

Section 2
Vision Statements and Design Principles

Chapter 2.1 Vision Statements

Providing access to high-quality financial services to all sectors of the economy, including low-income households and small businesses is a key goal of financial sector policy. This is motivated by the fact that; (a) there are well documented links between the extent of financial development and economic growth; (b) the depth and breadth of financial services access in the country could impinge materially on the conduct of monetary policy and the ability of the regulators to balance between inflation, growth, and unemployment concerns; and (c) development of market infrastructure such as payment systems has the ability to improve the efficiency of all firms and of the interaction of government with citizens. Given these inter-relationships, it is entirely legitimate for financial regulators to lay down financial depth and inclusion objectives that they need to facilitate and track, keeping in mind the broader perspective that any actions that they take must not impair the efficiency, effectiveness and stability of the financial system. In the event that there are explicit costs that have a pure redistributive character they must be borne explicitly by the government and not by the financial system. The report of the Rajan Committee (2009) placed “inclusion, growth, and stability as the three objectives of any reform process”⁵ and in the specific context of inclusion had expressed the hope that 90 per cent of Indian households should have a deposit account by the end of 2011⁶.

Given the focus of this Committee’s tasks, the very first term of reference for this Committee is to, “Frame a clear and detailed vision for financial inclusion and financial deepening in India”. The intent of these vision statements is to provide specific benchmarks to regulators to assess the quality of financial inclusion and deepening obtained in India. The Committee has gone about this task keeping in view the following four guidelines:

1. The vision should be sufficiently sharp to serve as a guide to action but also have the flexibility to adapt to the changing needs of the Indian economy.
2. The vision must be focussed on outcomes and be agnostic towards the specific institutional designs that deliver the eventual results. Advances in technology and financial markets are rapidly changing the nature of institutions.
3. The vision must be ambitious given the magnitude of the un-served population in India but it must also take cognizance of the ground-realities while thinking about near-term milestones.
4. The vision must not restrict itself to national aggregates. The provision of an increased quantum of comprehensive financial services in every region, sector and segment of the economy needs to be articulated wherever relevant, while framing the vision.

Vision Statements for Financial Inclusion and Financial Deepening in India

1. **Universal Electronic Bank Account (UEBA):** By January 1, 2016 each Indian resident, above the age of 18 years, would have an individual, full-service⁷, safe⁸, and secure⁹ electronic bank account.

This vision implies that at least 50 crore new, unique accounts are created by January 1, 2016. This is the date by which the Unique ID Authority of India (UIDAI) and the National Population Register (NPR) expect to substantially complete the task of issuing an Aadhaar number to every resident. The Aadhaar number and other forms of identification would have, between them, by then ensured that every citizen has adequate documentation. The Committee believes that in the presence of such documentation, the customer has the right to receive a bank account. The Reserve Bank of India (RBI) should put in place processes designed to ensure that such an account is indeed made available to every Indian resident above the age of 18 years by January 1, 2016.

The Committee recognises that “legal incapacity” imposed upon an individual by virtue of age or mental disability represents an enormous challenge that needs to be addressed. This is however a complex matter which would need to be examined by a group of experts before any specific approach towards addressing this issue can be recommended.

2. **Ubiquitous Access to Payment Services and Deposit Products at Reasonable Charges:** By January 1, 2016, the number and distribution of electronic payment access points would be such that every single resident would be within a fifteen minute walking distance from such a point anywhere in the country. Each such point would allow residents to deposit and withdraw cash to and from their bank accounts and transfer balances from one bank account to another, in a secure environment, for both very small and very large amounts, and pay “reasonable” charges for all of these services. At least one of the deposit products accessible to every resident through the payment access points would offer a positive real rate of return over the consumer price index.

Ensuring that these transaction points are within a fifteen minute walking distance for every resident would require that each square kilometre patch with at least 400 people would have 1 such point. The Committee believes that by January 1, 2016 it should be possible to ensure that 100 per cent of all such clusters, containing 400 people, have 1 transaction point.

3. **Sufficient Access to Affordable Formal Credit:** By January 1, 2016, each low-income household and small-business would have “convenient” access to formally regulated lenders that have the ability to assess and meet their credit needs, and offer them a full-range of “suitable” credit products, at an “affordable” price. By that date, each District and every “significant” sector (and sub-sector) of the economy would have a Credit to GDP ratio of at least 10 per cent. This ratio would increase every year by 10 per cent with the goal that it reaches 50 per cent by January 1, 2020

“Convenient” access to lenders would imply that at the level of every urban and rural centre, with a population of 10,000, there should be at least one formal lender physically present with the ability and willingness to provide a complete range of loan products, including short-term loans, long-term loans, and working-capital loans, both

on a secured and an unsecured basis for small businesses. In the context of a household this would include crop loans, loans to assist with consumption smoothing, housing loans, and education loans.

The Committee recognises the need for affordable credit even while acknowledging that pricing would vary depending on the underlying risk of the specific segment and cost-to-serve considerations. Given the high level of entry barriers and small size of the banking system, the price to the customer often varies significantly from what such considerations would imply. Therefore, strategies would have to be developed to address this concern and ensure that the price differentials between identically rated credit risks are minimal.

A growing body of empirical research produces a remarkably consistent narrative that the services provided by the financial system, especially credit, exert a first-order impact on long-run economic growth and poverty. For instance, an impact study of bank branches in rural India shows that output increased and poverty declined with greater access to finance¹⁰. Studies¹¹ have found that a 10 percentage point increase in the private credit-to-GDP ratio reduces the percentage of population in poverty by 2.5-3 percentage points. Cross-country analysis show that Gini coefficients (income inequality) fall more rapidly in countries with more developed financial intermediaries like banks and insurance companies. It has been estimated that with higher levels of financial development, the income of the poorest 20 per cent of the population grows faster than the national average and that the population under poverty falls rapidly¹². Further, financial development facilitates economic growth based on the rationale that financial development reduces the costs of external finance to firms. Studies have found that in a large sample of countries over the 1980s, industrial sectors that are relatively more in need of external finance develop disproportionately faster in countries with more-developed financial markets¹³.

Data from the World Development Indicators¹⁴ shows that by 2012 high income countries had attained an average Credit to GDP ratio of close to 200 per cent; middle-income countries 100 per cent (with China having crossed 150 per cent); low-income countries 40 per cent; and India as a whole 75 per cent. Based on this data and the arguments regarding the importance of credit deepening presented earlier, the Committee felt that while India as a whole may over time plan to take her credit to GDP ratio to a number above 100 per cent, in order to ensure that the absence of credit does not choke off the growth potential of an entire region of the country or a significant sector of the economy, a minimal credit to GDP ratio of 50 per cent by the year 2020, just above that already reached by even low-income countries, would be a reasonable one to aspire for.

- 4. Universal Access to a Range of Deposit and Investment Products at Reasonable Charges:** By January 1, 2016, each low-income household and small-business would have “convenient” access to providers that have the ability to offer them “suitable” investment and deposit products, and pay “reasonable” charges for their services. By that date, each District would have a Total Deposits and Investments to GDP ratio of at least 15 per cent. This ratio would increase every year by 12.5 per cent with the goal that it reaches 65 per cent by January 1, 2020.

It is envisaged that convenient access to deposit and investment products would be provided by a combination of payment access points and credit access points.

Starting with an aspiration of a 10 per cent credit to GDP ratio for each district and assuming a starting credit to deposit ratio of 67 per cent (which is close to the current number), a 15 per cent deposit to GDP ratio appears reasonable as a minimal

aspiration. The credit to deposit ratio is already showing an upward trend, therefore if the credit to GDP ratio does indeed cross 50 per cent in every district of India by January 1, 2020, it would be reasonable to apply a credit to deposit ratio of 77 per cent to arrive at an equivalent deposit to GDP aspiration of 65 per cent by that date.

- 5. Universal Access to a Range of Insurance and Risk Management Products at Reasonable Charges: By January 1, 2016, each low-income household and small business would have “convenient” access to providers that have the ability to offer them “suitable” insurance and risk management products which, at a minimum allow them to manage risks related to: (a) commodity price movements; (b) longevity, disability, and death of human beings; (c) death of livestock; (d) rainfall; and (e) damage to property, and pay “reasonable” charges for their services. By that date, each District would have a Total Term Life Insurance Sum Assured to GDP ratio of at least 30 per cent. This ratio would increase every year by 12.5 per cent with the goal that it reaches 80 per cent by January 1, 2020.**

It is envisaged that convenient access to insurance and risk management products would be provided by a combination of payment access points and credit access points.

A comparison with global averages of level of protection, measured as the ratio of the sum assured to GDP reveals that while this ratio is 58 per cent for India, it is much higher in other countries like the USA (191 per cent), Germany (105 per cent), France (97 per cent), South Korea (152 per cent) and Japan (321 per cent)¹⁵. From a field perspective, the average GDP for a Gram Panchayat in India is estimated to be about Rs.12 crore¹⁶ and the total Human Capital requiring coverage for an average rural household is about Rs. 3.5 lakh¹⁷. Assuming that the average population of a Gram Panchayat is 3,000¹⁸ (or 600 households), the Total Sum Assured required to cover the human capital of all earning members of the Gram Panchayat population is Rs. 21 crore. This implies that in order to cover the entire human capital of a Gram Panchayat, the Sum Assured to GDP ratio will be in the region of 175 per cent. As against this requirement, and in view of global benchmarks, the Committee believes that it is a reasonable goal to reach a Term Life sum assured to GDP ratio of 30 per cent by January 1, 2016, going up to 80 per cent over five years for each District.

