Irving Fisher Committee on
Central Bank Statistics

BANK FOR INTERNATIONAL SETTLEMENTS

IFC Workshop on Financial Inclusion Indicators

Co-hosted by Bank Negara Malaysia

5 – 6 Nov 2012, Sasana Kijang, Kuala Lumpur

Financial inclusion – issues in measurement & analysis[1]

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[1] This keynote address was prepared for the workshop. The views expressed are those of the author and do not necessarily reflect the views of the BIS or the central banks and other institutions represented at the workshop.

Financial Inclusion – Issues in Measurement and Analysis[1]

Introduction

Mr. Muhammad bin Ibrahim, Deputy Governor, Bank Negara Malaysia and Chairman, Irving Fisher Committee, Mr. Paul Van den Bergh, Head of Statistics, Bank for International Settlements (BIS), senior officials from Statistics departments of Central Banks and distinguished participants at the Workshop. I am delighted to be here for the Workshop on Financial Inclusion Indicators organized jointly by the Bank Negara Malaysia and the BIS.

The importance of financial inclusion, based on the principle of equity and inclusive growth, has been engaging the attention of policy makers internationally. Achieving universal financial inclusion is, indeed, a global objective and has multiple dimensions. While each jurisdiction will, perhaps, evolve its own delivery model, we need to learn from each other and implement what is suitable in each constituency[2].

The Irving Fisher Committee is engaged in statistical issues that are of interest to central banks worldwide. As we all know, Irving Fisher was not only a celebrated economist who gave us the Fisher equation of money and the theory of real interest rates, he was also a pioneer in the development of the theory of index numbers. He once observed "One of my chief objects has been to help make economics into a genuine science through careful and sound analysis, usually carried out with the help of mathematical methods and statistical verification."[3] I trust this workshop will help provide practical perspectives on the critical dimensions of measuring the depth of financial inclusion as also help streamline data availability and related issues. As the program structure aptly notes, financial inclusion principles and approaches have assumed an increasingly active role at the international level in developing new research agenda, setting standards and promoting best practices to improve financial inclusion. The focus on financial inclusion measurements and data gaps, that this Workshop seeks to achieve, is very much timely and important.

The agenda of this workshop is very appropriate as currently we lack reliable and granular data on financial inclusion, which restricts our ability to fully gauge the extent of exclusion and the ground-level impact of the initiatives being undertaken. We need to work out appropriate data structures and associated analytical frameworks for effective policymaking and the standardisation of various approaches at the national, regional and global levels. In order to appreciate the measurement and data needs, a broad understanding of the policy initiatives is

[1] Keynote Address by Dr. K. C. Chakrabarty, Deputy Governor, Reserve Bank of India at the BIS-BNM Workshop on Financial Inclusion Indicators at Kuala Lumpur on November 5, 2012. Assistance provided by Shri A.B. Chakraborty and Shri Bipin Nair in preparation of this address is gratefully acknowledged.

[2] "Financial Literacy and Consumer Protection – Necessary Foundation for Financial Inclusion", *RBI Bulletin*, May 2012.

[3] Irving Fisher and Index Number Theory, Discussion paper by Erwin Diewert, February, 2012.

important. Against this background, I propose to briefly focus on: (i) Approaches to financial inclusion – some international / national initiatives, (ii) Conceptual framework for measurement and analysis of financial inclusion, (iii) International initiatives in measuring financial inclusion and (iv)Indian perspectives. I will conclude with a few remarks.

Approaches to Financial Inclusion – International Initiatives

The origins of the current approach to financial inclusion can be traced to the United Nations initiatives[4], which broadly described the main goals of inclusive finance as access to a range of financial services including savings, credit, insurance, remittance and other banking / payment services to all '*bankable*' households and enterprises at a reasonable cost. The Report of the Centre for Global Development (CGD) Task Force on Access to Financial Services (October, 2009)[5] has laid down the broad policy principles for expanding financial access, including institutional mechanisms, with particular emphasis on the need for ensuring data collection, monitoring and evaluation. The G20 Toronto Summit (June, 2010) had outlined the "Principles for Innovative Financial Inclusion", which serves as a guide for policy and regulatory approaches aimed at fostering safe and sound adoption of innovative, adequate, low-cost financial delivery models, helping provide conditions for fair competition and a framework of incentives for the various bank, insurance, and non-bank actors involved in the delivery of a full range of affordable and quality financial services.

