for shadow banks on the specific grounds of systemic importance and interconnection. It is a general conviction that, these shadow banks function with the help of commercial banks. Technically, the help will be in the form of working capital advances, cash credit and overdraft facilities³⁰.

Literature specifies certain determiners of shadow banking; bank size, reach to mainstream and leverage. Basic financial indicators such as ROA, ROE, Size, and management efficiency make up the sustainability of shadow banks³¹. For exploring the sustaining factors of shadow banks, data of two major NBFCs'

³⁰ A bird's view on the structural aspects of NBFCs-ND-SI reveals the matter.

³¹ These are the highly commented factors in previous literature.

have been used. 10 years data- starting from 2007 have been used for analysis. Data have been assembled from the annual reports of NBFCs (ND-SI), RBI reports and Economic review of Kerala. In 2009, Afsa & Rauf evaluated the mutual fund performance in Pakistan. The purpose of their study was to provide guidelines to the managers of open-ended Pakistani mutual funds and to give benefit to small investors by pointing out the significant variables influencing the fund performance. They collected quarterly data for all the open-ended mutual funds listed on Mutual Fund Association of Pakistan, for years ranging from 1999 to 2006. They found that liquidity has a significant impact on fund performance. They ran OLS to estimate the mutual fund returns relationship with independent variables. Here also, OLS is run to know the relative significance of different variables to the dependent variable. The regression model is expanded to evaluate the relative significance of different variables on the ROE of these NBFCs.

5.4 Advances to Weaker Sections by Banks

Priority sector loans to the following kinds of borrowers (Table 5.1) will be considered under Weaker Sections category:-

Table 5.1**Priority Sector Loans to Weaker Sections**

| No. | Category |
|------------|--|
| 1 | Small and Marginal Farmers |
| 2 | Artisans, village and cottage industries where individual credit limits do not exceed Rs 1 lakh |
| 3 | Beneficiaries under Government Sponsored Schemes such as National Rural Livelihoods Mission (NRLM), National Urban Livelihood Mission (NULM) and Self Employment Scheme for Rehabilitation of Manual Scavengers (SRMS) |
| 4 | Scheduled Castes and Scheduled Tribes |
| 5 | Beneficiaries of Differential Rate of Interest (DRI) scheme |
| 6 | Self Help Groups |
| 7 | Distressed farmers indebted to non-institutional lenders |
| 8 | Distressed persons other than farmers, with loan amount not exceeding Rs 1 lakh per borrower to prepay their debt to non-institutional lenders |
| 9 | Individual women beneficiaries up to Rs 1 lakh per borrower |
| 10 | Persons with disabilities |
| 11 | Overdrafts upto Rs 5,000/- under Pradhan Mantri Jan-DhanYojana (PMJDY) accounts, provided the borrowers' household annual income does not exceed Rs 100,000/- for rural areas and Rs 1,60,000/- for non-rural areas |
| 12 | Minority communities as may be notified by Government of India from time to time |

Source: Priority Sector Lending-Targets and Classification, Notification by RBI Dated April 23, 2015.
<https://rbi.org.in/scripts/NotificationUser.aspx?Id=9688&Mode=0>

5.5 Major NBFCs-ND-SI in Kerala

Although Kerala is a state enriched with a good bank network, the variant financial needs, which evolve parallel to the developmental movements of the state, always demand multiplicity in financial institutions. Various NBFCs-ND-SI in Kerala cater both long term and short term financial requirements of the people. The contribution of these entities towards the development of the regional community is praiseworthy. Following paragraphs briefly describe about major NBFCs in Kerala.

5.5.1 Kerala State Industrial Development Corporation (KSIDC)

Kerala State Industrial Development Corporation (KSIDC) is the foremost Government agency working for industrial and investment promotion in Kerala. It was formed in 1961, with the prime objectives of promoting, facilitating and financing large and medium scale industries and catalyzing the development needs of physical and social infrastructure required for industrial growth in the state. It can be regarded as a stop-shop to set up an industry in Kerala and a single point contact for investments. KSIDC renders a wide variety of services to investors including development of business ideas identifying viable projects, feasibility study and providing financial assistance and guidance for implementation. It's the nodal agency for foreign and domestic investments in Kerala and it facilitates clearances, approvals and processes various incentive schemes for starting new ventures. KSIDC acts as a spokesman of the State who spreads its industrial ethos besides being an interface between the Government and the Industry.

KSIDC team includes a core group of skilled professionals from various fields like Engineering, Management, Finance and Law. KSIDC has played a catalytic role in the industrial development of the state. To encourage more self start-ups and to attract young entrepreneurs for utilizing the resources for industrialization, KSIDC renders services in the following key areas: Identification of Investment Ideas, Translating ideas into concrete proposals, Feasibility Study, Project Evaluation, Financial Structuring , Loan Syndication, Assisting in Government Clearances, Development of Growth Centers and

Industrial and Infrastructure development. Apart from these, the other services provided by KSIDC to investors and entrepreneurs are; Project Lending, Single Window Clearance, Equipment Purchase Loan and Consultancy Service

5.5.2 Kerala State Backward Classes Development Corporation (KSBCDC)

Kerala State Backward Classes Development Corporation Ltd. (KSBCDC) is a company fully owned by the Government of Kerala, registered under the Companies Act 1956 on 28/02/1995 with registered Office at Thiruvananthapuram. The Corporation also has offices in all the 14 Districts of the State of Kerala. The major objectives of the Corporation are:

- a) To promote the comprehensive development of the Other Backward Classes and Minorities of Kerala by providing assistance by way of loans and advances for establishing small enterprises in various sectors like agricultural and allied, small business, service, transport, artisans and handicrafts etc.
- b) To promote schemes, establish institutions for the socio, economic and educational uplift of the members of Other Backward Classes of Kerala State.
- c) To assist Other Backward Classes and Minorities for the up gradation of technical and entrepreneurial skills for efficient management.

5.5.3 Kerala State Financial Enterprises Limited (KSFE)

KSFE was formed by the Government of Kerala on 6th November 1969 and is a Miscellaneous Non-Banking Finance Company fully owned by the

Government of Kerala. The Paid up capital then was Rs. 2 Lakhs. The following are the important objectives:

- a) To start, conduct, promote, manage and carry on the business of chitties in India or elsewhere.
- b) To promote, undertake, organise, conduct and carry on the business of general and miscellaneous insurance of any kind in India or elsewhere.
- c) To start, promote, conduct, operate, carry on and manage the business of dealers agents and traders under hire purchase system of articles, vehicles, machinery, materials goods and tools of all capital goods and consumer goods and property of all nature and description for personal, domestic, office, commercial, industrial and community use and consumption as a business of the company or as agents of government, state or central, or anybody or organisation there under or any other company.

5.5.4 Muthoot Finance Ltd

Muthoot Finance Ltd is the largest Gold Financing Company in India in terms of loan portfolio, according to the 2015 update to the IMAcS Research & Analytics Industry Reports, Gold Loans Market in India, 2015 ("IMaCS Industry Report, (2015 Update)"). In 1887, The Group came into being as a trading business in a Kerala village. It commenced gold loan business in 1939. In 2001, it received the RBI license to function as an NBFC. In 2007 Muthoot

Finance Ltd is Categorised as NBFC-ND-SI as per RBI norms. In 2008, it was converted into a public limited company.