- 6. Right to Suitability: Each low-income household and small-business would have a legally protected right to be offered only “suitable” financial services. While the customer will be required to give “informed consent” she will have the right to seek legal redress if she feels that due process to establish Suitability was not followed or that there was gross negligence.**

The “caveat emptor” principle that has underpinned India’s customer protection architecture has not created desired outcomes. The Committee believes that India needs to move to a customer protection regime where the provider ascertains through due process that the products sold or the advice given is suitable for the buyer considering her needs and current financial situation.

In addition, customers would also have ease of recourse to ex-post grievance redressal mechanisms. This would mean that they have access to a unified platform for grievance redressal across financial products and services. The grievance redressal agency would have a presence in every District in the country and customers would be able to register complaints over the phone, using text messages, internet, and with the financial services provider directly, who would then be required to forward the complaint to the redressal agency. The customers would have a right to speedy redressal of grievances and the right to appeal decisions of the redressal agency.

Vision Statements

In summary, the six vision statements for financial inclusion and deepening refer to:

1. A Universal Electronic Bank Account.
2. Ubiquitous Access to Payments and Deposit Products at Reasonable Charges.
3. Sufficient Access to Affordable, Formal Credit.
4. Universal Access to Investment Products at Reasonable Charges.
5. Universal Access to Insurance and Risk Management Products at Reasonable Charges.
6. Right to Suitability.

The goals laid out by these six vision statements and the desired outcomes for each of them are summarised below.

#	Vision	Goal	Desired Outcome
1	A Universal Electronic Bank Account	Each Indian resident, above the age of 18	100% by January 1, 2016
2	Ubiquitous Access to Payment Services and Deposit Products at Reasonable Charges	Full services access point within a fifteen minute walking distance from every household in India	Density of 1 per sq.km (with more than 400 people), across the country, by January 1, 2016.
		Reasonable Charges	Reasonable Charges
		At least one product with positive real returns	By January 1, 2016
3	Sufficient Access to Affordable Formal Credit	Credit to GDP Ratio in every District of India	10% by January 1, 2016
		Credit to GDP Ratio in every District of India	50% by January 1, 2020
		Credit to GDP Ratio for every "significant" sector of the economy	10% by January 1, 2016
		Credit to GDP Ratio for every "significant" sector of the economy	50% by January 1, 2020
		Convenient Access	Density of 1 per 10,000 people, across the country, by January 1, 2016
		Affordable Rates	Ordinal by risk level in the long-run after adjusting for "reasonable" transactions charges
4	Universal Access to a Range of Deposit and Investment Products at Reasonable Charges	Deposit & Investments to GDP Ratio in every District of India	15% by January 1, 2016
		Deposit & Investments to GDP Ratio in every District of India	65% by January 1, 2020
		Reasonable Charges	Reasonable Charges
5	Universal Access to a Range of Insurance and Risk Management Products at Reasonable Charges	Total Term Life Sum Assured to GDP Ratio in every District of India	30% by January 1, 2016
		Total Term Life Sum Assured to GDP Ratio in every District of India	80% by January 1, 2020
		Reasonable Charges	Reasonable Charges
6	Right to Suitability	All financial institutions to have a Board approved Suitability Policy	100% by January 1, 2016
		Presence of district level redressal offices for all customers availing any financial service	100% of districts by January 1, 2016

Vision Statements

The rest of the report articulates a set of principles that will guide the choice of one of more financial systems designs and recommends several specific strategies to achieve this vision and monitor the progress on achieving it.

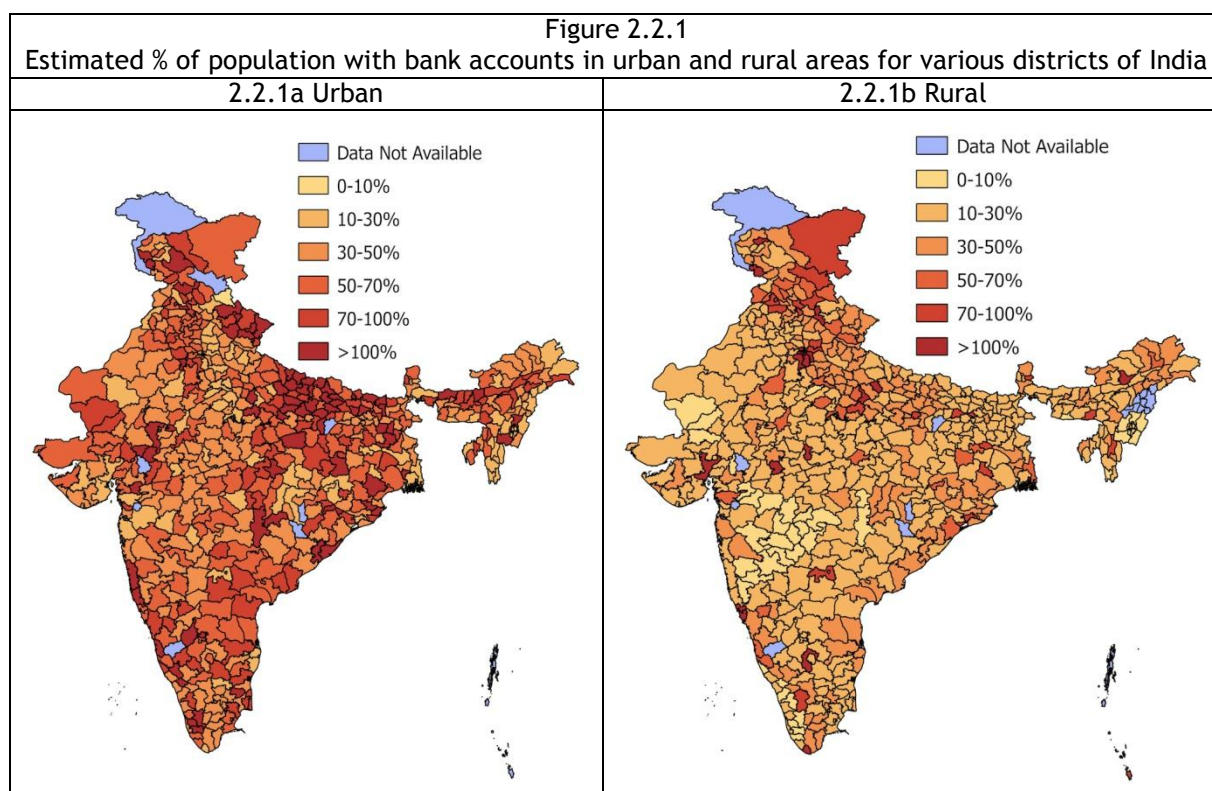
Chapter 2.2 Review of Current Status of Financial Inclusion and Financial Deepening

This chapter reviews the achievements of the Indian financial system so far, against each of the vision statements.

Vision 1: Universal Bank Account (UEBA): By January 1, 2016 each Indian resident, above the age of 18 years, would have an individual, full-service, safe, and secure electronic bank account.

Goal: 100 per cent achievement of the vision by January 1, 2016.

Current Status: The institutions that currently provide bank accounts include Scheduled Commercial Banks, Urban Cooperative Banks, Regional Rural Banks, and State and District Cooperative Banks. While available data provides an overall sense of savings bank account spread, it is not clear how many of these accounts are unique accounts as this data is not captured currently. Figures¹⁹ 2.2.1a and 2.2.1b provide an estimated number²⁰ and proportion of bank accounts available at a District level to urban and rural Indian residents respectively at the end of March 31, 2012.



This estimation yields a result of 36 per cent at an All-India level (which is commensurate with data from the World Bank Findex Survey which indicates that 35 per cent of the target population in India have at least one bank account²¹). It can be seen from the above data that the situation in both urban and rural India is very grim overall with only 45 per cent of the urban residents and 32 per cent of the rural residents having bank accounts. There is also significant variation from district to district even within that. In an urban context the current penetration of individual bank accounts, as proportion of the population of people above the age of 18 years, ranges from 10 per cent in Imphal East district of Manipur to 688 per cent in Wayanad district of Kerala, while in the rural context it ranges from close to 0 per cent in the districts of Nagaland to 89 per cent in Solan in

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Himachal Pradesh. And, even where there is good progress on this front, a large proportion of the bank accounts do not have full-service electronic capabilities.