The global financial crisis has brought the need for financial inclusion into greater focus worldwide as it is believed that widespread incidence of financial exclusion was one of the factors that precipitated the financial crisis. While spread of financial inclusion is recognized through formal financial institutions such as banks, credit unions, post offices or microfinance institutions, the approach of keeping some/ all of these entities as a part of the core or as support players, varies from country to country. Besides, it is important to note that the defining principles of financial inclusion, coverage, role and responsibilities of institutions and measurement / monitoring requirements have been evolving over the years.

Financial Inclusion – National Initiatives

Several countries across the globe now look at financial inclusion as the means for a more comprehensive growth, wherein, each citizen of the country is able to use his/her earnings as a financial resource that they can put to work to improve their future financial status and simultaneously contribute to the nation's progress.

Initiatives for financial inclusion have come from the financial regulators, the governments and the banking industry. While the banking sector has taken several

[4] UNDP website: What is Inclusive Finance and UNDP Blue Book, 2006.

[5] Report of the Taskforce set up by the Centre for Global Development (October, 2009), Co-Chairs Patrick Honohan et al.

steps to promote financial inclusion, legislative measures have also been initiated in some countries. For example, in the United States, the Community Reinvestment Act (1977) requires banks to offer credit throughout their area of operation and prohibits them from targeting only the rich neighbourhood. The German Bankers' Association introduced a voluntary code in 1996 providing for an 'everyman' current banking account that facilitates basic banking transactions. In South Africa, a low cost bank account called 'Mzansi' was launched for financially excluded people in 2004 by the South African Banking Association. In the United Kingdom, a 'Financial Inclusion Task Force' was constituted by the government in 2005 in order to monitor the development of financial inclusion.

The history of financial inclusion in India is actually much older than the formal adoption of the objective. The nationalization of banks, Lead Bank Scheme, incorporation of Regional Rural Banks, Service Area Approach and formation of Self-Help Groups – all these were initiatives aimed at taking banking services to the masses. The brick and mortar infrastructure expanded; the number of bank branches multiplied ten-fold – from 8,000+ in 1969, when the first set of banks were nationalized, to 99,000+ today. Despite this wide network of bank branches spread across the length and breadth of the country, banking has still not reached a large section of the population. The extent of financial exclusion is staggering. Out of the 600,000 habitations in the country, only about 36,000+ had a commercial bank branch. Just about 40 per cent of the population across the country has bank accounts. The proportion of people having any kind of life insurance cover is as low as 10 per cent and proportion having non-life insurance is abysmally low at 0.6 per cent. People having debit cards comprise only 13 per cent and those having credit cards only a marginal 2 per cent of the population.

The National Sample Survey data (2002–03) revealed that nearly 51 per cent of farmer households in the country did not seek credit from either institutional or non-institutional sources of any kind. A number of rural households are still not covered by banks. They are deprived of basic banking services like a savings account or minimal credit facilities. The proportion of rural residents who lack access to bank accounts is nearly 40 per cent, and the figure rises to over three-fifths in the eastern and north-eastern regions of India. Accordingly, our primary objective is to take banking to all excluded sections of the society, rural and urban.