5.5.5 Manappuram Finance Ltd

India's first listed (and first to be credit rated) gold loan company, registered under the Reserve Bank of India. Manappuram Finance Ltd. is one of India's leading gold loan NBFCs. In 1949 it was founded in the coastal village of Valapad (Thrissur District). Incorporated in 1992, Manappuram Finance Ltd. has grown at a rapid pace. Today, it has 3,747 branches across 28 states/UTs with assets under management (AUM) of nearly Rs.13, 0140 million and a workforce of 19,372. The first non banking financial company (NBFC) in Kerala to receive a Certificate of Registration issued by the RBI, it was also among the earliest to go for an IPO in 1995. In 2007, it became the first Kerala based NBFC to receive investment from foreign institutional investors (FIIs) when the celebrated PE fund, Sequoia Capital, invested Rs.700 million along with Hudson Equity Holdings. Sizable foreign investment was received during two QIPS in 2010 when a total of Rs.12, 450 million was raised. Manappuram Finance Ltd. was the first NBFC in Kerala to obtain the highest short term credit rating of A1+ from ICRA. In 2010, it became the first Kerala-based NBFC to offer ESOPs (Employee Stock Option Plan) to its middle and senior management functionaries.

5.5.6 Fedbank Financial Services Limited (Fedfina)

Fedfina is a wholly-owned Non Deposit Systematically Important Non-Banking Finance Company (NBFC-ND-SI) subsidiary of Federal Bank Limited. Incorporated in 1995, the company received the NBFC license from RBI in August 2010, post which the company has commenced the gold loan business. The company also ventured into the LAP segment in FY13 while wholesale lending was started in Q4FY14. The four states Andhra Pradesh, Telangana, Karnataka and Tamil Nadu cumulatively accounted for 100 percent of the gold loan portfolio as on September 30, 2016 while the LAP and wholesale portfolios were concentrated mainly in Maharashtra and Gujarat. As on September 30, 2016, Fedfina had a tangible net-worth of Rs.213.82 crore and outstanding loan portfolio of Rs.797.56 crore.

5.5.7 Muthoot Fincorp Ltd

Muthoot Fincorp Ltd., the flagship company of 130 year old Muthoot Pappachan Group, is one of the largest NBFCs in India, registered with the Reserve Bank of India. Muthoot Fincorp has over 3800 branches across India with an average walk in of 50,000 customers per day. The company has a diverse mix of retail offerings catering to the various needs of its customers including Gold Loans, Business Loans, Housing Loan, Auto Loans, Money Transfer, Foreign Exchange, Insurance Services and Wealth Management Services. The Authorised and Paid up Share Capital of the Company stood at Rs. 20,00 million and Rs. 19,37.06 million respectively (As at 31st March

2017). The Net Worth of the Company is Rs. 1, 68, 71.36 million as against Rs. 1, 42, 10.65 million in the previous year, registering an increase of 18.72 percent. As on 31 March 2017, the Company had 3,483 Branches spread across 18 States.

5.5.8 Kosamattam Finance Ltd

The Company was originally incorporated on March 25, 1987, as a private limited company under the provisions of the Companies Act, 1956 as Standard Shares and Loans Private Limited. Subsequently, the name of the Company was changed to “Kosamattam Finance Private Limited” pursuant to a fresh Certificate of Incorporation dated June 8, 2004. The Company was converted into a public limited company with the name “Kosamattam Finance Limited” on receipt of a fresh certificate of incorporation consequent on the change in status on November 22, 2013 from the Registrar of Companies, Kerala and Lakshadweep. The Company is Registered as a Non-Banking Financial Company with the Reserve Bank of India under Section 45-IA of the Reserve Bank of India Act, 1934 (2 of 1934). As at 31st March 2016, the company has 935 branches. Share capital and total assets as at that date is 143.67 million rupees and 1948.11 million rupees.

5.5.9 Muthoottu Mini Financiers Limited

Muthoottu Mini Financiers Ltd is a company which belongs to the Kerala based Muthoot group. It started its operations as a company in the year 1998 as a Non banking finance Company (NBFC) as Per the Provisions of the

Company Act, 1956 as Muthoottu Mini Financiers Private Limited and were licensed and registered with RBI. In the initial years of beginning, it had engaged only in the businesses of financing and provision of chit funds. It, as a private limited company, accepted debentures under Private placement of debentures as per RBI Guidelines. When RBI revised its guidelines, in order to issue debentures under public placement, they became a public company in 2013 and their name got changed in to Muthoottu Mini Financiers Limited.

5.6 Shadow Banking in Kerala

Shadow banking- in this context- is a relative term and specifies the relative share of NBFCs-ND-SI assets to total deposits of banks in Kerala. Theoretically it is assumed that shadow banks function with the help of banks³². Here, shadow banking is a fraction which represents the relative share of assets of shadow banks divided by total deposits of banks in Kerala.

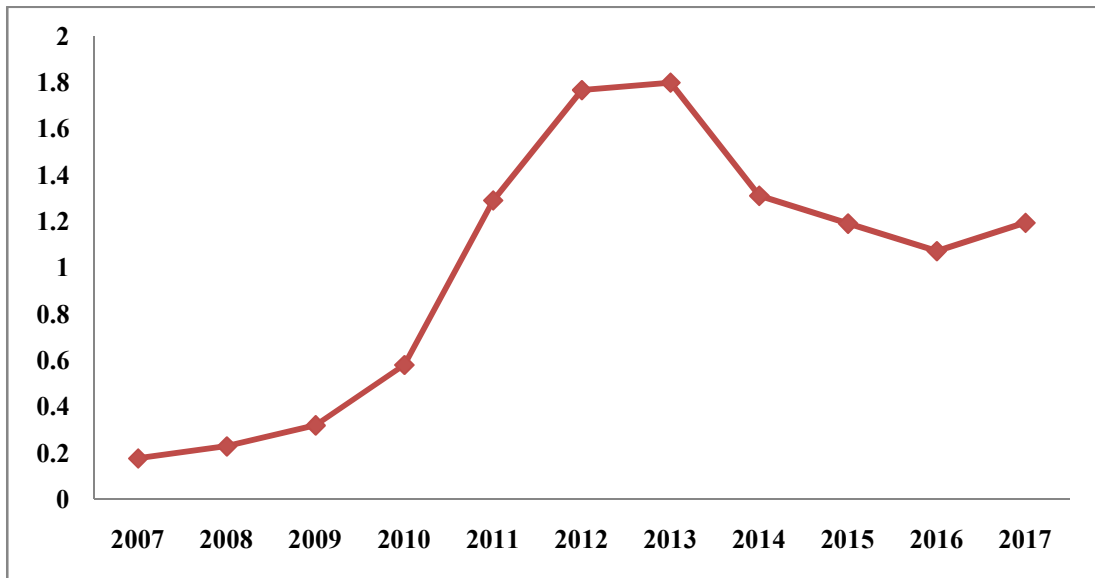
The Post crisis period witnessed a sweeping increase in the assets of shadow banks in Kerala ((Figure 5.1). But after 2013, the share of shadow banks tended to decline. A major NBFC included in this sample became non deposit taking one during the period. So, at primary level, it can be assumed that the non deposit taking nature fatally affects the size of the assets of shadow banks.