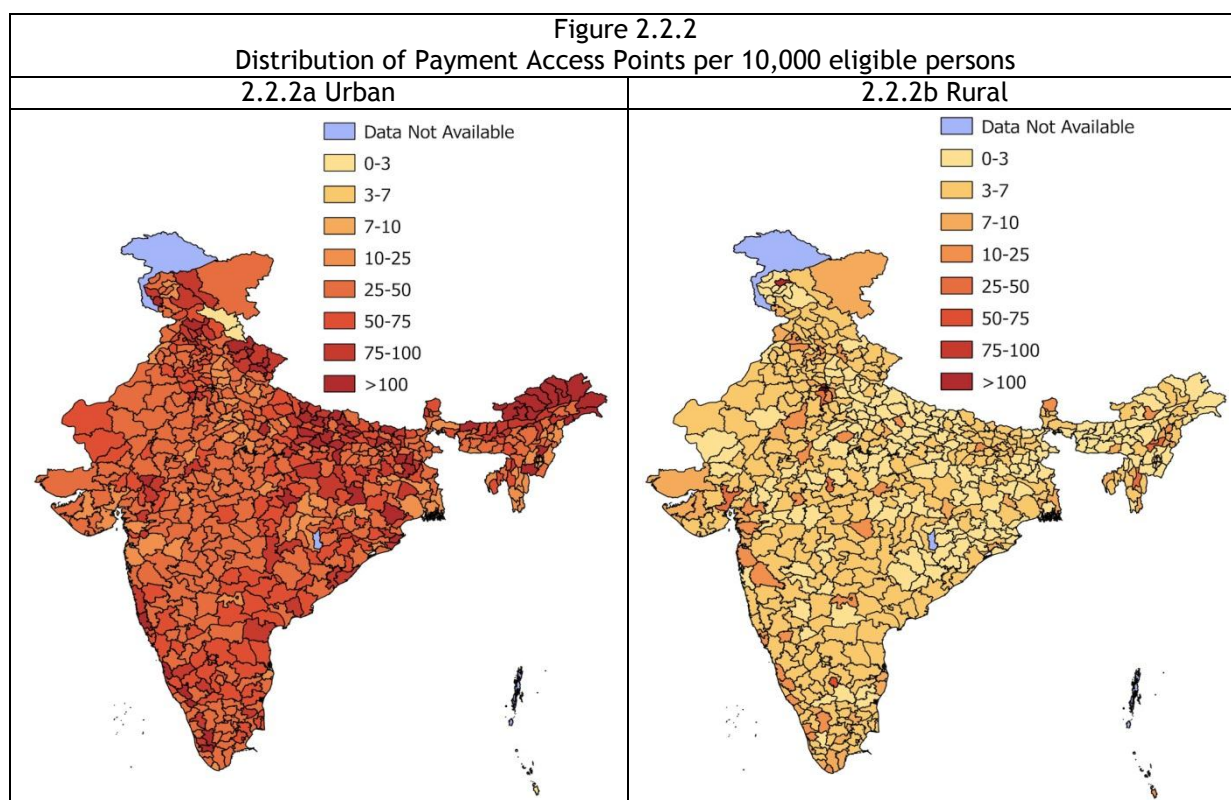
Vision 2: Ubiquitous Access to Payment Services and Deposit Products at Reasonable Charges: By January 1, 2016, the number and distribution of electronic payment access points would be such that every single resident would be within a fifteen minute walking distance from such a point anywhere in the country. Each such point would allow residents to deposit and withdraw cash to and from their bank accounts and transfer balances from one bank account to another, in a secure environment, for both very small and very large amounts, and pay “reasonable” charges for all of these services. At least one of the deposit products accessible to every resident through the payment access points would offer a positive real rate of return over the consumer price index.

Goal: A density of 1 access point per sq.km, with more than 400 people, across the country by January 1, 2016; “reasonable” charges; at least one deposit product with positive real-returns by January 1, 2016.

Current Status: Payment access points currently include bank branches, active business correspondent locations, and Automated Teller Machines (ATMs)²². There are also 8.45 lakh merchant Point-Of-Sale (POS) terminals in the country as on the end of March 2013²³. Almost all of these are operational in the urban areas and while they are not yet full-service since they do not have remittance and cash-in capabilities and limited cash-out capabilities (regulation permits only up to Rs. 1,000), they have a density of 25 per 10,000 in urban areas and could be permitted to offer a wider range of payments services to their consumers. Keeping this in mind, Figures 2.2.2a and 2.2.2b provide an estimated²⁴ distribution of all these access points including POS terminals at the District level for urban and rural areas respectively per 10,000 eligible persons (population aged 18 and above).

While exact data is not available at the level of detail that is required, it is clear from the Figures 2.2.2a and 2.2.2b that against an aspiration of 100 per cent of the population-groupings of 400 people each having 1 or more payment access points, the data available enables calculation only up to a district level. Using this data, it can be observed that while 89 per cent of districts have 25 or more payment access points per 10,000 population in urban areas, only 3 per cent of districts have the same in rural areas.

However, with small-format retailers²⁵, and mobile-recharge operators, each operating with a density of more than 10 per 10,000, if there is a way to also include even a portion of them within the payments access networks, it should be possible to expand this number considerably and reach the goal of having 25 such points in each and every part of the country (and thus one point per sq.km with more than 400 population).



As far as charges for the use of these services are concerned a very wide range prevails, as given in Table 2.2.1, with post offices for example, charging 5 per cent for their remittance services²⁶ and banks offering them for free for certain classes of their customers. Pre-paid Instrument Providers such as Airtel Money charge between 0.5 per cent and 3 per cent for their services²⁷.

Table 2.2.1 Indicative cost of transaction to the customer for a domestic remittance of Rs.5,000 through various channels	
Money Order, India Post	0.5%
Business Correspondent of SBI	2.0%
Airtel Money	0.5%

It can be seen from Table 2.2.2²⁸ on interest rates offered by banks in India, there is currently no product that offers a positive real rate of return on deposits.

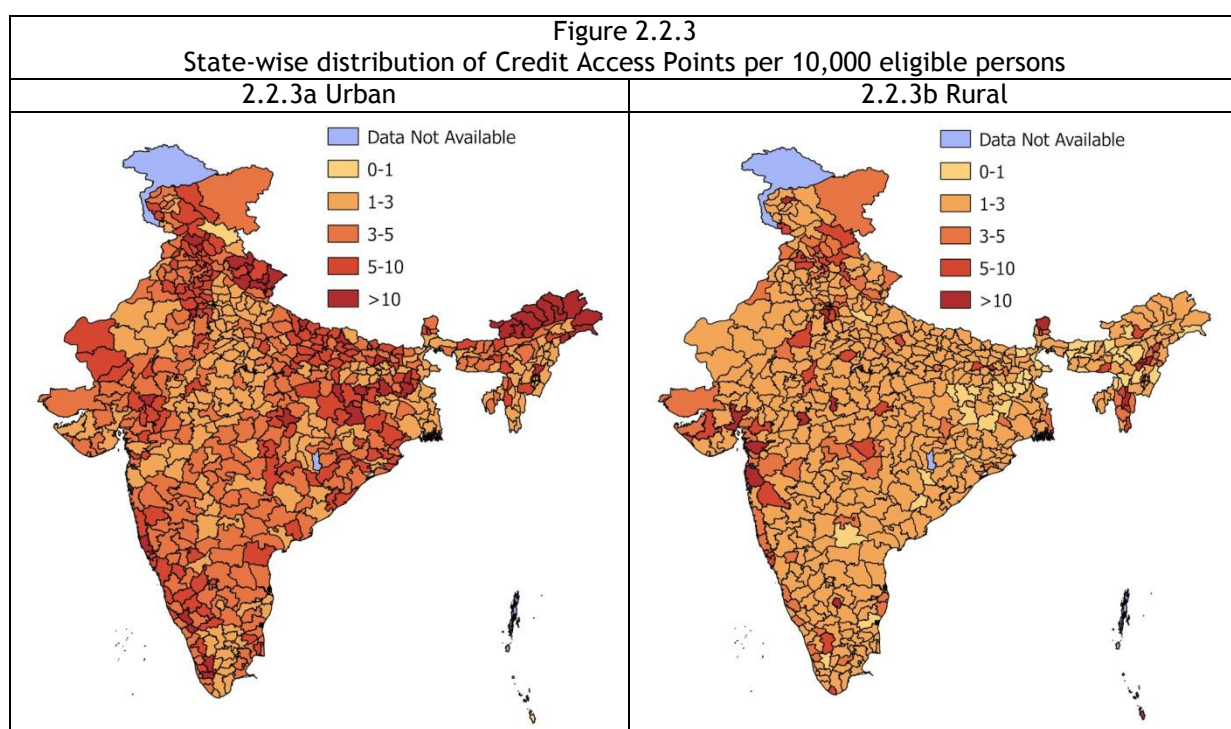
Table 2.2.2 Interest Rates Offered on Deposits on November 29, 2013			
Maturity	Nominal Rate	Inflationary Expectation	Real Rate
Savings deposit rate	4.00%	11.24%	-7.24%
Term deposit rate >1 year	9.05%	11.24%	-2.19%
Fixed deposit for 360 days	7.50%	11.24%	-3.74%
Fixed deposit for 720 days	9.00%	11.24%	-2.24%

Vision 3: Sufficient Access to Affordable Formal Credit: By January 1, 2016, each low-income household and small-business would have “convenient” access to formally regulated lenders that have the ability to assess and meet their credit needs, and offer

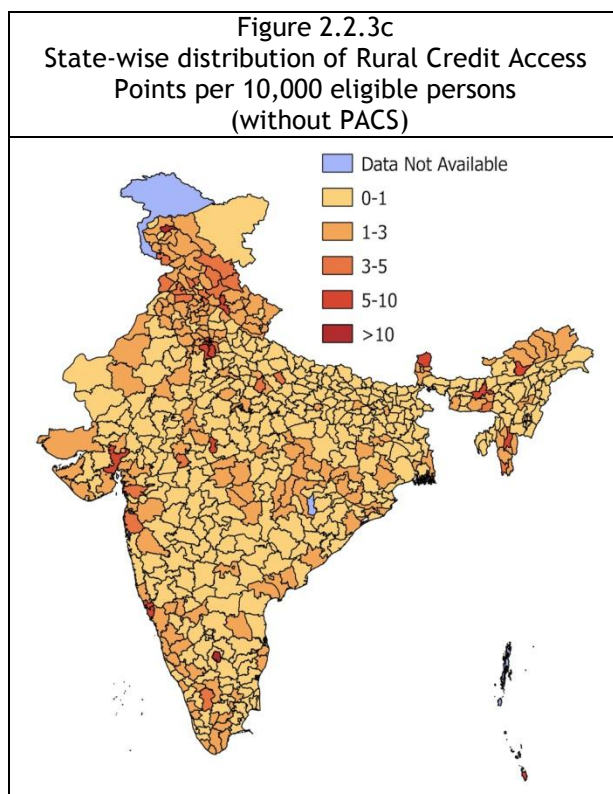
them a full-range of “suitable” credit products, at an “affordable” price. By that date, each District and every “significant” sector (and sub-sector) of the economy would have a Credit to GDP ratio of at least 10 per cent on January 1, 2016. This ratio would increase every year by 10 per cent with the goal that it reaches 50 per cent by January 1, 2020.