A more focused and structured approach towards financial inclusion has been followed since the year 2005 when Reserve Bank of India decided to implement policies to promote financial inclusion and urged the banking system to focus on this goal. Our focus has, specifically, been on providing banking services to all the 600 thousand villages and meeting their financial needs through basic financial products like savings, credit and remittance. The objectives of financial inclusion, in the wider context of the agenda for inclusive growth, have been pursued through a multi-agency approach. In 2006, the Government of India constituted a Committee on Financial Inclusion[6], which made a wide range of recommendations on the strategies for building an inclusive financial sector and gave a national rural financial inclusion plan. Government of India has set up the Financial Stability and Development Council (FSDC), which is mandated, *inter alia*, to focus on Financial Inclusion and Financial Literacy issues. In order to further strengthen the ongoing

[6] Chairman Dr. C Rangarajan.

financial inclusion agenda in India, a high level Financial Inclusion Advisory Committee has been constituted by RBI. The Committee would pave the way for developing a viable and sustainable banking services delivery model focussing on accessible and affordable financial services, developing products and processes for rural and urban consumers presently outside the banking network and for suggesting appropriate regulatory framework to ensure that financial inclusion and financial stability move in tandem. Financial sector regulators including RBI are fully committed to the Financial Inclusion Mission. I will cover this in more detail in a subsequent section.

Framework for Measurement and Data Analysis Requirements – Conceptual Issues

An essential pre-requisite for measurement is to understand the context and framework of financial inclusion. Any effort to measure the various dimensions of financial inclusion is not possible without explaining the context and framework. The basic framework for measurement of financial inclusion should cover some important dimensions.

First, financial inclusion, financial literacy and consumer protection are the three major planks of financial stability. While financial inclusion acts from the supply side, providing the financial market/services that people demand, financial literacy stimulates the demand side, making people aware of what they can demand. The demand side issues in financial inclusion include knowledge of financial products and services, credit absorption capacity, etc. These issues are faced by both developing and developed countries. The supply side issues cover financial markets, network of banks and other financial institutions, appropriate design of products and services, etc. These issues are mostly faced by the developing countries. A framework for financial inclusion needs to take into account various aspects such as the demand and supply side issues; assessment of enabling environment; issues in penetration, barriers to financial inclusion, etc.

Second, availability of appropriate financial products, including at the very least, savings products, emergency credit, payment products and entrepreneurial credit are important aspects of financial inclusion environment. Further, regarding ease of access, the various dimensions are timely access, distance, pricing and terms & conditions. In addition to this, the fairness & appropriateness of products is also an important dimension in the context of financial education of customers and for consumer protection.

Third, the monitoring framework should cover transaction level, customer level and products and services level monitoring, at the micro level. In addition, monitoring at the macro level is also an important dimension for assessment of the outcome of policy, viability of delivery models, etc. This calls for impact analysis and penetration studies.

Information needs vary based on progress in implementation of financial inclusion initiatives. Accordingly, information needs can be broadly categorized as those needed at Proposal/Definition stage, Environmental stage, Implementation stage, Monitoring stage and Overall Assessment stage. Some of the most basic indicators to measure access for brick & mortar structures include number of branches per 1000 population and number of ATMs per 1000 sq.km. On the other hand, for alternate banking outlets such as the Information and Communication Technology (ICT) based Business Correspondent (BC) Model, basic indicators include ratio of branches to BC outlets, number of villages covered per BC, etc. While monitoring products, data on number of products, types of products, return on products and their related characteristics are important. At the implementation & assessment stage, it is important to measure progress of initiatives through impact analysis and penetration of financial inclusion by studying the growth / changing pattern of customers and products, volume of transactions, returns on the products, etc. It is important to note that for macro and micro level impact studies, appropriately designed periodic surveys would be a useful tool. Surveys are also needed for assessing viability of delivery models, sustenance of initiatives, gauging the spread of financial literacy and measuring barriers to financial inclusion.

A robust financial inclusion design depends on a multiplicity of parameters encompassing varied socio-economic backdrops and feasible financial service delivery mechanism that would vary from region to region. This is particularly so for a country like India, which is distinguished by its vastness of topographical, demographic as also socio-economic diversity. Like any broad based financial system, financial inclusion measures and performance monitoring system require a rich body of performance data and analytics. Many a time, country comparisons brought out by international bodies based on their dedicated database dwells on much aggregative data comparison which, when seen granularly, bespeaks a different story. This is very relevant in financial inclusion analytics, which requires new kinds of identifiable indicators based on the evolving needs of financial inclusion plan and program.