³² Non-deposit taking NBFCs have to depend on banks for their working capital. So technically, these NBFCs are termed as shadow banks in India. But the degree of dependence is silent in the policy framework. So, even though the dependence, quantitatively, shows a decreasing trend, non-deposit taking and systemically important NBFCs are still shadow banks. Technically, shadow banking is the share of NBFCs' assets on bank assets. But, it is illogical to include the non participating share of assets of banks in this context. It is assumed that Tier I capital is a non participatory category and it rather act as a proxy of security to the depositor.

Figure 5.1

Shadow Banking in Kerala

(Figures in Percentage)

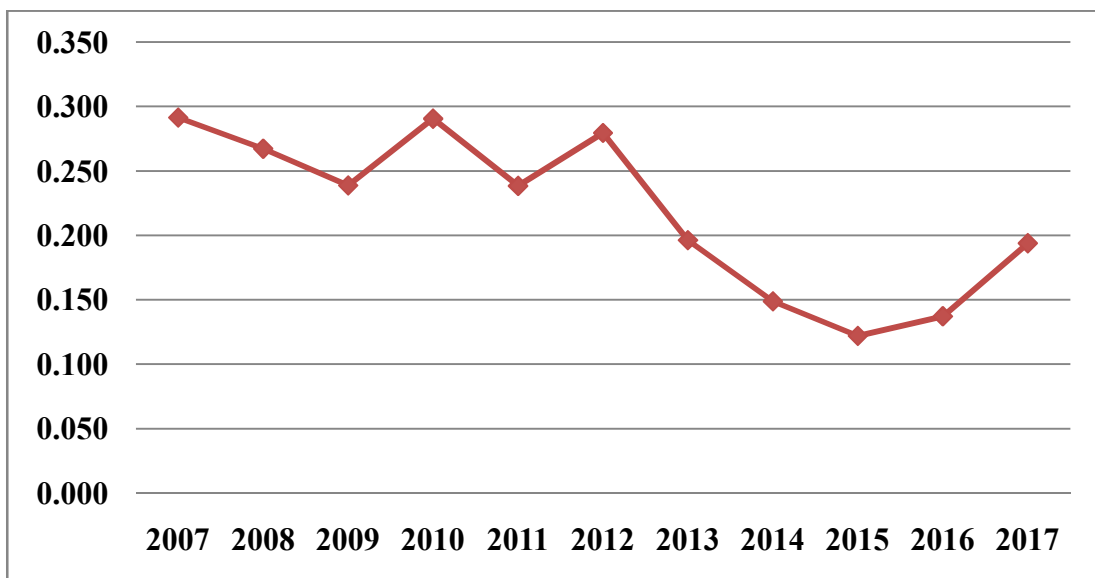


Note: Shadow Banking = Total Assets of two NBFCs-ND-SI / Total Deposits of Scheduled Commercial banks in Kerala.

Source: Annual Reports of NBFCs and Economic Review of Kerala for various years

Figure 5.2

ROE of Select NBFC-ND-SI in Kerala



Source: Annual reports of NBFCs for various years

The period shows a fluctuating trend in the Return on Equity (ROE) of these NBFCs (Figure 5.2). After 2015, there is an increasing trend probably on account of an increase in operating income.

Table 5.2

Summary of Operating and Position Statements of Select NBFCs-ND-SI in Kerala

(Amounts in Million Rupees)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|------------|------------|-------------|------------|-------------|------------|-------------|------------|-----------|
| YEAR | SC | RS | SF | NCL | INV | CBB | STLA | TA | CL |
| 2007 | 200 | 1680 | 1880 | 13788 | 79 | 782 | 14967 | 16645 | 679 |
| 2008 | 668 | 2496 | 3164 | 19038 | 85 | 3253 | 19775 | 24063 | 1445 |
| 2009 | 703 | 4658 | 5360 | 33388 | 86 | 9959 | 30046 | 41557 | 2148 |
| 2010 | 3350 | 8601 | 11951 | 64418 | 1482 | 8442 | 73524 | 83138 | 5335 |
| 2011 | 4036 | 28548 | 32584 | 167130 | 478 | 20419 | 181659 | 208534 | 5005 |
| 2012 | 5399 | 47668 | 53068 | 70606 | 3057 | 16127 | 310222 | 354490 | 221132 |
| 2013 | 5400 | 56385 | 61785 | 96955 | 7751 | 22256 | 364117 | 421441 | 255914 |
| 2014 | 5400 | 62164 | 67563 | 95293 | 8424 | 28822 | 300816 | 364323 | 198274 |
| 2015 | 5662 | 71447 | 77109 | 95800 | 2503 | 24192 | 327096 | 381014 | 204633 |
| 2016 | 5672 | 77888 | 83561 | 87805 | 983 | 11710 | 346028 | 389596 | 223819 |
| 2017 | 5679 | 92593 | 98272 | 69701 | 5333 | 19459 | 388120 | 438594 | 263100 |
| | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| YEAR | PRO | CLP | OPIN | OI | FINE | PBT | PAT | EPS | TI |
| 2007 | 755 | 1433 | 2661 | 104 | 1089 | 836 | 548 | 98 | 2765 |
| 2008 | 1640 | 3085 | 4359 | 124 | 1942 | 1289 | 846 | 146 | 4483 |
| 2009 | 2436 | 4584 | 7668 | 197 | 3484 | 1945 | 1280 | 42 | 7865 |
| 2010 | 5959 | 11293 | 15474 | 202 | 6107 | 5274 | 3473 | 12 | 15676 |
| 2011 | 7694 | 12699 | 34638 | 336 | 13646 | 11851 | 7769 | 23 | 34974 |
| 2012 | 4341 | 225473 | 71522 | 527 | 34590 | 22085 | 14835 | 31 | 72049 |
| 2013 | 4441 | 260355 | 75762 | 751 | 40089 | 18179 | 12127 | 30 | 76513 |
| 2014 | 3173 | 201447 | 70283 | 309 | 36526 | 15366 | 10061 | 24 | 70592 |
| 2015 | 3465 | 208098 | 62895 | 160 | 29790 | 14403 | 9413 | 20 | 63056 |
| 2016 | 5794 | 229613 | 70745 | 180 | 31416 | 18357 | 11468 | 24 | 70925 |
| 2017 | 7521 | 270622 | 87356 | 195 | 32964 | 30359 | 19059 | 38 | 87551 |

Source: Annual Report of NBFCs for Various Years

Table 5.3**Items and Acronyms**

| Sl No | Particulars | Acronym |
|--------------|------------------------------------|----------------|
| 1 | Share Capital | SC |
| 2 | Reserves and surplus | RS |
| 3 | Share holders' fund | SF |
| 4 | Non Current Liabilities | NCL |
| 5 | Total Investments | INV |
| 6 | Cash and bank balances | CBB |
| 7 | Short-term Loans and advances | STLA |
| 8 | Total Assets | TA |
| 9 | Current Liabilities | CL |
| 10 | Provisions | PRO |
| 11 | Current Liabilities and Provisions | CLP |
| 12 | Income from services/operations | OPIN |
| 13 | Other income | OI |
| 14 | Financial expenses | FINE |
| 15 | Profit before Tax | PBT |
| 16 | Profit after Tax | PAT |
| 17 | Earnings Per Share | EPS |
| 18 | Total Income | TI |

From 2012, there was a significant increase in some important items of NBFCs. The increase is more visible in Reserve and Surplus, Short Term Loans and Advances and Current Liabilities (Table 5.2). To understand the interrelationships between different financial items, it is better to look into the related ratios and correlations.