Goal: A Credit to GDP ratio of 10 per cent by January 1, 2016, increasing by 10 per cent every year until it reaches 50 per cent by January 1, 2020, in every District of the country and every “significant” sector of the economy. Full-service credit access points to have a density of 1 per 10,000 people, across the entire country, by January 1, 2016. And, in the long run, higher rated credits to have a lower rate of interest than lower rated ones after adjusting for “reasonable” transactions charges.

Current Status: Figures 2.2.3a and 2.2.3b provide an estimate²⁹ at a District level for distribution of credit access points in urban and rural areas respectively for 10,000 eligible persons.

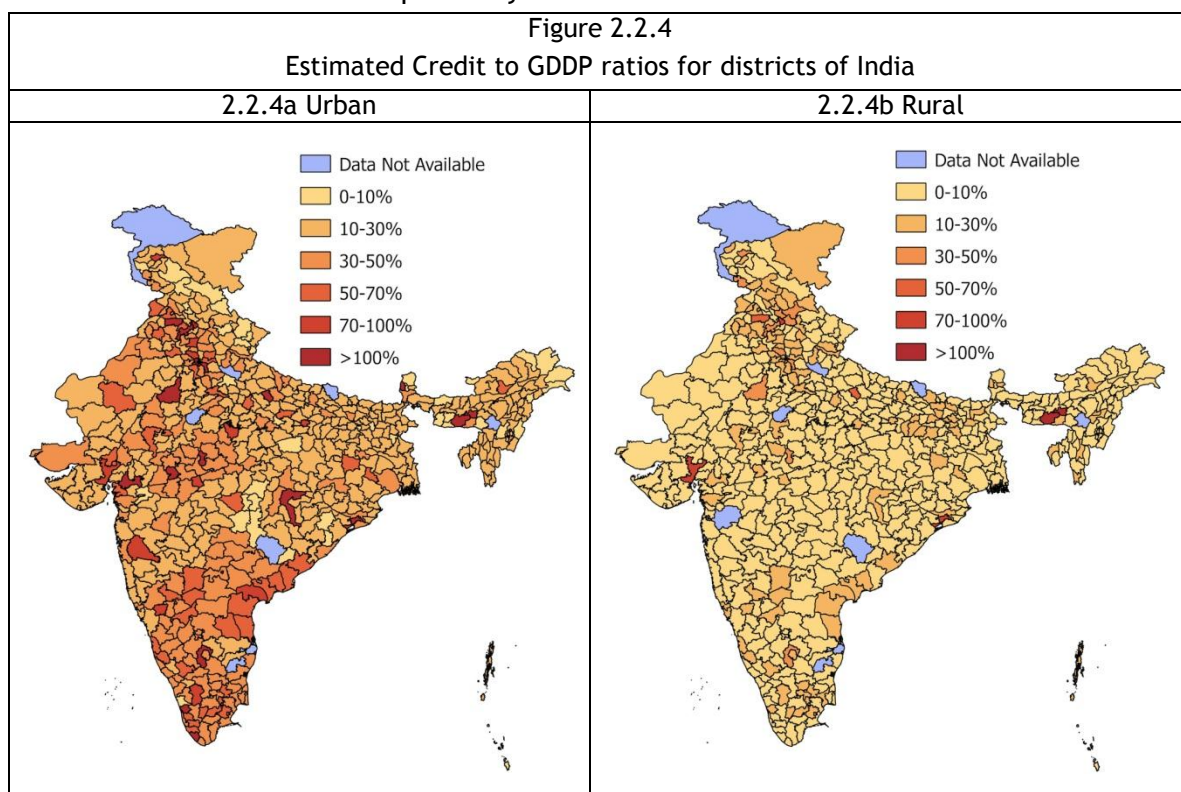


While exact data is not available at the level of detail that is required, it is clear from the above Figures that against an aspiration of 100 per cent of the population-groupings of 10,000 people each having at least 1 credit access point, at a District level, 99 per cent of such groupings within urban areas have at least 1 credit access point, and in rural areas this figure is 92 per cent. While this looks very positive on an overall basis, this will need to be verified using more exact data and, particularly the level of activity of Primary Agricultural Cooperative Societies (PACS) and the range of products they are able to offer. If the PACS access points are removed from the analysis, the picture changes substantially, as in Figure 2.2.3c.



From an earlier estimate of 92 per cent of population-groupings of 10,000 people each in rural areas having at least 1 credit access point, this figure now becomes 59 per cent when PACS are excluded.

Figures 2.2.4a and 2.2.4b give an estimated³⁰ district-wise break-up of credit to GDP ratios for urban and rural areas respectively.



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While exact data at the level of the District is not available and neither is the rural-urban break-up of that District level data, it is clear from the above figures that there is an extremely wide variation in the achievement levels. While about 94 per cent of the districts' urban areas have in excess of 10 per cent credit to GDP ratio, only 18 per cent of them are currently above the eventual target mark of 50 per cent. The situation in rural areas is much worse with only 30 per cent of the districts' rural areas currently having in excess of 10 per cent credit to GDP ratio with a mere 2 per cent of the districts above the eventual target mark of 50 per cent. This analysis reveals that despite a reasonable number of access points, financial depth indicators are lagging.

In terms of sectoral allocation of credit, Table 2.2.3³¹ indicates the differences in outstanding bank credit allocation with respect to the sectors' contributions to GDP.

Sectoral GDP (Rs. Crore)		Sectoral Credit (Rs. Crore)		Credit to GDP
GDP at Current prices, 2012-13	93,21,638	Gross Bank Credit of Scheduled Commercial Banks	48,61,345	52.0%
<i>Of which,</i>				
GDP of Agriculture and allied activities	16,44,834	Credit to Agriculture	5,89,914	35.9%
GDP of Industry	24,36,502	Credit to Industry	22,30,182	91.5%
GDP of Services	52,40,302	Credit to Services	20,41,249	39.0%
GDP contribution of Industry MSMEs	5,10,473	Credit to Industry MSMEs	2,84,348	55.7%
GDP contribution of Service MSMEs	10,97,899	Credit to Service MSMEs	2,77,947	25.3%

It is clear from Table 2.2.3³² that agriculture still has a distance to go before it reaches the 50 per cent depth mark even though it is above the 10 per cent mark. Industry MSMEs appear to have just above 50 per cent financial depth, while Service MSMEs have a much lower depth, at 25 per cent, and have a long way to go to reach the 50 per cent benchmark. This is corroborated by a micro-study of Bangalore Urban District conducted by Jana Foundation for the Committee which revealed that even though 70 per cent of micro-enterprises have a bank account, only 5 per cent have access to term loans and a mere 1 per cent has access to working capital loans from banks.

The goal of affordability has been interpreted to mean that clients with similar risk profiles should be able to access credit at similar rates after adjusting for "reasonable" levels of transactions charges. Gold loans are the lowest risk category of consumer loans. Table 2.2.4a³³ provides a comparison of the spread on these loans depending on the channel that is used. Table 2.2.4b³⁴ carries out a similar exercise for a broader category of loans.

Customer Class	Loan-to-Value	Interest Rate	LTV Adjusted Interest Rate ³⁵	Spread to Risk Free Rate ³⁶
Able to Access Bank	80%	12%	12%	3.23%
Able to Access NBFC	60%	24%	32%	23.23%
Unable to Access Bank or NBFC	80%	65%	65%	56.23%

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Customer Class	Expected Loss Rate ³⁷	Interest Rate	Adjusted Interest Rate net of expected loss	Spread to Risk Free Rate ³⁸
Personal Loan Borrower	5.80%	18.00%	12.20%	3.35%
SHG Borrower	7.08%	24.00%	16.92%	8.07%
JLG Borrower	0.40%	26.00%	25.60%	16.75%
Money Lender Borrower	0.40%	65.00%	64.60%	55.75%
Home Loan Borrower	0.43%	10.30%	9.87%	1.02%

From the two Tables it is clear that for a variety of reasons, which could include very high transactions costs, mispricing of credit risks, and differences in the cost of funds faced by different channels, even in the formal system there is a large distance to travel before the goal of ordinality can be satisfied.

