International Journal of Business and Management Invention
ISSN (Online): 2319 – 8028, ISSN (Print): 2319 – 801X
www.ijbmi.org Volume 2 Issue 5 ǁ May. 2013ǁ PP.01-06

Commercial Banks, Financial Inclusion and Economic Growth in India

Dr. Kabita Kumari Sahu

Lecturer in Economics, North Orissa University Baripada, Odisha, India

ABSTRACT: *The objectives of the paper are to understand the present status of India's financial inclusion, to estimate the financial inclusion index for various states in India and to study the relationship between Financial Inclusion Index and Socio-economic Variables. It is found that 72.7 percent of India's 89.3 million farmer households are excluded from formal sources of finance. The C-D ratios of foreign banks is 85.0 per cent, of regional rural banks is 59.9 per cent and of Private sector banks is 74.7 per cent which have increased in 2011 from their levels in the previous year (72.9 per cent, 58.3 per cent and 72.7 per cent respectively). No state in India belongs to high IFI group. The two states namely Chandigarh and Delhi belong to medium IFI, and rest of the states have low IFI values. The coefficients of PNSDP is positively associated with financial inclusion. Regression results reveal that 34 percent of the change in financial inclusion index is explained by per capita net state domestic product.*

Keywords: *Credit, Deposit, Financial Inclusion, Index, Growth*

I. INTRODUCTION

Financial inclusion is no less important than social inclusion. In India, millions of people are not considered for fair treatment either from the social institutions or from the financial institutions. It is commendable that, of late, the policy makers and banking institutions have come forward to address the issue of banking exclusion. Financial inclusion is a complex issue, not simple. There are issues in our approach. When the excluded sections approach formal financial institutions, they are confronted with problems of accessibility, timeliness, and inadequacy of credit. For one reason or other, they are compelled to approach the informal agencies to meet their credit demands as we all know. An all-out effort has to be taken to address these problems that are not simple. In the Index of Financial Inclusion (IFI) prepared by the Indian Council for Research on International Economic Relations (ICRIER), India has been placed 50th position in the list of 100 countries. The Index of Financial Inclusion, which measures the availability and usage of banking services, is based on indicators like the number of bank accounts per 1,000 adults, number of ATMs and bank branches per million people and the amount of bank credits and deposits. While economic growth in India has benefited a growing middle class, it has also created great disparities between urban and rural areas, prosperous and lagging states, and between skilled and low-skilled workers. Poverty is fuelled by a lack of access to social benefits, productive assets and financial resources. High levels of illiteracy, inadequate healthcare and extremely limited access to social services only aggravate the situation. Credit is one of the very important inputs of economic development. The timely availability of credit at an affordable cost has a big role to play in contributing to the well being of the weaker sections of the society. Proper access to finance to the rural people is a key requisite to employment, economic growth and poverty alleviation which are primary tools of economic development. Micro Finance, Self –Help Groups and Financial Inclusion are the three dimensional approach to achieve inclusive growth in the economy. In this context, the objectives of the study are to understand the present status of India's financial inclusion, to estimate the financial inclusion index for various states in India and to study the relationship between Financial Inclusion Index and Socio-economic Variables.

II. METHODOLOGY

As an inclusive financial system should be judged from several dimensions, a multidimensional approach is followed while constructing the index of financial inclusion (IFI). The approach is similar to that used by UNDP (offer expansion) for computation of some well-known development indexes, such as the HDI, the HPI, the GDI, and so on. As in the case of these indexes, proposed IFI is computed by first calculating a dimension index for each dimension of financial inclusion. The dimension index for the ith dimension, di, is computed by the following formula.2

di=Ai-mi/Mi-mi

where

Ai = Actual value of dimension I, mi = minimum value of dimension I

Mi = maximum value of dimension i

The formula ensures that $0 \leq di \leq 1$. The higher the value of di, the higher the country' s achievement in dimension i is. If n dimensions of financial inclusion are considered then, a country i will be represented by a point Di = (d1, d2, d3, !.dn) on the n dimensional Cartesian space. In the n-dimensional space, the point O = (0,0,0,…0) represents the point indicating the worst situation while the point I = (1,1,1,…,1) represents the highest achievement in all dimensions. The index of financial inclusion, IFIi for the ith country, then, is measured by the normalized inverse Euclidean distance of the point Di from the ideal point I= (1,1,1,….1). The exact formula is