The correlation matrix (Table 5.4) delineates the association between various variables. Short Term Loans and Advances (STLA) and Profit after Tax (PAT) are highly correlated (0.937). There persists high correlation between Current Liabilities (CL) and PAT (0.896). Likewise, Financial Expense (FINE) and PAT are displaying high correlation (0.890). Correlation between FINE and Shareholders' Funds (SF) is 0.903. Correlation between Investment (INV) and

Total Income (TI) is 0.735. Correlation between CL and Operating Income is 0.966.

Table 5.4

Correlation Matrix of Financial Items

| | SC | RS | SF | NCL | INV | CBB | STLA | TA | CL | PRO | CLP | OPIN | OI | FINE | PBT | PAT | EPS | TI |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|
| SC | 1 | | | | | | | | | | | | | | | | | |
| RS | .898 | 1 | | | | | | | | | | | | | | | | |
| SF | .910 | 1.000 | 1 | | | | | | | | | | | | | | | |
| NCL | .681 | .472 | .488 | 1 | | | | | | | | | | | | | | |
| INV | .646 | .612 | .618 | .307 | 1 | | | | | | | | | | | | | |
| CBB | .808 | .715 | .725 | .741 | .757 | 1 | | | | | | | | | | | | |
| STLA | .952 | .961 | .966 | .561 | .692 | .777 | 1 | | | | | | | | | | | |
| TA | .953 | .958 | .964 | .565 | .712 | .797 | .999 | 1 | | | | | | | | | | |
| CL | .863 | .925 | .927 | .310 | .729 | .665 | .958 | .958 | 1 | | | | | | | | | |
| PRO | .637 | .508 | .519 | .713 | .169 | .421 | .522 | .504 | .317 | 1 | | | | | | | | |
| CLP | .870 | .929 | .931 | .322 | .728 | .669 | .962 | .961 | 1.000 | .334 | 1 | | | | | | | |
| OPIN | .941 | .953 | .958 | .514 | .734 | .772 | .992 | .993 | .966 | .506 | .970 | 1 | | | | | | |
| OI | .463 | .236 | .252 | .417 | .603 | .484 | .485 | .491 | .472 | .217 | .473 | .494 | 1 | | | | | |
| FINE | .922 | .896 | .903 | .504 | .794 | .800 | .971 | .977 | .963 | .382 | .964 | .978 | .595 | 1 | | | | |
| PBT | .881 | .912 | .916 | .474 | .619 | .660 | .934 | .925 | .892 | .639 | .899 | .953 | .425 | .878 | 1 | | | |
| PAT | .888 | .903 | .908 | .483 | .632 | .674 | .937 | .930 | .896 | .628 | .902 | .957 | .461 | .890 | .999 | 1 | | |
| EPS | -.727 | -.527 | -.543 | -.676 | -.385 | -.669 | -.589 | -.594 | -.454 | -.638 | -.464 | -.572 | -.361 | -.564 | -.524 | -.532 | 1 | |
| TI | .941 | .952 | .957 | .515 | .735 | .773 | .992 | .993 | .966 | .506 | .970 | 1.000 | .499 | .978 | .952 | .956 | -.572 | 1 |

Note: Table Shows Pearson Correlation Coefficients

Table 5.5

Major Financial Ratios of Select NBFCs-ND-SI

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------|--------|--------|-------|---------|--------|------|--------|
| YEAR | PBT/SF | NCL/TA | CL/TA | OPIN/TA | PBT/TA | ROA | EPS |
| 2007 | 0.44 | 0.83 | 0.04 | 0.16 | 0.05 | 0.03 | 97.61 |
| 2008 | 0.41 | 0.79 | 0.06 | 0.18 | 0.05 | 0.04 | 145.95 |
| 2009 | 0.36 | 0.80 | 0.05 | 0.18 | 0.05 | 0.03 | 41.82 |
| 2010 | 0.44 | 0.77 | 0.06 | 0.19 | 0.06 | 0.04 | 11.65 |
| 2011 | 0.36 | 0.80 | 0.02 | 0.17 | 0.06 | 0.04 | 23.39 |
| 2012 | 0.42 | 0.20 | 0.62 | 0.20 | 0.06 | 0.04 | 31.35 |
| 2013 | 0.29 | 0.23 | 0.61 | 0.18 | 0.04 | 0.03 | 29.50 |
| 2014 | 0.23 | 0.26 | 0.54 | 0.19 | 0.04 | 0.03 | 23.68 |
| 2015 | 0.19 | 0.25 | 0.54 | 0.17 | 0.04 | 0.02 | 20.19 |
| 2016 | 0.22 | 0.23 | 0.57 | 0.18 | 0.05 | 0.03 | 24.35 |
| 2017 | 0.31 | 0.16 | 0.60 | 0.20 | 0.07 | 0.04 | 38.19 |

| | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|------|------|------|--------|---------|-------|------|--------|
| YEAR | ME | ROE | INV/TA | STLA/TA | SF/TA | LEV | PAT/TA |
| 2007 | 0.96 | 0.29 | 0.00 | 0.90 | 0.11 | 0.01 | 0.03 |
| 2008 | 0.97 | 0.27 | 0.00 | 0.82 | 0.13 | 0.03 | 0.04 |
| 2009 | 0.97 | 0.24 | 0.00 | 0.72 | 0.13 | 0.02 | 0.03 |
| 2010 | 0.99 | 0.29 | 0.02 | 0.88 | 0.14 | 0.04 | 0.04 |
| 2011 | 0.99 | 0.24 | 0.00 | 0.87 | 0.16 | 0.02 | 0.04 |
| 2012 | 0.99 | 0.28 | 0.01 | 0.88 | 0.15 | 0.02 | 0.04 |
| 2013 | 0.99 | 0.20 | 0.02 | 0.86 | 0.15 | 0.01 | 0.03 |
| 2014 | 1.00 | 0.15 | 0.02 | 0.83 | 0.19 | 0.01 | 0.03 |
| 2015 | 1.00 | 0.12 | 0.01 | 0.86 | 0.20 | 0.01 | 0.02 |
| 2016 | 1.00 | 0.14 | 0.00 | 0.89 | 0.21 | 0.01 | 0.03 |
| 2017 | 1.00 | 0.19 | 0.01 | 0.88 | 0.22 | 0.01 | 0.04 |

ME (Management Efficiency) = Operating Income/Total Income, ROA (Return on Assets) = Profit after Tax/Total Assets, LEV (Leverage) = Equity/ Total Assets, ROE (Return on Equity) = Profit after Tax/Share Capital