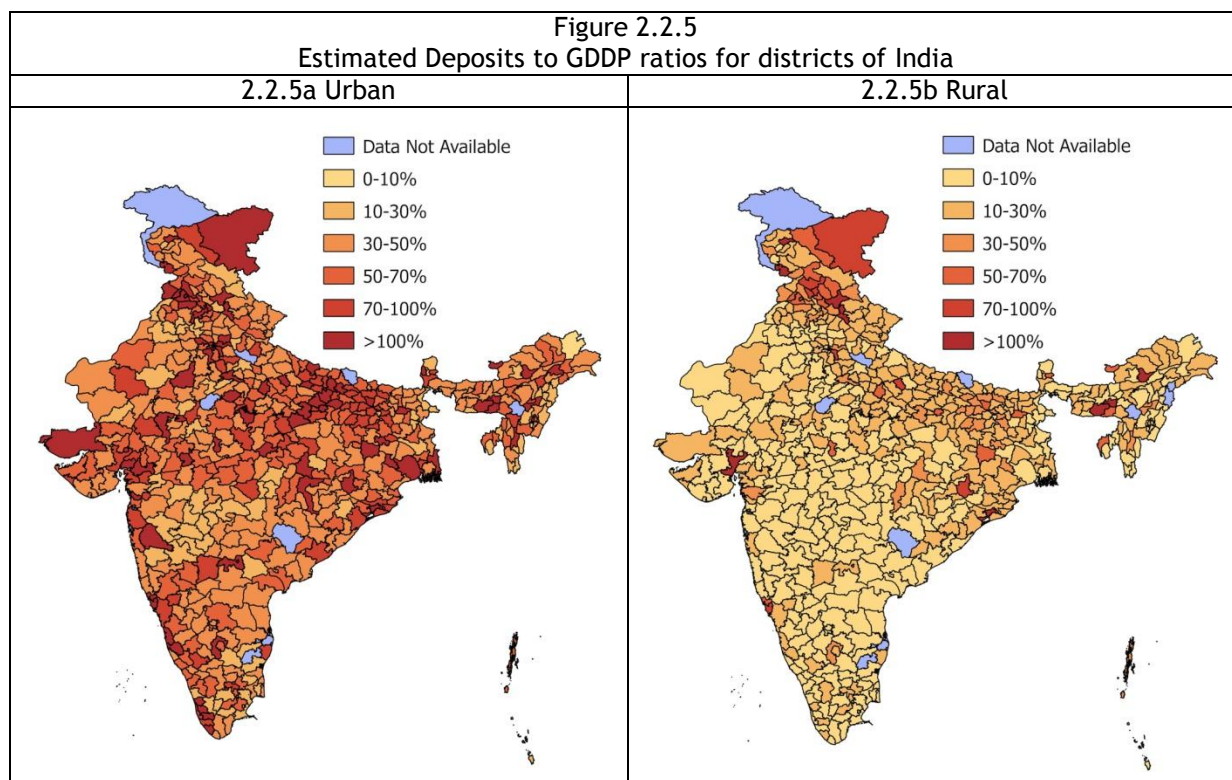
Vision 4: Universal Access to a Range of Deposit and Investment Products at Reasonable Charges: By January 1, 2016, each low-income household and small-business would have “convenient” access to providers that have the ability to offer them “suitable” investment and deposit products, and pay “reasonable” charges for their services. By that date, each District would have a Total Deposits and Investments to GDP ratio of at least 15 per cent. This ratio would increase every year by 12.5 per cent with the goal that it reaches 65 per cent by January 1, 2020.

Goal: A Deposit & Investments to GDP ratio of 15 per cent by January 1, 2016, increasing by 12.5 per cent every year until it reaches 65 per cent by January 1, 2020, in every district of the country.

For these services it is envisaged that a combination of Payment Access points and Credit Access points would be able to provide “convenient” access points.

Current Status: Figures 2.2.5a and 2.2.5b give an estimated district-wise break-up of Deposit to GDP ratios for urban and rural areas respectively³⁹. These deposits are the sum of savings, current and term deposits in banking institutions.

While exact data at the level of the District is not available and neither is the rural-urban break-up of that District level data, it is clear from the figure below that there is an extremely wide variation in the achievement levels. While 99 per cent of the districts’ urban areas have in excess of 15 per cent Deposit to GDP ratio, only 35 per cent of them are above the eventual target mark of 65 per cent. The situation in rural areas is much worse with only 36 per cent of the districts’ rural areas having in excess of 15 per cent Deposit to GDP ratio with only 4 per cent being above the eventual target mark of 65 per cent.



For Mutual Funds and investments into Provident Funds, Pension Funds, and various plans of Insurance Companies, while the detailed break-ups are not available, Table 2.2.5⁴⁰ gives the relevant ratios for each at the national level. Most of these amounts are likely to be concentrated in the urban areas (with the exception of postal savings) and may not change any of the above mentioned percentages significantly.

Table 2.2.5 Retail investments in other significant channels		
Channel	Investment Corpus / AUM	As a % of GDP for the year
Schemes offered at India Post	Rs.6,05,697 Crore	7.315%
Employees Provident Fund	Rs.3,73,645 Crore	4.513%
NPS	Rs.29,852 Crore	0.316%
Mutual Funds (Retail)	Rs. 1,52,483 Crore	1.612%

Table 2.2.6⁴¹ gives the approximate charges that are payable by a customer when she invests in a number of investment options.

Table 2.2.6 Transactions Costs for other Saving and Investment options		
Scheme	Amounts	Charges
Savings Account	For BSBDA, there is no minimum balance requirement. For Savings Accounts, banks can decide minimum balance	1% on an account balance of Rs.10,000
Fixed Deposit	Minimum Rs.1,000	Nil
Money Market Mutual Fund	UTI Money Market Fund requires a minimum investment of Rs. 10,000	Up to 4% for an investment of Rs.10,000

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Index Mutual Fund	The Quantum Index Fund (Liquid Fund) requires a minimum investment of Rs. 5,000	Up to 4% for an investment of Rs.10,000
Pension Fund	NPS-Lite	Up to 0.86% for contribution of Rs.10,000
Public Provident Fund	Rs.500 to Rs.100,000 per financial year, to be locked in initially for 15 years	Nil
Endowment Policy	An indicative number is Minimum of Rs.20,000 per annum for LIC's Endowment Plus Unit Linked Plan	Up to 11.9% in the 1 st year for an investment of Rs.20,000

From the Table 2.2.6 it can be seen that even for very standardised products, the costs of transactions vary a great deal and can be extremely high in certain cases.

Vision 5: Universal Access to a Range of Insurance and Risk Management Products at Reasonable Charges: By January 1, 2016, each low-income household and small business would have “convenient” access to providers that have the ability to offer them “suitable” insurance and risk management products which, at a minimum allow them to manage risks related to: (a) commodity price movements; (b) longevity, disability, and death of human beings; (c) death of livestock; (d) rainfall; and (e) damage to property, and pay “reasonable” charges for their services. By that date, each District would have a Total Term Life Insurance Sum Assured to GDP ratio of at least 30 per cent. This ratio would increase every year by 12.5 per cent with the goal that it reaches 80 per cent by January 1, 2020.

Goal: A Total Term Life Sum Assured to GDP Ratio of 30 per cent by January 1, 2016, increasing by 12.5 per cent every year until it reaches 80 per cent by January 1, 2020, in every District of the country.

Current status: It is not possible with currently available data to paint a picture of the depth of insurance penetration in terms of the sum assured measured as a per cent of GDP for rural and urban areas for each district.

Also, while India fares comparatively well when compared to other countries in terms of aggregate premiums to GDP, as given in Table 2.2.7⁴², it is not clear, with respect to life insurance premiums, the extent of term life insurance penetration.

	Life	Non-Life	Total
Australia	3.0%	3.0%	6.0%
UK	8.7%	3.1%	11.8%
USA	3.6%	4.5%	8.1%
India	3.4%	0.7%	4.1%
Brazil	1.7%	1.5%	3.2%
Russia	0.1%	2.3%	2.4%
Bangladesh	0.7%	0.2%	0.9%

Charges for products sold by insurance companies through their distributor channels vary based on the kind of product. Indicative charges are given in Table 2.2.8⁴³.

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Annual term life insurance policy	2.5% - 7.5%
Single premium Life Insurance policy	2% of the single premium
General Insurance such as Personal Accident Insurance, Property Insurance	Up to 15% of premium

Vision 6: Right to Suitability: Each low-income household and small-business would have a legally protected right to be offered only “suitable” financial services. While the customer will be required to give “informed consent” she will have the right to seek legal redress if she feels that due process to establish Suitability was not followed or that there was gross negligence.

Current Status: The current system of regulations that govern the sale of financial products and services is based on caveat emptor as a doctrine. Firms do not have the requirement around Suitability today and therefore none of the envisaged processes are in place yet.