$$IFI_i = 1 - \frac{\sqrt{(1-d_1)^2+(1-d_2)^2+\dots+(1-d_n)^2}}{\sqrt{n}}$$

Status of Financial Inclusion in India

It is estimated that, globally, over two billion people are excluded from access to financial services, of which one third is in India. "The Report of the Committee on Financial Inclusion" (January 2008) stated that 72.7 percent of India's 89.3 million farmer households are excluded from formal sources of finance (Table-1). To be specific, those excluded are marginal farmers who happen to be women, who are further excluded right from the first stage of perception. The highest percentage of farmer households excluded from formal source of finance is 95.91 % in the North-Eastern States followed by Eastern States. Financial exclusion is less in southern and western states. A larger part of India suffers from financial exclusion which restricts the inclusive growth of our nation.

Table -1 Regional distribution of Financially Excluded Farmer Households in India

Region	Name of States	% of Farmer Households Excluded from Formal Source of Finance
Eastern States	Bihar, West Bengal, Orissa, Jharkhand	81.26
Western States	Maharashtra, Goa, Gujarat	56.02
Central States	Madhya Pradesh, Uttar Pradesh, Uttarakhand, Chhattisgarh	77.59
Northern States	Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Rajasthan	74.95
North-Eastern States	Sikkim, Assam, Arunachal Pradesh, Manipur, Meghalaya, Tripura, Mizoram, Nagaland	95.91
Southern States	Karnataka, Andhra Pradesh, Tamil Nadu, Kerala	57.25

Source: The Report of the Committee on Financial Inclusion, January 2008

In recent years, financial inclusion has assumed public policy relevance. Many countries like India (Government of India 2008) and the United Kingdom (UK) (2006) and International organizations like the United Nations (2006), World Bank (2008, 2009) have set up task force/committees to understand financial inclusion and to improve its scope. These studies throw light on various aspects of financial inclusion.

Table-2 Commercial Banks and average population per Bank office as on March 2011

State/UT	No. of Bank Offices	pop^n. per Bank(in '000)	C-D Ratio	Saving A/C	Credit A/C	Per Capita	
						Deposit	Credit
Chandigarh	337	5117	119.8	2457216	229544	265188	342893
Delhi	2629	7407	80.8	30920716	2255705	347403	302580
Haryana	2690	9698	85.6	21452633	2084642	50993	36469
Himachal Prad	1077	6408	48.6	6640304	628278	48585	19218
Jammu & Kas	1041	11545	35.7	9099470	593969	34457	12801
Punjab	3895	7328	92.9	29961307	2309169	55545	42960
Rajasthan	4507	15586	95.8	31998632	4046950	18914	17024
Arunachal Prad	86	14430	27.4	667235	65833	43691	9831
Assam	1546	20324	38.9	14729086	1643562	19334	6887
Manipur	83	29506	36.6	700539	91437	14443	4733
Meghalaya	221	12078	29.6	1204583	137561	37379	8970
Mizoram	100	10141	49.8	411568	69508	26185	11265
Nagaland	95	24183	27.5	648501	98945	23410	5985
Tripura	247	15130	33.2	2147614	278101	24145	7575