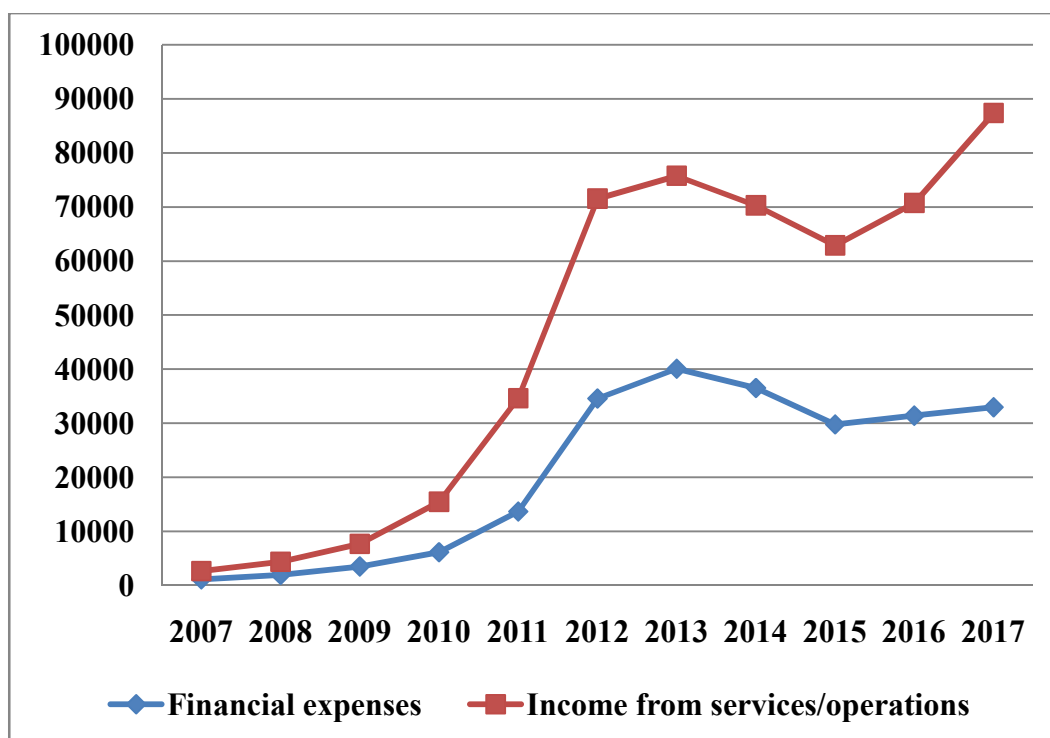
Source: Annual Reports of NBFCs for various years.

Profit before Tax to Shareholders' Funds shows a significant fall during this period (from 0.45 to 0.31). The fall in Profit after Tax to Shareholders' funds (ROE) is also significant (from 0.29 to 0.19). It generally assumes that these NBFCs cater the unbanked category in emerging economies. The period after liberalization, especially after the crisis, was vital for financial inclusion in such regions. From a beginners' view, we can deduct that, the substantial decrease in the owners' benefit for the studied period was primarily accountable to the inclusionary measures by banks. It must be kept in mind that the sample firms are doing business in microfinance. Since these firms are non deposit taking, fund for operation is mainly acquired from banks in the form of working capital loans and from the public in the form of debt. Both sources are costlier. Taking bank loan (working capital loans and cash credit) involves risk. Investors expect a premium on the debt. But the fall in owners' wealth does not primarily attribute to disproportionate finance cost, but to other factors.

Figure 5.3

**Trend of Financial Expenses and Income from Services/Operations
of Select NBFCs-ND-SI**

(Amount in Million Rs)



Source: Annual Reports of NBFCs for various years.

The widening gap between financial expenses and income from operations (Figure 5.3) underscores the interest burden on borrowers. This, however, at a technical level, is appreciable as these intermediaries are fast in processing and eligible to attract the mass. The post crisis borrowers are ready to bear the high interest cost but not time³³.

Evaluating the range statistic of ROA, Leverage, Investment to Total Assets, Management Efficiency, PBT to Total Assets and Operating income to total

³³ This interpretation was made solely on the ground of the processing efficiency of such financial intermediaries. There are views related with 'information asymmetry', a basic matter on which the entire shadow banking system moves and may sometimes leads to a systemic importance. In Indian context, the idea does not get much importance, especially in the case of NBFCs.

assets, it can be understood that the ratios are showing stability. Non-current liabilities and current liabilities of NBFCs highly fluctuated during the study period. Ratios showing very low variances are OPIN/TA, PBT/TA, ROA, ME, INV/TA and Leverage. So these ratios are the most precise estimates of the population. Hence these ratios are eligible to be used as to describe the population. NCL/TA and CL/TA show high variances.

Table 5.6

Description about Variables used for Regression Analysis

| SL NO | Acronym | Variable | Explanation |
|-------|---------------------------------|---------------------------------|--|
| 1 | ROE _t (Dependent) | Return on Equity | Profit after Tax of NBFCs for Current Year/ Share Capital of select NBFCs for Current Year |
| 2 | AdWSgr _{t-1} | Bank Advance to Weaker Sections | (Total Advance by SCBs in Kerala to Weaker Sections for Previous Year-Total Advance by SCBs in Kerala to Weaker Sections for Preceding Year)/Total Advance by SCBs in Kerala to Weaker Sections for Preceding Year |
| 3 | Brgr _{t-1} | Bank Branch Growth | (Total Number of SCBs' Branches in Kerala for previous Year- Total Number of SCBs' Branches in Kerala for Preceding Year)/ Total Number of SCBs' Branches in Kerala for Preceding Year |
| 4 | Lev _{t-1} | Leverage | Total Share Capital of select NBFCs for Previous Year/Total Assets of NBFCs for Previous Year |

Table 5.7

Descriptive Statistics

| | Minimum | Maximum | Mean | Std. Deviation |
|-----------------------|---------|---------|-------|----------------|
| ROEt | .12 | .29 | .2113 | .06096 |
| AdWSgr _{t-1} | .05 | .42 | .2203 | .12007 |
| Brgr _{t-1} | .03 | .09 | .0568 | .01875 |
| Lev _{t-1} | .01 | .04 | .0189 | .00876 |

Table 5.8

Correlation Matrix

| | ROE_{t-1} | AdWSgr_{t-1} | Brgr_{t-1} | Lev_{t-1} |
|-----------------------------|--------------------------|-----------------------------|---------------------------|--------------------------|
| ROE_t | 1 | .555 | -.544 | .309 |
| AdWSgr_{t-1} | .555 | 1 | .096 | -.035 |
| Brgr_{t-1} | -.544 | .096 | 1 | -.148 |
| Lev_{t-1} | .309 | -.035 | -.148 | 1 |

5.7 NBFCs-ND-SI and Shadow Banking Characteristics

We can term the NBFCs as shadow banks if these financial intermediaries depend significantly on commercial banks and are benefitted much with financial leverage. The post crisis scenario compelled monetary authority to prudentially design the regulatory framework for NBFCs-ND-SI at par with deposit taking NBFCs in India. This, along with the management of systemic risk, paved the way for the lessening the dependence on banks by NBFCs-ND-SI. Primary element determining the shadow banking nature is dependence on banks itself.