#	Vision	Goal	Desired Outcome	Current Status
1	A Universal Electronic Bank Account	Each Indian resident, above the age of 18	100% by January 1, 2016	All India 36% with Urban India 45%; and Rural India 32%
2	Ubiquitous Access to Payment Services and Deposit Products at Reasonable Charges	Full services access point within a fifteen minute walking distance from every household in India	Density of 1 per sq.km with population of 400 people, across the country by January 1, 2016	Density ranges from 89% in Urban areas and 3% in Rural areas, calculated at a district level
		Reasonable Charges	Reasonable charges	Charges range from 0% to 5% for different classes of customers
		At least one product with positive real returns	By January 1, 2016	None; the best available rate is -1.95%
3	Sufficient Access to Affordable Formal Credit	Credit to GDP Ratio in every District of India to cross 10%	100% of districts by January 1, 2016	94% of the Urban areas and 30% of the Rural areas, calculated at a district level
		Credit to GDP Ratio in every District of India to cross 50%	100% of districts by January 1, 2020	18% of the Urban areas and 2% of the Rural areas, calculated at a district level
		Credit to GDP Ratio for every “significant” sector of the economy to cross 10%	100% of “significant” sectors by January 1, 2016	All sectors (agriculture, industry and services) appear to have crossed this limit however there are important sub-sectors that have not, such as Marginal, Small,

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				Medium and Large Farmers and Services MSMEs.
		Credit to GDP Ratio for every “significant” sector of the economy to cross 50%	100% of “significant” sectors by January 1, 2020	Only Industry as a broad sector has crossed this limit.
		Convenient Access	Density of 1 per 10,000 people, across the country, by January 1, 2016	99% in Urban areas and 92% in Rural areas, calculated at a district level. Excluding PACS, rural access drops to 59%.
		Affordable Rates	Ordinal by risk level in the long-run after adjusting for “reasonable” transactions charges	Very high levels of violations of ordinality within the formal system and in the economy as whole
4	Universal Access to a Range of Deposit and Investment Products at Reasonable Charges	Deposit & Investments to GDP Ratio in every District of India to cross 15%	100% of districts by January 1, 2016	99% of the Urban areas and 36% of the Rural areas, calculated at a district level
		Deposit & Investments to GDP Ratio in every District of India to cross 65%	100% of districts by January 1, 2020	35% of the Urban areas and 4% of the Rural areas, calculated at a district level
		Reasonable Charges	Reasonable charges	Charges range from 0% to 11.9% for different amounts and for different products
5	Universal Access to a Range of Insurance and Risk Management Products at Reasonable Charges	Total Term Life Sum Assured to GDP Ratio in every District of India to cross 30%	100% of districts by January 1, 2016	No Data
		Total Term Life Sum Assured to GDP Ratio in every District of India to cross 80%	100% of districts by January 1, 2020	No Data
		Reasonable Charges	Reasonable charges	Charges range from 2% to 15% on different products
6	Right to Suitability	All financial institutions to have a Board approved Suitability Policy.	100% of financial institutions by January 1, 2015	This is not required or present in any institution today.
		Presence of district level redressal offices for all customers availing any financial service	100% of districts by January 1, 2016	There are 15 offices of the Banking Ombudsman covering the entire country today and none that cover all financial services ⁴⁴ .

Chapter 2.3 Design Principles for Financial Inclusion and Financial Deepening

There are significant changes taking place within the Indian as well as the global financial system. These include fundamental changes in the needs of consumers, technological advances particularly in the fields of telecommunications and customer identification, and in the broad area of financial engineering. Ten years ago, for example, it would have been impossible to conceive of the possibilities that are emerging from advances in electronic payments and mobile banking. The danger of developing too specific or prescriptive of an approach towards comprehensive financial services is that it will become very quickly outdated and the design will begin to act as an impediment to change instead of being an enabler. To prevent this and to ensure that the progress towards the achievement of the vision proceeds in an orderly manner but continually benefits from all that is happening in the field of finance and other domains that intersect with it, the best way to proceed would be to “articulate broad principles that do not vary with financial or technological innovation” but instead have a “timeless” character⁴⁵. This chapter lays out the design principles which are expected to have such a character and around which specific strategies for comprehensive financial inclusion would be designed by various institutions.

Four broad design principles are proposed: Stability, Transparency, Neutrality, and Responsibility. Each is discussed in detail below:

Principle 1: Systemic Stability: Any design must seek to enhance stability of the financial system. Following the IMF-FSB-BIS definition, the Financial Sector Legislative Reforms Commission (FSLRC) defines systemic risk as “[a] risk of disruption to financial services that is caused by an impairment of all or parts of the financial system and has the potential to have serious negative consequences for the real economy.” For an emerging market like India, financial inclusion and depth are no doubt important public policy goals for reasons discussed in Chapters 2.1 and 2.2. However, extreme care needs to be taken to ensure that the attempts to accelerate progress on this front do not result in a low-quality financial system with increased instability. Such instability would hurt everyone, in particular low-income households. Every proposal that seeks to increase financial inclusion or depth must also be asked whether it will have a consequence of increasing, leaving unchanged, or reducing systemic risk and instability. This principle, however, must not be interpreted as a “do nothing” equilibrium because the broader risks of exclusion are also high. Investments must be made in enhancing regulatory capacity to support advances in financial inclusion and depth.

This principle also implies that the longer term “repeated game” implications of any policy or regulatory action must be carefully examined for issues such as creation of moral hazard. Individual institutions and participants must not have expectations of regulatory forbearance for certain actions, irrespective of the costs to the financial system.

In the United States, ownership housing for low-income households came to be viewed as an important policy goal by politicians, regulators and voters alike. This goal was sought to be realised through the financial system by the creation of Government Sponsored Enterprises (GSE) such as the Freddie Mac and Fannie Mae⁴⁶ and other measures, all of which resulted in the creation of an extremely poor quality portfolio of sub-prime loans on balance sheets of large banks and mortgage finance companies and transmitted via the securities markets to balance sheets of insurance companies and other market participants. This is an illustration of a well-intentioned policy goal that had a highly detrimental impact on the financial system. On the other hand, in an example from India, in order to pursue the goal of providing increased access to formal bank accounts and savings to households, the RBI in 2006 issued guidelines that permitted the creation of

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Business Correspondents that were expected to make it easier for households to access the banking system but importantly, the risks of the account would be borne by a regulated Bank. The systemic risk implications would have been very different if the regulator chose to achieve the same goal through the creation of lightly regulated deposit-taking entities.

One crucial tool to ensure Stability is capital, in adequate quantum for a given type of risk. The offering of financial services entails the assumption of three broad types of risks: (a) market (including liquidity) risk; (b) credit risk; and (c) operational (including settlement, legal and reputational) risk. Each entity that aspires to participate in this process, no matter how large or small its role, needs to clearly identify the specific risks to which it is exposed and to have an adequate amount of capital to absorb that risk. While it is generally accepted⁴⁷ that institutions that are permitted to warehouse insurance risks or hold deposits on their balance sheets, need to have a level of capital that reflects their underlying risk profile, it is often assumed that agents of financial institutions do not need to hold any capital at all. However, unless a financial institution is willing to accept complete financial responsibility for all aspects of the agents' behaviour and unconditionally surrender its right to repudiation and allow the agent to function under the Doctrine of Indoor Management⁴⁸, given the incomplete nature of the contract between the agent and the financial institution, each agent must have an adequate amount of financial capacity to absorb all the risks that are attendant with his role⁴⁹.

The Committee is also of the view that for Stability to obtain, providers must be financially sustainable. In the absence of this, their ability to generate capital is severely constrained and it is not clear if all the risks borne by them are being priced correctly. Under-pricing of risks can lead to build-up of asset bubbles.

Principle 2: Balance-sheet Transparency: Any design must require each participant in the system to build a completely transparent balance sheet in such a way that it reflects an accurate picture of its current status as well as the impact on this status of stress situations that the participant may encounter. For any financial institution the most important risks are embedded in its balance sheet and while in a "true but unobserved" manner, they evolve continuously; it can take an extended period of time, sometimes several years, before the risks become directly apparent. For a financial system to function well the true quality of the balance sheet must be made visible in a high-frequency manner and efforts must be constantly made to ensure that an accurate estimate is made of the true value of the each component of the balance sheet. This ensures that risks do not build-up in the system undetected and subsequently resolve with a catastrophic impact on the system; participants make every effort to manage these risks; and eventually the stronger participants grow and thrive while the weaker ones gradually fade away.

Once again here, this is not fundamentally at odds with a policy of financial inclusion and deepening. For example, if there is a policy goal of ensuring adequate financing to farmers, this does not by any means imply that the quality of such finance and its impact on the balance sheet of the lender must be opaque. Transparency in the quality of these assets provides important feedback loops for policy formulation and refinement as well as product design. In this example, in an extreme scenario, a case might emerge that the quality of assets is so poor and the resultant systemic risks significant enough that the policy goal is better achieved through direct cash transfers to the target farmers rather than intermediated through bank balance sheets.

Principle 3: Institutional Neutrality: Any design must ensure that the treatment of each participant in the financial system is strictly neutral and entirely determined by the role it is expected to perform and not its specific institutional character. In other words, function

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over form⁵⁰. Additionally, the financial system design must not be predicated on the existence of a subsidy from some parts of the financial firm's balance sheet to support other parts. While it may well be that individual firms strategically decide to cross-subsidise products or business lines, the design of the financial system should in no way force such a subsidy.

India has a wide range of entities that participate in the financial system. Amongst formal institutions there are several that are directly owned by the government, several that are entirely owned by the private sector, and others that have a cooperative character. For a variety of historical reasons regulatory structures have been designed separately for each type of institution to the point where there is a concern that the focus has moved from serving the end customer to preserving a certain institutional design. Variations in regulatory treatment have the potential effect of protecting weaker institutions and do not therefore allow the evolution of a robust market structure which encourages the stronger institutions and products to grow and the weaker ones to gradually fade away.