Concepts and definitional issues

The fact that financial inclusion concepts have different meanings in different parlance has often led to difficulty in using a standard yardstick for benchmarking its policy parameters. The associated difficulties are that the targeted variables used for financial inclusion may differ from one country or organisation to another because of different institutional set up. Inherent weaknesses in the linkages between the financial inclusion database and welfare parameters of the society add to the complexity. Moreover, there are no agreed composite measures of financial inclusion which could facilitate comparisons across time and geography. Therefore, in order to ensure consistency and accuracy in measurement of financial inclusion parameters, it is essential that the parameters concerned are objectively defined in the first stage of the measurement process. As a way forward, we need to assess financial behaviour and understand where the challenges and opportunities lie for the future. To do that, we need high-quality, multi-dimensional, comparable financial inclusion data based on internationally standardized terms and concepts. As such, the measurement needs also include analytics for correct interpretation of data and establishment of international benchmarks.

Various dimensions of data on Financial Inclusion

There are several structural dimensions in the process of building up data on financial inclusion. These include:

(i) Measurement of the progress in financial inclusion initiatives by way of building up suitable indictors. Such indicators must contain data on access to (supply of) and usage of (demand for) financial services as well as their coverage and penetration. Measuring availability and actual use of deposit accounts, payment services, credit for poor households (micro-credit schemes), micro-level insurance products ought to be part of the framework.

(ii) The second aspect relates to understanding constraints or barriers for financial inclusion and development of indicators for assessing the same.

(iii) Another important dimension is the collection of transactional data on amount of credit extended, deposits placed, remittances made, etc. This is important in order to gauge the effectiveness of the financial inclusion initiatives. Merely opening of accounts without ensuring transactions undermines the beneficial impact of the financial inclusion measures.

(iv) Finally, diverse data are required to be pooled and benchmarked at international level. In this respect, one needs to take a stock of current status of data relevant for building up globally applicable indicators.

Basic data covering both the quantitative and qualitative aspects can be obtained through self-reporting templates by the formal financial intermediaries or by means of household surveys. There is also a need for international benchmarking of financial inclusion indicators as practices followed across the developed and developing economies can vary considerably. It is necessary to develop standard statistics on a comparable and consistent scale in order to set benchmarks and best practices for structuring plans for financial inclusion.

International Databases on Financial Inclusion Indicators

Financial Inclusion is fast emerging as a candidate for being a core driver of sustainable long-term economic growth and is, therefore, attracting the attention of central bankers and various global developmental and financial institutions. It is, however, emerging that a lot of ground remains to be covered in understanding the reach of the financial sector, and particularly, the degree to which vulnerable groups such as the poor, women, and youths are excluded from formal financial systems. Availability of systematic indicators of the use of different financial services needs to be improved in most economies and consequently, at the global level. It is heartening to note that multilateral organisations such as the World Bank and the International Monetary Fund (IMF) are paying attention to the development of relevant database, besides focussing on the issue of financial inclusion through policy prescriptions and guidelines.

The World Bank database, known as the Global Financial Inclusion database (Global Findex), provides survey based data as part of the annual Gallup World Poll. The survey conducted in 2011 covered at least 1,000 adults each in 148 economies using randomly selected, nationally representative samples. The focus of the Global