The crisis adversely affected total volume of deposits in commercial banks in Kerala and there was mere 11.62 percentage increase in the year 2008 (Table 5.9). In the same year, there occurred a huge fall in the financial expenses of NBFCs (-88.34). A high leap in the volume of total assets of NBFCs in 2011 made them resource abundant and their assets turned out higher than bank deposits in Kerala .The year 2012 was magnificent for Kerala banking industry since there took place a premier growth in the deposits (24.15 percent). In this year, the financial expenses of NBFCs also lifted up considerably (153.48 percent).

Table 5.9**Shadow Banking and Finance Costs of Select NBFCs**

| Year | Deposits in Scheduled Commercial Banks in Kerala (TBD) (Rs. Crore) | Total Assets of NBFCs | Total Assets of NBFCs/Total Bank Deposits in Kerala (Shadow Banking) | Financial Expenses of NBFCs |
|-------------|---|------------------------------|---|------------------------------------|
| 2007 | 945100(18.63) | 16644.65 | 0.018 | 16644.82 |
| 2008 | 1054880(11.62) | 24062.77(44.57) | 0.023 | 1941.50(-88.34) |
| 2009 | 1303500(23.57) | 41557.24(72.70) | 0.032 | 3483.61(79.43) |
| 2010 | 1434040(10.02) | 83137.77(100.06) | 0.058 | 6106.51(75.29) |
| 2011 | 1615620(12.66) | 208534.39(150.83) | 0.129 | 13646.07(123.47) |
| 2012 | 2005720(24.15) | 354490.44(69.99) | 0.177 | 34589.99(153.48) |
| 2013 | 2342170(16.78) | 421441.11(18.89) | 0.180 | 40089.30(15.90) |
| 2014 | 2779400(18.67) | 364322.56(-13.55) | 0.131 | 36525.89(-8.89) |
| 2015 | 3200100(15.14) | 381014.31(4.58) | 0.119 | 29790.26(-18.44) |
| 2016 | 3635110(13.59) | 389596.11(2.25) | 0.107 | 31415.58(5.46) |
| 2017 | | 438594.36(12.58) | 0.119 | 32963.70(4.93) |

Sources: 1. Economic Review of Kerala for various years

2. Annual Reports of two NBFCs-ND-SI in Kerala for various years.

Note: Figures in the parenthesis shows percentage growth. Amount in million rupees.

In 2010, there is a colossal increase in PAT (Table 5.10). The corresponding leverage was 0.04, the highest during the decade. Here leverage means book value of tangible equity to total assets (Cantor & Johnson, 1992). Thus the periods of high capital infusion benefitted these NBFCs in the form of growth in PAT and low capital infusion periods caused negative growth in PAT. Here, PAT represents Return on Assets (ROA). The correlation coefficient between growth in share capital and growth in PAT is 0.66. Correlation coefficient between Non-current liabilities and PAT is 0.52. So the result reaffirms the larger positive contribution of owned capital towards earnings.

Table 5.10**Owned Funds and PAT of Select NBFCs****(Amount in Million Rupees)**

| Year | PAT | Leverage | Share Capital | Reserve & Surplus | Shareholders Fund |
|-------------|------------------|-----------------|----------------------|------------------------------|--------------------------|
| 2007 | 547.84 | 0.012 | 200.00 | 1679.78 | 1879.78 |
| 2008 | 845.87(54.40) | 0.028 | 668.00(234.00) | 2496.32 | 3164.32(68.33) |
| 2009 | 1280.16(51.34) | 0.017 | 702.56(5.17) | 4657.87 | 5360.43(69.40) |
| 2010 | 3473.22(171.31) | 0.040 | 3350.39(376.88) | 8600.67 | 11951.06(122.95) |
| 2011 | 7768.64(123.67) | 0.019 | 4035.88(20.46) | 28547.82 | 32583.70(172.64) |
| 2012 | 14834.85(90.96) | 0.015 | 5399.44(33.79) | 47668.32 | 53067.76(62.87) |
| 2013 | 12126.72(-18.26) | 0.013 | 5399.54(0.00) | 56385.25 | 61784.79(16.43) |
| 2014 | 10060.80(-17.04) | 0.015 | 5399.54(0.00) | 62163.95 | 67563.49(9.35) |
| 2015 | 9412.56(-6.44) | 0.015 | 5662.07(4.86) | 71446.67 | 77108.74(14.13) |
| 2016 | 11467.96(21.84) | 0.015 | 5672.43(0.18) | 77888.14 | 83560.57(8.37) |
| 2017 | 19058.658(66.19) | 0.013 | 5678.56(0.11) | 92593.39 | 98271.94(17.61) |

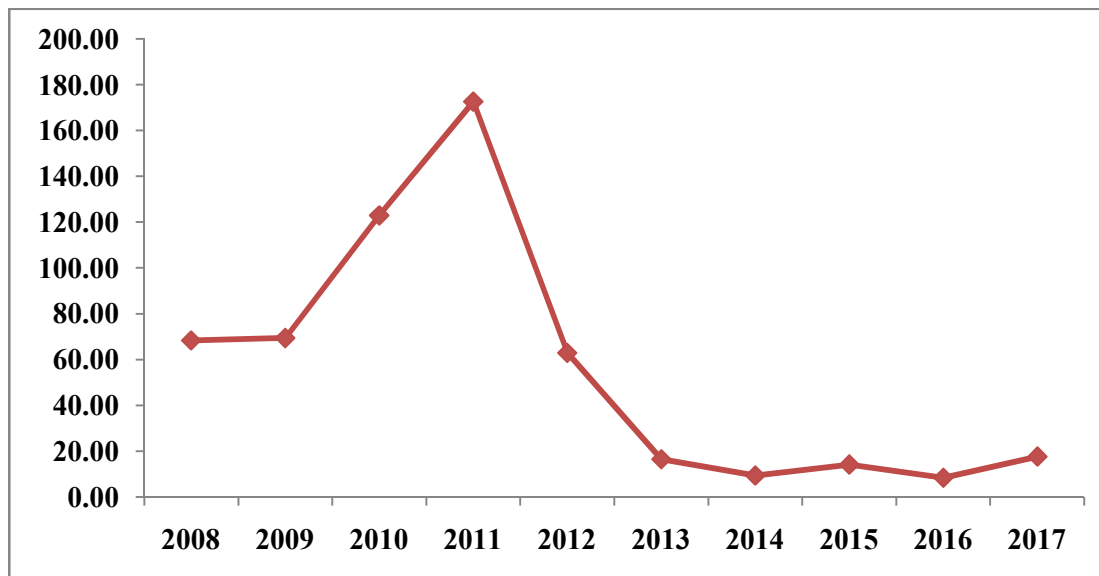
Source: Annual Reports of two NBFCs-ND-SI in Kerala for various years. Figures in the parenthesis show percentage growth.

The following sections empirically test the contribution of owned funds towards the earnings and growth. From 2011, the growth in shareholders' fund shows a steep fall (Figure 5.4). Infusion of share capital was negligible during the period.