The report of the Rajan Committee (2009) stated that:

In an efficient financial system, the playing field is level so that different institutions compete to provide a function, no institution dominates others because of the privileges it enjoys, competition results in resources being allocated efficiently, and society gets the maximum out of its productive resources. This is also equitable for only thus will the interests of consuming masses be emphasized, instead of the more usual trend of privileged producers being protected.

Another form of Neutrality is internal to the Financial Institution. The financial systems design should not be predicated on parts of the balance sheet of a financial institution subsidising another portion. It is often argued that the fact that since commercial banks have privileged access to low-cost deposits in return they must pay a compensatory penalty and lend to certain sectors of the economy at negative rates of return⁵¹. This argument has a number of flaws. First, it treats savings as somehow being "inferior" or "less important" than loans - it is not at all obvious that at the level of a household this is indeed the case; and second, offering lower rates of interest to depositors results in a diversion of savings away from financial assets which on economy-wide basis reduces the supply of funds available for loans. And, in a market where the charter value of a bank is gradually eroding and new payment institutions are emerging, it is not clear how much longer the interest benefit from low-cost deposits will survive but any high cost infrastructure that is created in pursuit of such priority sector obligations could end up acting as a high "tax" for the financial institution and the financial system as a whole. This does not imply, however, that as a matter of its strategy, a financial institution cannot cross-subsidise products and activities or that a business group cannot cross-subsidise across its financial and non-financial service product lines. There may be competitive reasons to do so.

Principle 4: Responsibility towards the Customer: Any financial systems design must make it unnecessary for the household or the small business to build a full understanding of risks and Suitability as a pre-requisite for availing services but instead maintain the principle that the provider is responsible for sale of suitable financial services. This must be viewed in the context of persistent information asymmetries that are inherent in financial services. When a household or a small business buys services such as rainfall insurance or derivatives that it needs from a risk management perspective, it does so with very little ability to understand the precise nature of the risk it has taken on. That does not, however, mean that these services are not welfare-enhancing.

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Maximising the well-being of low-income households and small businesses requires the financial system to find a way to deliver to the customer all of the products that it is able to offer which may themselves have very complex designs but together serve to simplify the life of the customer and allow her to minimise the risks that she faces and maximise the benefit to her from the available growth opportunities. It also requires the financial system to ensure that all the participants directly facing the customer make every effort to offer only such welfare-enhancing products to the customer and are prevented from offering those that do not have this property.

In summary, the four design principles for financial inclusion and deepening are:

1. Stability
2. Transparency
3. Neutrality
4. Responsibility

Chapter 2.4 Banking Systems Designs

This chapter aims to provide a framework to understand various types of current and potential banking system designs. While there are many ways to specify this, the functional building blocks of payments, deposits and credit are used to construct two broad designs. These are the Horizontally Differentiated Banking System (HDBS) and the Vertically Differentiated Banking System (VDBS). Within each of these designs, there are multiple institutional categories that are explored.

In a HDBS design, the basic design element remains a full-service bank that combines all three building blocks of payments, deposits, and credit but is differentiated primarily on the dimension of size or geography or sectoral focus. This could also be referred to as an Institutional Design Configuration. In a VDBS design, the full-service bank is replaced by banks that specialise in one or more of the building blocks of payments, deposits, and credit. This could also be referred to as Functional Design Configuration. In reality, most banking systems will have a mix of both designs.

Horizontally Differentiated Banking System: The various configurations within HDBS are shown in the table below. In this design while all configurations are deposit-taking, the variations between them are on account of: (i) the ways in which they originate risks and transmit them throughout the system; and (ii) their size and focus - whether regional or sectoral. Each of the column types are defined below:

S.No:	DESIGN	REGIONAL / SECTORAL FOCUS	CAPITAL MARKETS	AGENTS
1	NATIONAL BANK WITH BRANCHES	NO	NO	NO
2	NATIONAL BANK WITH AGENTS	NO	NO	YES
3	REGIONAL BANK	YES	NO	NO
4	NATIONAL-CONSUMER BANK	YES	NO	YES
5	NATIONAL-WHOLESALE BANK	NO	YES	NO
6	NATIONAL-INFRASTRUCTURE BANK	YES	YES	NO

1. **Regional Focus:** This refers to their geographical focus which can either be national or regional.
2. **Sectoral Focus:** This could either be consumer or corporate banking or project finance.
3. **Capital Markets:** This refers to whether or not there is an interaction with capital markets from the point when an asset is originated to when it is warehoused.
4. **Agents:** This refers to whether or not the design requires the use of agents who are not direct employees, to reach the customer. These agents are principally characterised by their lowered transactions costs and the fact that they do not bring any risk bearing capacity at all in the form of capital especially with respect to lending.

This approach in theory produces sixteen potential designs but only the six mentioned in the table above are sufficiently distinct to represent fundamental design choices - the other ten are variations / hybrids of these basic six designs. Each of these six designs is discussed in some detail in the following paragraphs by invoking the previously stated design principles of Stability, Transparency, Neutrality, and Responsibility.

1. National Bank with Branches: This is a design in which the bank operates on a nationwide basis exclusively through owned branch networks and if it does use agents, it does so only very sparingly for transactions processing and not for origination. Within India, State Bank of India embodies this model on a national basis but several other supra-regional government owned banks such as Punjab National Bank and Bank of Baroda also represent this model. In aggregate, there are 105,753 branches across all scheduled commercial banks in India⁵².

This structure has several advantages in terms of: diversification across several regions as well as asset classes, lower cost of capital, and consistency of culture and operating environment and within India has done reasonably well in performing its role in an urban context. However, given its exclusive reliance on branches, it has been very challenging to create a network that is adequate to serve the entire Indian population living in over 25 lakh habitations⁵³. There is also evidence that forcing National Banks to extend reach in terms of branch networks is producing both high cost structures as well as non-performing assets⁵⁴. The very consistency of culture and operating environment makes it very difficult for such banks to adapt to local needs as well as effectively use “soft”, locally available information about small businesses and low-income households. It produces a tendency towards uniformity of processes and decision making structures as well as high costs that are not well suited to serve the wide variety of local customers that it encounters with each one representing higher levels of risk but relatively modest levels of revenue.

This design also tends to be opaque as there is no capital markets interaction anywhere in the sequence from origination to warehousing of assets and therefore, very few market signals other than equity price of the entire bank. A financial system that has only a few large National Banks, while easier to supervise centrally, also creates a stability concern stemming from the fact that the probability of failure of an individual Bank translating into a systemic event is high⁵⁵.

2. National Bank with Agents: This is a design in which there are large banks which may or may not have a large branch network despite their large balance sheet size and net worth. Private Banks such as ICICI Bank, Axis Bank, and HDFC Bank are good examples of such banks within the Indian context. In this design there is no use of Capital Markets but there is extensive use of Agents of various types. This design directly extends the reach of these banks through the use of individual or corporate agents who act as “pure agents” without any capital commitment whose operational cost structures are significantly lower than that of a bank branch.

In the context of financial inclusion, one specific type of Agent that has gained importance in recent years is the Business Correspondent (BC) of which there are over 2.2 lakh now. These are Agents that transact on behalf of the Bank, typically for deposits and payments. Brazil has had the most success with this approach through its Business Correspondent model but a review of the progress there finds that while these correspondents have effectively acted as good transactions points (payments, withdrawals, and deposits account for over 95 per cent of the transactions volume), opening of new bank accounts and provisions of loan accounts formed only 0.35 per cent of the transactions volume because the capital free nature of these agents does not provide the comfort with loan origination that Banks need. This picture is also true for Indian Banks that have deployed BCs. While the programme is still in its early stages and has the potential for deeper presence than the traditional bank branch, it needs to overcome several teething problems before it reaches full viability as a payments channel but it is not very clear if in its current form, as a dedicated channel, it will ever do so⁵⁶.

The available evidence suggests that while the National Bank with Agents design could eventually have some success at delivering payment services through its BCs, particularly in high revenue areas, there would be some significant credit risk if they were permitted to accumulate assets originated through BCs that do not bring any capital of their own with regard to the underwriting they carry out.

3. Regional Bank: This is a design in which there are several Regional Banks, each relatively small in size, that are full-service Banks (offering credit, deposits, and payments services). This design is also sometimes referred to as “Small Banks” or “Community Banks”. These are supervised directly by the national regulator and governed on a day-to-day basis by their local boards. While these banks may borrow some amounts in wholesale markets their principal source of funds is their local deposit base. A Regional Bank does not use Capital Markets for its resource raising nor does it use Agents in any form to reach its customers - its only means of serving customers is typically through its branches.

The country where this model of banking has historically thrived is the United States. It has 8,100 commercial banks, 1,200 Savings and Loans Associations, and 12,000 credit unions (cooperative banks). Its top ten banks have only 60 per cent of total assets compared to Canada or UK where 4 or 5 banks dominate the industry and have close to 90 per cent of the assets⁵⁷. Even in the USA though, despite its resilience, the model is in retreat⁵⁸ because National Banks and Non-Bank Financial Institutions have been able to bring both a wider range of products as well as lower cost of funds into the home markets of the Regional Banks. Developing countries that mandated community banks with low minimum capital requirements produced hundreds of institutions that have had solvency problems while not solving the inclusion problem (Nigeria, Tanzania) or have required intensive, subsidised upgrading programs (Philippines, Ghana). The jury is still out on Mexico, but risks are apparent. Supervisory capacity has been overwhelmed by many small institutions, leaving weaknesses uncorrected⁵⁹.