Findex Database encompasses a set of indicators that measure how adults save, borrow, make payments, and manage risk, stressing thereby on how a well-functioning financial system serves the vital purpose of offering savings, credit, payment, and risk management products to people with a wide range of needs. Inclusive financial systems allowing broad access to financial services, without price or non-price barriers to their use, are especially likely to benefit poor people and other disadvantaged groups. Without inclusive financial systems, poor people must rely on their own limited savings to invest in their education or for entrepreneurial activities, while small enterprises would need to rely on their limited earnings to take advantage of promising growth opportunities. This can contribute to persistent income inequality and slower economic growth. Findex reports data in terms of the proportion of people (of age 15+) for a number of parameters such as (a) who have saved money with financial institutions or other sources, (b) taken loan from financial institutions or other sources, (c) paid for health / agriculture insurance and (d) used cheques / electronic payment / mobile payment systems for financial transactions. The World Bank has released a research study on the database in April 2012. A snapshot of the data on some indicators for select countries is given in Annex 1. The study reveals that:

i) 50 per cent of adult population worldwide report owning an account with a formal financial institution, but actual operation and use of these accounts for transactions varies widely across regions and economies[7]. And when one starts probing the numbers granularly, the actual spread of financial inclusion indicators across countries would turn out to be wider.

ii) Financially excluded populace is predominant in developing countries, where only 41 per cent adults have a formal account, with only 37 per cent of women having formal account against 46 per cent of men; the gender gap widens further because of varying degrees of income inequalities observed among the developing countries.

iii) The cross country comparison would reveal that bank account penetration, measured as a per cent of adult population, varies widely across the countries. In high-income economies, account based financial inclusiveness is much higher with 89 per cent adults having accounts with formal financial entities. For India, account penetration is reported to be 35 per cent[8] (43.7 per cent for men and 26.5 per cent for women) while China scored better at 63.8 per cent (67.6 per cent for men and 60 per cent for women). South Korea reported high account penetration at 93 per cent, universality of education, and particularly, the spread of financial literacy.

iv) However, such aggregative nature of data masks many critical performance related information for understanding the depth and granularity at sub-national level. Another speciality of the database (FINDEX) used in the World Bank study is that it is a survey based reporting system which may have small sample biases and

[7] "Measuring Financial Inclusion", *Policy Research Working Paper*, 6025, World Bank. It is based on the first round of the Global Findex database based on indicators that measure how adults in 148 economies save, borrow, make payments, and manage risk. The indicators are constructed with survey data from interviews with more than 150,000 nationally representative and randomly selected adults age 15 and above in those 148 economies during the 2011 calendar year.

[8] RBI Annual Report 2011–12 (p. 88–92) contains the detailed India specific survey findings as per the World Bank's policy Research Working paper and latest status of Financial inclusion in India.

such constraints are natural for household surveys, particularly, when they involve people in the lower rung of the financial inclusion pyramid.

Likewise, the IMF has initiated the "Financial Access Survey" (FAS) in 2009, in an endeavour to put together cross country data and information relating to the issue of financial inclusion and has published the data in July 2012[9]. According to IMF, the FAS is the sole source of global supply-side data on financial inclusion, encompassing internationally comparable basic indicators of financial access and usage. It is the data source for the G-20 Basic Set of Financial Inclusion Indicators endorsed by the G-20 Leaders at the Los Cabos Summit in June 2012. The FAS database currently contains annual data, for the period 2004–2011, for 187 jurisdictions, including all G20 economies. The FAS data covers data on country-wise availability of bank branches and ATMs per 1000 sq.km. and per 100,000 adults, number of deposit and loan accounts with banks per 1000 adults and deposit-GDP and credit-GDP ratios. A glimpse of the data is given in Annex 2.

While such initiatives are most commendable and fill a major data gap at macro level, it has to be reckoned that data on financial inclusion is needed at both macro and micro levels. The latter can provide distributional characteristics of financial inclusion and is, therefore, crucial in the context of policy initiatives and assessing their outcome. Moreover, the IMF data reveals significant gaps at individual country level, which needs to be bridged so as to improve its utility.

Data on Barriers for Financial Inclusion

Even within the existing set of account based financial services, lot of variations exist in actual delivery models because of varied levels of technological absorption and cost of operation. No less binding are the legal and bureaucratic constraints and lack of appropriate infrastructure and financial literacy which requires to be countered in order to bring the financially excluded segments within the formal financial access network. For example, identifying unbanked segments for making them bankable is a challenging task, be it habitation, land ownership title or adopting a common authorised identification code. Benchmarking the data on constraints hindering progress in the financial inclusion initiatives would immensely help in identifying common concerns and replicating successful ideas across jurisdictions. In this regard, concerted international initiatives would help build up requisite data for good policy making.