Andam & Nico	**42**	**11762**	**39.1**	**318201**	**27872**	**36377**	**13745**
Bihar	**4323**	**23250**	**31.6**	**33758144**	**4724892**	**12193**	**3537**
Orissa	**3029**	**13730**	**55.7**	**22260468**	**3794085**	**25331**	**12984**
Sikkim	**82**	**7463**	**62.4**	**390470**	**37289**	**53938**	**20343**
West Bengal	**5678**	**16281**	**65.1**	**56465841**	**4263233**	**35011**	**22300**
Madhya Prad	**4453**	**16732**	**60.1**	**35066520**	**3566277**	**19332**	**11538**
Uttar Pradesh	**11040**	**18646**	**48.2**	**116258080**	**10171493**	**18611**	**8114**
Goa	**470**	**3962**	**31.1**	**3619735**	**225698**	**181239**	**52643**
Gujarat	**5073**	**12062**	**74.4**	**42418349**	**3630969**	**44304**	**29385**
Maharashtra	**8816**	**13391**	**75.0**	**85351042**	**24536456**	**130631**	**106217**
Andhra Prad	**7571**	**11505**	**114.9**	**73614383**	**14395731**	**34493**	**37927**
Karnataka	**6518**	**9445**	**76.3**	**53580133**	**9055892**	**58737**	**42599**
Kerala	**4690**	**7635**	**73.8**	**33860495**	**6394907**	**49344**	**35536**
Puducherry	**159**	**9151**	**63.7**	**1368486**	**277715**	**49971**	**30633**
Tamil Nadu	**6864**	**10217**	**119.4**	**62503282**	**17615071**	**50951**	**58141**
Chhattisgarh	**1423**	**17553**	**56.1**	**11215598**	**1045072**	**23614**	**12360**
Uttarakhand	**1278**	**7954**	**39.1**	**8484784**	**804614**	**49462**	**17399**
Jharkhand	**1984**	**16332**	**35.6**	**15951505**	**1604345**	**24211**	**8483**
Dadra & Nag	**34**	**10412**	**56.2**	**286419**	**7870**	**35028**	**12203**
Daman & Diu	**24**	**11739**	**43.8**	**256811**	**6440**	**62519**	**13074**
Lakshadweep	**12**	**6333**	**---**	**61203**	**4970**	**69211**	**5658**
All India	**92117**	**13147**	**75.6**	**810129353**	**120724095**	**46321**	**34800**

Source: Reserve Bank Statistics, 2011 & 2012

However, the measurement aspect of financial inclusion has, so far, not extensively been covered by these reports. For India, being a very well diversified economy and society, it is imperative to give adequate attention to measurement of financial inclusion by policy makers and researchers. Measurement of financial inclusion implies to evaluate the extent of accessibility, availability and usage of financial services like saving, credit, insurance, remittance facilities among many other such services. As shown in table-2, the All-India C-D ratio was at 75.6 per cent in 2011 compared to 73.3 per cent in2010.The population group-wise C-D ratio in respect of rural centers at the end of March2011 was at 60.0 per cent as per place of sanction of credit compared to 59.3 per cent in the previous year. In the case of semi-urban and urban centers the C-D ratios were53.2 per cent and 61.6 per cent respectively compared to 52.1 per cent and 59.1 percent in the previous year. The C-D ratios as per place of utilization for rural, semi-urban and urban centers were79.6 per cent, 63.1 per cent and 70.2 per cent, respectively, compared to 91.6 percent, 59.9 per cent and 62.8 per cent, respectively, in the previous year. The C-D ratio recorded in metropolitan centers as per place of sanction and utilization was 88.4 percent and 79.9 per cent respectively in 2011 (compared to 85.9 per cent and 77.4 percent, respectively, in 2010). The C-D ratio of SBI & associates was at 77.3 per cent in 2011 compared to 75.9 percent in the previous year while C-D ratio of nationalized banks was at 75.9 per cent(compared to 73.5 per cent). The C-D ratios of foreign banks (85.0 per cent), regional rural banks (59.9 per cent)and Private sector banks (74.7 per cent) have increased in 2011 from their levels in the previous year (72.9 per cent, 58.3 per cent and 72.7 per cent respectively).

Computation of Index of Financial Inclusion(IFI)

In the index of financial inclusion presented here, we consider three basic dimensions of an inclusive financial system: banking penetration (BP), availability of the banking services (BS) and usage of the banking system (BU). These dimensions are largely motivated by two factors -- data availability for a large number of countries and recent development in the literature

(i)Banking penetration. An inclusive financial system should have as many users as possible; that is, an inclusive financial system should penetrate widely amongst its users. The size of the “banked” population, i.e. number of people having a bank account is a measure of the banking penetration of the system. Thus, if every person in an economy has a bank account, then the value of this measure would be 1. In the absence of the data on “banked” population, we use number of bank accounts as a proportion of the total population as an indicator of this dimension.

(ii)Availability of banking services. The services of an inclusive financial system should be easily available to its users. Availability of services can be indicated by the number of bank outlets (per 1000 population) and/or by the number of ATM per 1000 people, or the number of bank employees per customer. In the absence of comparable data on the number of ATMs, we use the number of bank branches per 1000 population to measure the availability dimension.