Regional Banks are likely to be able to process “soft” information for lending better than National Banks. However, their local nature also makes them more prone to “capture”. This could lead to persistent governance problems and owing to the higher exposure that they have to local systematic risk (weather, crop prices, and regional economic performance), they are likely to have to pay a higher rate to their depositors which in turn, might create the need to make “riskier” loans resulting in a vicious cycle of rising non-performing assets. The Regional Rural Bank which was conceived of as a subsidiary of larger National Banks was potentially a stronger design because it successfully dealt with the challenge of “capture” by local political interests owing to its relationship with its parent, but eventually did not perform as expected because gradually the culture and the cost structure of the parent National Bank permeated into the Regional Rural Bank as well and overwhelmed the attempts at building a truly regionally focussed institution. A design that seeks to significantly grow this category of institutions will place significantly higher regulatory and supervision demands. It is not clear that India is equipped for this. At the same time, there may be ways to leverage the existing network of these institutions in ways that don't create instability. All of these issues are discussed in greater detail in later chapters.

4. National-Consumer Bank: This is a type of National Bank design that focusses on consumer credit using sophisticated techniques such as credit scoring to deal with adverse selection and relying on collateral enforcement and credit reporting to address concerns relating to moral hazard. Some of the international banks in India have successfully used this strategy while building out their consumer finance and credit card businesses as have the domestic mortgage lenders. Sometimes this approach has been extended to small business lending as well. The credit risk often

remains high but is sought to be dealt with by charging very high interest rates. Developed financial systems infrastructure such as credit bureaus, and specialised collection agencies make the task of such lenders easier. However the experience of the US sub-prime crisis warns of the dangers of exclusively relying on credit-scoring approaches to origination⁶⁰ particularly in the “sub-prime” segment where the opacity of information is much higher. However, as “hard information” becomes more readily available, this route does represent an opportunity to extend credit on a nation-wide basis⁶¹, particularly for niche areas such as student loans. The Deposit taking NBFCs in India, including the Housing Finance Companies that take deposits from the public, may also be thought of as belonging functionally in this category.

5. National-Wholesale Bank: This is another type of the National Bank design which is not focussed on any particular region or sector. The asset creation activity of this bank is almost entirely in the form of wholesale loans to the corporate sector and purchases of high quality, rated, securitised and other assets from the capital market⁶², which include a substantial amounts of retail and small-business loans as well. They have no Agent networks but have a fairly high degree of interaction with capital markets as they constantly seek to optimise returns and portfolio quality. These institutions would be very large and would need to maintain very strong credit ratings and capital adequacy positions. These Banks could also emerge as strong investment banks as they seek to maximise returns on the high levels of capital required to maintain their ratings.
6. National-Infrastructure Bank: This is a variation of the Wholesale Bank wherein the institution focuses on one particular sub-segment of the wholesale market. It is not obvious that such an institution would need to be a full-service bank with deposit taking functions. It will need to diversify its balance sheet profile and actively manage it to ensure that it does not end up with high levels of concentration risks to particular sectors. The erstwhile DFIs were structured in this manner but because they failed to actively manage concentration risk they eventually failed. A current high-performing example is IDFC, which specialises in financing infrastructure projects without accessing public deposits.

Vertically Differentiated Banking Systems: This approach to design revisits the notion of a full-service bank itself and constructs different types of “banks” using the three building blocks of payments, deposits, and credit. Within India as well as around the world it is possible to find different examples of such specialised institutions such as the South Korean Post Office Bank (only payments and deposits), GE Capital (credit and payments), MasterCard and Visa (only Payments), India Post (deposits and payments), Mahindra Finance (credit and term deposits). The rationale for their existence is usually linked to niche capabilities such as credit under-writing for specialised business segments or network management in the case of payments. In this section, this approach to design is explored more fully, all the possibilities examined, and their merits and demerits discussed in some detail.

This approach produces five potential designs that are specified below:

S.No:	DESIGN	CREDIT	RETAIL DEPOSIT	PAYMENTS
1	PAYMENTS NETWORK OPERATOR	NO	NO	YES
2	PAYMENTS BANK	NO	YES	YES
3	FULL-SERVICE BANK	YES	YES	YES
4	WHOLESALE CONSUMER BANK	YES	NO	YES
5	WHOLESALE INVESTMENT BANK	YES	NO	YES

Each of these five designs is discussed in the following paragraphs.

1. Payments Network Operator: This is a dedicated payments company which does not accept deposits or issue electronic money (e-money) but merely routes payments from one point to another in an instantaneous manner, without holding any balances. In India, examples of this design include VISA, MasterCard, National Payments Corporation of India, and Corporate Business Correspondents such as FINO and White Label ATM providers such as Prizm⁶³.

A Payments Network Operator can be nested or independent. A Nested Payments Network Operator would need to partner with a bank (Sponsor Bank) to clear payments and the Sponsor Bank will participate in the payments network - the payments system would not directly deal with the Payments Network Operator. An Independent Payments Network Operator would directly participate in the payments system just like any other bank. This would include bank card network companies like VISA and MasterCard and also retailers that issue their own cards, such as Walmart. Currently India allows only Nested Payment Network Operators to operate but globally this is not always the case and if the size of the Payment Network Operator becomes large relative to its Sponsor Bank it could potentially create undesirable levels of contagion risks.

2. Payments Bank: This is a design that provides payment and deposits, but not credit. A Payments Bank may or may not pay interest on the account/wallet that it provides. Once again, a Payments Bank can be nested or independent. A Nested Payments Bank would need to partner with a bank (Sponsor Bank) to hold both the escrow account and to participate in the payments network. An Independent Payments Bank would be a direct participant in the payments system and instead of escrow balances with the sponsor bank would hold some combination of CRR and SLR directly with the Central Bank. Globally, in the inclusion context, Kenya's M-Pesa is the most successful example of a Nested Payments Bank. Over two thirds of Kenya's population now uses this service and about 25 per cent of the Kenyan GDP flows through it⁶⁴. A number of other products have started to be offered through the M-Pesa payments platform, including Bank deposits, loans and pre-paid electricity vouchers.

In India, Pre-Paid Instrument Issuers (PPIs) like Airtel Money and Oxigen are effectively Nested Payments Banks. They acquire the customer, issue a pre-paid wallet and facilitate transfer of value within their network (closed or semi-closed loops) or to a bank account outside their network (open loop). All balances in the wallets are held in escrow with a Bank and no interest is paid on such balances to the customer currently.

There is, however, a concern that nested designs in any form, including Nested Payments Banks create opacity. The Payments Bank has to take a view on the riskiness of its Sponsor Bank that holds its deposit balances and the Sponsor Bank has to worry about the operating quality and the likelihood of a "run" on its partner Payments

Bank. While today PPIs are not required to maintain capital, it would be important to evolve capital rules for operational risks and credit risk (of the Sponsor Bank) in the case of Nested Payments Banks and for operational and market risks in the case of the independent Payments Bank.

3. **Full Service Bank:** This is the traditional model of full-service banks whose variants are listed in Table 2.4.1.
4. **Wholesale Investment Bank:** This design is very similar to the Full Service Bank in the manner in which it operates on the asset side, but on the liabilities side it does not accept retail deposits (deposits less than Rs. 5 crore). The Wholesale Investment Bank does not make retail loans either, it only lends in niche wholesale markets such as infrastructure or corporates.
5. **Wholesale Consumer Bank:** Like the Wholesale Investment Bank, the Wholesale Consumer Bank also does not accept retail deposits. The Consumer Bank operates in retail lending, but could do this without necessarily building a large branch network, relying instead on sophisticated credit scoring methodologies.

Design Choices:

It would appear that a well-functioning financial system has a good mix of institutions that collectively meet the needs of the country while enhancing the stability of the system as a whole. Fortunately, in India, there are already many of the elements referred to previously and experience with multiple kinds of banking system designs. For example, India has significant experience of both the National Bank as well as the Regional Bank design. There are a robust set of NBFCs; and several PPIs are currently active. What is required is to evaluate these experiences systematically and accelerate the growth of the designs that seem to hold promise for financial inclusion and that are consistent with the design principles. Additionally, there is a need to enable significant partnerships between various institution types that leverage each of their strengths.

It has been argued that there are sound efficiency reasons for lending and deposit-taking to be combined in the same institution⁶⁵. However, these efficiency arguments can be dominated by effectiveness and risk management arguments if the same full-service banks turn out to be unsuited to the task for either building effective outreach or managing the associated credit risks. Additionally concerns regarding self-dealing are far more pronounced in the case of deposit taking institutions which are also authorised to lend, and may also end-up dominating the efficiency argument, particularly amongst financial institutions that have poor regulatory and market oversight. Within regional or sectorally focussed institutions, given the higher levels of risk implied by their lending portfolio and the inability of the local depositor to effectively diversify or even monitor the risk of the institution adequately, the depositor is likely to demand a risk premium which would increase the cost of funds of the financial institution by an amount greater than the efficiency gains implied by the sharing of the “liquid asset stockpile”. In the Indian context all of these concerns are visible and it would be important to have the regulatory flexibility to approach payments, savings, and credit independently (the Vertically Differentiated Banking Design) and to bring them together (the Horizontally Differentiated Banking Design) when the efficiency gains are high and the other costs are low. This is discussed in greater detail in subsequent chapters.