Figure 5.4

Growth in Shareholders' Fund of Select NBFCs

(Figures in Percentage)



Source: Annual Reports of NBFCs-ND-SI in Kerala for various years. Figures are in Percentages.

Table 5.11

Owned and Debt Funds of Select NBFCs

(Figures in Million Rupees)

| Year | Shareholders' Funds | Total Assets | Debt | Debt % |
|------|---------------------|--------------|----------|--------|
| 2007 | 1879.78 | 16644.65 | 14764.87 | 88.71 |
| 2008 | 3164.32 | 24062.77 | 20898.45 | 86.85 |
| 2009 | 5360.43 | 41557.24 | 36196.81 | 87.10 |
| 2010 | 11951.06 | 83137.77 | 71186.71 | 85.62 |
| 2011 | 32583.70 | 208534.39 | 175950.7 | 84.37 |
| 2012 | 53067.76 | 354490.44 | 301422.7 | 85.03 |
| 2013 | 61784.79 | 421441.11 | 359656.3 | 85.34 |
| 2014 | 67563.49 | 364322.56 | 296759.1 | 81.46 |
| 2015 | 77108.74 | 381014.31 | 303905.6 | 79.76 |
| 2016 | 83560.57 | 389596.11 | 306035.5 | 78.55 |
| 2017 | 98271.94 | 438594.36 | 340322.4 | 77.59 |

Source: Annual Reports of two NBFCs-ND-SI in Kerala for various years.

Post crisis period shows a marginal decrease in the share of debt (Table 5.11).

The decrease in the debt harmfully affected the ROE (Table 5.12).

Table 5.12
Trend in Debt and ROE of Select NBFCs
(Figures in Percentage)

| Year | Debt | ROE |
|-------------|-------------|------------|
| 2007 | 88.71 | 29.14 |
| 2008 | 86.85 | 26.73 |
| 2009 | 87.10 | 23.88 |
| 2010 | 85.62 | 29.06 |
| 2011 | 84.37 | 23.84 |
| 2012 | 85.03 | 27.95 |
| 2013 | 85.34 | 19.63 |
| 2014 | 81.46 | 14.89 |
| 2015 | 79.76 | 12.21 |
| 2016 | 78.55 | 13.72 |
| 2017 | 77.59 | 19.39 |

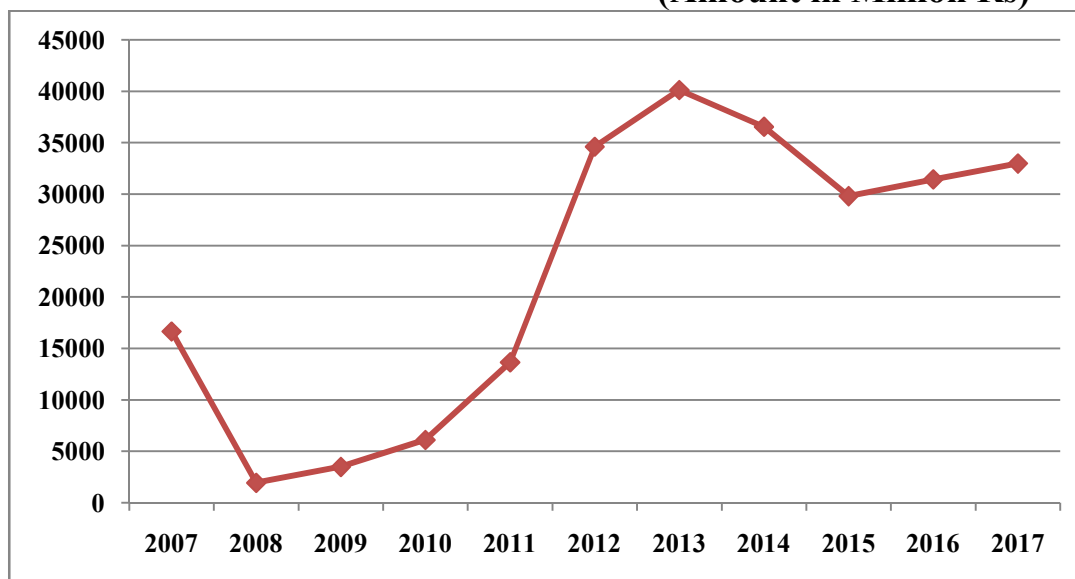
Source: Annual Reports of two NBFCs-ND-SI in Kerala for various years.

There occurred a significant leap in the financial expenses of shadow banks during the post crisis period (Figure 5.5). This is sure to benefit the self sustainability of such entities. It is critical for the monetary authority to specifically understand the components of debt of such intermediaries.

Figure 5.5

Finance Expense of Select NBFCs-ND-SI in Kerala

(Amount in Million Rs)



Source: Annual Reports of NBFCs-ND-SI in Kerala for various years.

Table 5.13

Income and Management Efficiency of Select NBFCs

(Income in Million Rs)

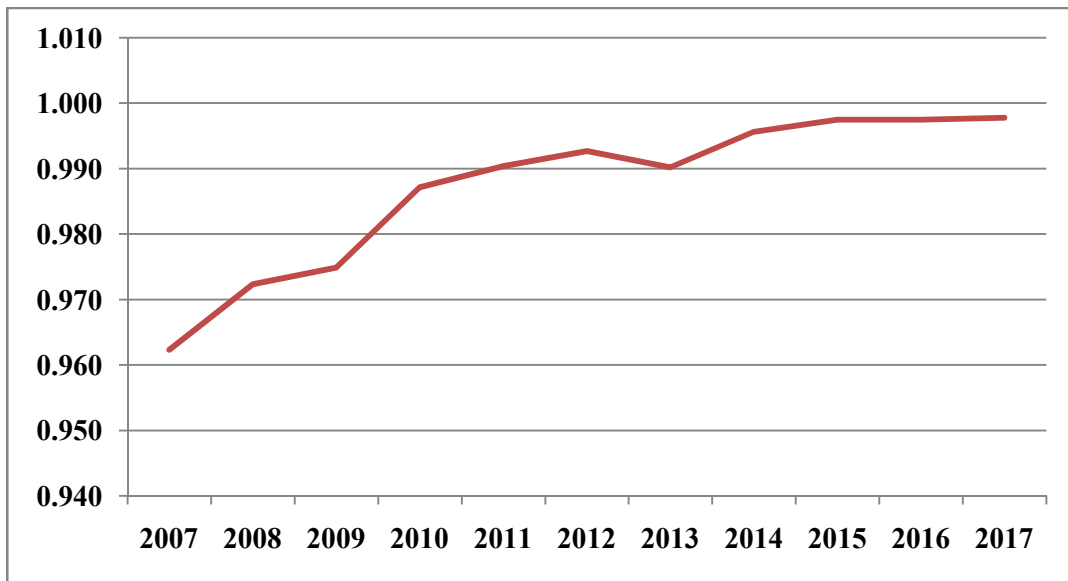
| Year | Operating Income (OI) | Total Income | Management Efficiency (ME) |
|------|-----------------------|------------------|----------------------------|
| 2007 | 2661.26 | 2765.46 | 0.962 |
| 2008 | 4358.97(63.79) | 4482.98(62.11) | 0.972 |
| 2009 | 7667.72(75.91) | 7865.11(75.44) | 0.975 |
| 2010 | 15474.29(101.81) | 15675.81(99.31) | 0.987 |
| 2011 | 34637.64(123.84) | 34973.94(123.11) | 0.990 |
| 2012 | 71522.20(106.49) | 72049.01(106.01) | 0.993 |
| 2013 | 75762.12(5.93) | 76512.65(6.20) | 0.990 |
| 2014 | 70283.10(-7.23) | 70592.30(-7.74) | 0.996 |
| 2015 | 62895.35(-10.51) | 63055.76(-10.68) | 0.997 |
| 2016 | 70744.79(12.48) | 70924.89(12.48) | 0.997 |
| 2017 | 87356.41(23.48) | 87551.35(23.44) | 0.997 |

Source: Annual Reports of two NBFCs-ND-SI in Kerala for various years. Figures in the parenthesis show percentage growth.