Table- 3 Index of Financial Inclusion for the States of India

State	D1 (Penetration)	D2 (Availability)	D3 (Usage)	IFI	IFI Rank	PNSDP at current price
Chandigarh	0.002	0.638	0.455	0.311	2	128634
Delhi	0.136	1.000	0.294	0.356	1	150653
Haryana	0.192	0.094	0.142	0.142	23	94680
Himachal Pradesh	0.118	0.085	0.153	0.118	27	65535
Jammu &Kasmir	0.222	0.137	0.108	0.105	28	37496
Punjab	0.111	0.156	0.201	0.156	28	69737
Rajasthan	0.341	0.080	0.067	0.153	21	42437
Arunanchal Pradesh	0.424	0.113	0.050	0.179	13	55789
Assam	0.494	0.042	0.055	0.170	16	30569
Manipur	1.000	0.005	0.002	0.186	12	29684
Meghalaya	0.315	0.075	0.062	0.142	23	50427
Mizoram	0.244	0.056	0.018	0.101	29	48591
Nagaland	0.599	0.017	0.000	0.158	18	52643
Tripura	0.537	0.028	0.069	0.178	14	44965
Andaman & Nicobar	0.230	0.055	0.186	0.154	20	76883
Bihar	0.746	0.092	0.047	0.226	5	20708
Orissa	0.304	0.087	0.054	0.141	25	40412
Sikkim	0.147	0.178	0.076	0.132	26	81159
West Bengal	0.378	0.120	0.94	0.187	11	48536
Madhya Pradesh	0.568	0.095	0.051	0.203	6	32222
Uttar Pradesh	0.503	0.092	0.086	0.203	6	26355
Goa	0.019	0.202	1.001	0.270	4	168572
Gujurat	0.246	0.098	0.098	0.145	22	75115
Maharastra	0.275	0.485	0.127	0.281	3	83471
Andhra Pradesh	0.257	0.143	0.140	0.178	14	62912
Karnataka	0.172	0.262	0.168	0.200	8	60946
Kerala	0.127	0.154	0.198	0.159	17	71434
Poduchery	0.239	0.112	0.242	0.195	10	98719
Tamil Nadu	0.213	0.214	0.174	0.200	8	72993

Source: Handbook of Statistics, Reserve Bank of India

(iii)Usage. This dimension is motivated by the notion of "under banked" or "marginally banked" people. They have observed that "in some apparently very highly-banked countries, a number of people with bank account are nonetheless making very little use of the services on offer". In incorporating the usage dimension in our index, we consider two basic services of the banking system –credit and deposit. Accordingly, the volume of credit and deposit as proportion of the country's GDP has been used to measure this dimension.

Thus, considering the above three dimensions –penetration, availability and usage– we can represent a country i by a point (pi, ai, ui) in the three dimensional Cartesian space, such that 0 ≤ pi, ai, ui≤ 1, where pi, ai and ui denote the dimension indexes for country i computed using formula (1).

In the three dimensional Cartesian space, the point (0, 0, 0) will indicate the worst situation (complete financial exclusion) and the point (1, 1, 1) will indicate the best or ideal situation (complete financial inclusion). The IFI for the country i is measured by the normalized inverse Euclidean distance of the point (pi, ai, ui) from the ideal point (1, 1, 1). Algebraically,

$$\text{IFI} = 1 - \sqrt{\frac{(1-p_i)^2+(1-a_i)^2+(1-u_i)^2}{3}}$$

States are categorized into three types on the basis of following values of IFI
- 0.5 ≤ IFI ≤ 1 – High financial inclusion
- 0.3 ≤ IFI ≤ 0.5 – Medium financial inclusion
- 0 ≤ IFI ≤ 0.3 – Low financial inclusion

Observations from table-3 spreads a shocking note that no state in India belongs to high IFI group. The first two states namely Chandigarh and Delhi belong to medium IFI, and rest of the states have low IFI values.

III. FINANCIAL INCLUSION AND ECONOMIC GROWTH

The relationship between IFI and Per Capita Net State Domestic Product(PNSDP) is studied using regression . In the regression equation , the IFI variable is regressed over PNSDP which is proxy for income .

IFI= f(PNSDP) + U_i

IFI = 0.119 + 0.587PNSDP+ U_i,(Sig) 0.001

R^2 = 0.344

Table-4 IFI and Socio-Economic Indicators for the States in India

State	Literacy	Percapita income	Population	IFI	No of Branches	No. of SHGs	PNSDP at current p
Chandigarh	86.34	120912	1054686	0.311	337	964	128634
Delhi	86.43	116886	16753235	0.356	2629	3095	150653
Haryana	76.64	92327	25353081	0.142	2690	35319	94680
H. Pradesh	83.78	58493	6856509	0.118	1077	53113	65535
J & K	68.74	33056	12548926	0.105	1041	5569	37496
Punjab	76.68	67473	27704236	0.156	3895	40919	69737
Rajasthan	67.06	39967	68621012	0.153	4507	233793	42437
A. Pradesh	66.95	51644	1382611	0.179	86	7079	55789
Assam	73.18	30413	31169272	0.170	1546	245120	30569
Manipur	79.85	29684	2721756	0.186	83	10306	29684
Meghalaya	75.48	48383	2964007	0.142	221	10653	50427
Mizoram	91.58	45982	1091014	0.101	100	4592	48591
Nagaland	80.11	21434	1980602	0.158	95	9866	52643
Tripura	87.75	38493	3671032	0.178	247	34312	44965
Andaman	86.27	74340	379944	0.154	42	4750	76883
Bihar	63.82	20069	103804637	0.226	4323	248197	20708
Orissa	73.45	36923	41947358	0.141	3029	521152	40412
Sikkim	82.20	48937	607688	0.132	82	2811	81159
West Beng	77.08	41469	91347736	0.187	5678	666314	48536
M. Pradesh	70.63	27250	72597565	0.203	4453	153817	32222
U. Pradesh	69.72	26051	199581477	0.203	11040	470157	26355
Goa	87.40	132719	1457723	0.270	470	7926	168572
Gujarat	79.31	63961	60383628	0.145	5073	192834	75115
Maharashtra	82.91	83471	112372972	0.281	8816	760161	83471
Andh Prad	67.66	60458	84665533	0.178	7571	1466225	62912
Karnataka	75.60	59763	61130704	0.200	6518	564545	60946
Kerala	93.91	59179	33387677	0.159	4690	493347	71434
Poduchery	86.55	82767	1244464	0.195	159	22081	98719
TamilNadu	80.33	72993	72138958	0.200	6864	943098	72993

Source – RBI Statistics

The coefficients of PNSDP is positively associated with financial inclusion. R^2 value shows that 34 percent of the change in financial inclusion index is explained by per capita net state domestic product. Results of Correlation Study of the above Indicators-

Correlation between-

a. IFI and Per-Capita Income- 0.591 , significant
b. IFI & Literacy - 0.160
c. IFI & Population – 0.188
d. IFI & Branch Density – 0.210
e. IFI & PNSDP - 0.587
f. IFI & No of SHGs- 0.094

IV. CONCLUSION

Financial inclusion broadly means the provision of affordable financial services, viz., access to payments and remittance facilities, savings, loans and insurance services by the formal financial system to those who tend to be excluded. Access to financial services is in a very dismal state in the country. The key components of the 'inclusive growth' strategy includes a sharp increase in investment in rural areas, rural infrastructure and agriculture; spurt in credit for farmers; increase in rural employment through a unique social safety net; and a sharp increase in public spending on education and health care. There is a pressing need for making banking and financial services available to every part of the country. Also, in a country like India with diverse social and economic profile, financial education is particularly relevant for people who are resource poor and who operate at the margin and are vulnerable to persistent downward financial pressures. Reserve Bank clearly stated that an important criterion for processing the applications from private sector for entering the banking field would be their business model which should provide for financial inclusion. Banks still regard financial inclusion as an obligation and not as a business opportunity and, therefore, the reach of inclusion was less than desired. Banks should be asked to take up financial inclusion as a business opportunity to help the poor come under the banking operation net. A part, indeed an important part, of the mandate of central banks is financial stability and an essential prerequisite for financial stability is financial literacy and the central bank has a unique leverage in providing financial literacy.

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