The post crisis period shows a beneficial increase in the growth of operating income (Table 5.13). The growth in operating income is little more than that of the growth in total income. This trend continued till 2012. From 2013, the growth in operating income, positive or negative, was a little less. In 2016, the positive growth in both- operating income and total income- was the same (12.48 percent). In the year 2011, both operating income and total income show the highest growth, 123.84 and 123.11 percent respectively. Concerning the Management Efficiency, the best performance was in the year 2016.

Figure 5.6

Management Efficiency of Select NBFCs- ND-SI



Management Efficiency= Operating Income/Total Income

Source: Annual Reports of NBFCs-ND-SI in Kerala for various years.

Table 5.14
Banking Access in Kerala

(Rs in Crores)

| Year | Advance to Weaker Sections per Branch |
|---------|---------------------------------------|
| 2005-06 | 2.03 |
| 2006-07 | 2.52 |
| 2007-08 | 2.53 |
| 2008-09 | 3.43 |
| 2009-10 | 4.12 |
| 2010-11 | 5.12 |
| 2011-12 | 6.20 |
| 2012-13 | 6.90 |
| 2013-14 | 7.75 |
| 2014-15 | 7.87 |
| 2015-16 | 8.20 |

Source: Economic Review of Kerala for various years.

Empirical evidences in developed economies show that one of the major determinants of shadow banking is leverage. In this framework, leverage means the benefit derived from the existence of ownership funds (Equity/Total Assets).

ROE of NBFCs is explainable by growth in advances to weaker sections by commercial banks, growth in the number of branches and leverage of NBFCs. There is a significant improvement in the volume of advance to weaker sections per branch (Table 5.14).

$$ROE_t = \alpha + \beta_1 AdWSgr_{t-1} + \beta_2 Brgr_{t-1} + \beta_3 Lev_{t-1} + \varepsilon$$

Independent Variables; Growth in Advances by SCBs for previous year, Growth in the number of branches of SCBs in Kerala for previous year and Leverage of NBFCs for previous year.

Table 5.15**Regression Results: Determinants of ROE**

| | <i>Coefficient</i> | <i>Std. Error</i> | <i>t-ratio</i> | <i>p-value</i> | |
|-----------------------------|--------------------|--------------------|----------------|----------------|-----|
| const | 0.214589 | 0.0573713 | 3.7404 | 0.00962 | *** |
| AdWSgr_{t-1} | 0.314099 | 0.108483 | 2.8954 | 0.02750 | ** |
| Brgr_{t-1} | -1.84473 | 0.702012 | -2.6278 | 0.03918 | ** |
| Lev_{t-1} | 1.71598 | 1.49696 | 1.1463 | 0.29532 | |
| Mean dependent var | 0.211315 | S.D. dependent var | | 0.060961 | |
| Sum squared resid | 0.009074 | S.E. of regression | | 0.038888 | |
| R-squared | 0.728709 | Adjusted R-squared | | 0.593064 | |
| F(3, 6) | 5.372169 | P-value(F) | | 0.038960 | |
| Log-likelihood | 20.83543 | Akaike criterion | | -33.67086 | |
| Schwarz criterion | -32.46051 | Hannan-Quinn | | -34.99860 | |
| rho | -0.394418 | Durbin-Watson | | 2.757014 | |

Dependent variable: ROE_t

As in the case of assets growth, growth in advances to weaker sections by commercial banks (0.31) for previous year positively and significantly affects the ROE of NBFCs. At the same time, growth in the number of bank branches for previous year negatively affects (-1.84) the current year ROE of NBFCs.

5.8 Major Findings, Implications

Shadow Banking, share of NBFCs-ND-SI assets in total bank deposits, even though drastically increased during the post crisis period (after 2008), it decreased after 2013. Here shadow banking is equal to total assets of two major non deposit taking systemically important NBFCs/ Total deposits of scheduled commercial banks in Kerala. The shadow banking, thus, represents the quantum of total assets of those NBFCs in relation to the bank deposits in Kerala. Both the total bank deposits and assets of NBFCs fell significantly after 2013. The fall in bank deposits is reflected in the preceding growths in the total

assets of NBFCs. This means that NBFCs-ND-SI directly depend on banks in Kerala.

ROE shows high volatility. Share capital of these NBFCs shows a stagnant state. There is a significant growth in reserves. These NBFCs' concentration on short term loans and advances is beneficial for them. There is high correlation between short term loans and advances and PAT. High positive correlation between current liabilities and PAT further points the dependence of these NBFCs on banks for working capital. The observation is strengthened when we look into the high correlation between Finance Costs and PAT. There is a high correlation between Finance Costs and Shareholders' funds. So owners are benefitted with the advantage of leverage.

Here, the instant micro finance arrangements of NBFCs work well. SCBs' branch growth is a proxy for financial reach. ROE of NBFCs is a proxy for self sustainability. It is explained by the growth in the advances to weaker sections by commercial banks for previous year, leverage of NBFCs for previous year and growth in the number of bank branches for the previous year. Here growth in advances to weaker sections by commercial banks for previous year and previous year's leverage of NBFCs positively affect the ROE of NBFCs. Here also, the strengthening process of commercial banks matters so far as it is concerned with ROE of NBFCs. Further, the contribution of leverage towards the ROE of NBFCs is found insignificant. Increase in financial reach, by way of bank branches, affects negatively the ROE of NBFCs.

Non deposits taking systemically important NBFCs in Kerala are being supported by commercial banks. Indirectly, these institutions generate risks to the saving community in India. From the primary observations, it is understood that, there will be alternative financial institutions other than banks in India. To confirm the complementary role of NBFCs, there should be sustainable infrastructure for these institutions. The prevailing infrastructure should offer self sustainability to these institutions. The self sustainability of shadow banks, in a sense, is a conclusive aspect because of its systemic nature.

Sustainability of NBFCs can be viewed from the perspective of efficient utilization of resources that are significantly allocated to non banking financial companies, allocation to long term growth oriented ventures and consideration for society's developmental activities. How the NBFCs' sustainability contributes to the entire cream of any economy largely depends on the seminal performance of the pre allocated roles such as poverty alleviation, educational development, employment creation, infrastructural development, and capital formation. Generally these parameters are interconnected and the sum total will generate human welfare.

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