Financial Inclusion Initiatives in India

I have already outlined some important milestones in the development of financial inclusion policy initiatives in India. A broad definition is adopted as follows:

"Financial inclusion is the process of ensuring access to appropriate financial products and services needed by all members of the society in general and vulnerable

9 For more, one may refer http://fas.imf.org/.

groups in particular, at an affordable cost in a fair and transparent manner by mainstream institutional players"

We have adopted a bank led model in India to introduce a bouquet of products related to savings, payments & credit together. It is recognised that only the mainstream banking institutions have the ability to offer the suite of products required to bring in effective/meaningful financial inclusion. Other intermediaries and technology partners such as mobile companies have been allowed to partner with banks in offering services collaboratively. In this context, it is necessary to point out that MFIs/NBFCs/NGOs on their own may not be able to bring about financial inclusion, as the range of financial products and services which are considered as the bare minimum for financial inclusion purposes, cannot be offered by them. But they play an extremely important role in furthering financial inclusion in the sense that they bring people and communities into the fold of the formal financial system[10].

Further, the initiatives are technology driven so as to make the financial services deliverable in a cost effective manner, tailor made by the market participants to best suit their requirements. RBI has encouraged the ICT model which would enable banks to overcome the barriers of geography and ensure efficient financial inclusion. The ICT based delivery model adopted should be technology-neutral to facilitate easy up-scaling and customization, as per individual requirements. Against this background, the major initiatives taken by RBI include the following:

i. Encouraged the SHG-Bank Linkage Model, one of the largest micro finance models in the world, under which 4.79 million SHGs have been credit linked, covering 97 million poor households (till March 2012).
ii. Mandated Commercial Banks including Regional Rural Banks to migrate to the Core Banking Platform.
iii. Substantially liberalised the BC based service delivery model in phases.
iv. Permitted domestic scheduled commercial banks to freely open branches in Tier 2 to Tier 6 centres.
v. Mandated banks to open at least 25% of all new branches in unbanked rural centres.
vi. Substantially relaxed the Know Your Customer (KYC) documentation requirements for opening bank accounts for small customers.
vii. Encouraged Electronic Benefit Transfer for routing social security payments through the banking channel.
viii. Pricing for banks totally freed; Interest rates on advances totally deregulated.
ix. Separate programme for Urban Financial Inclusion initiated.

Some important features of the strategic initiatives for spreading financial inclusion in India included:

i. A roadmap for providing banking services covering villages in a structured way. In the first phase villages with population above 2000 was targeted. The focus has now shifted to villages with population less than 2000.

10 "Financial Inclusion and Banks: Issues and Perspectives", *RBI Monthly Bulletin*, November 2011.

ii. Introduction of New Products – Making available a minimum of four banking products through the ICT based BC model.

iii. Our strategy has been to create an ecosystem comprising of a combination of branches and ICT based BC outlets for evolving an effective financial inclusion delivery model.

iv. In order to further facilitate financial inclusion, interoperability was permitted at the retail outlets or sub-agents of BCs (*i.e.* at the point of customer interface), subject to certain conditions, provided the technology available with the bank, which has appointed the BC, supported interoperability. However, the BC or its retail outlet or sub-agent at the point of customer interface would continue to represent the bank, which has appointed the BC.

v. Banks have been advised that they may set up intermediate brick and mortar structures (in rural areas) between the present base branch and BC locations, so as to provide support to a cluster of BCs (about 8–10 BCs) at a reasonable distance of about 3–4 kilometers. Such branches should have minimum infrastructure, such as a Core Banking Solution (CBS) terminal linked to a pass book printer and a safe for cash retention for operating large customer transactions and would have to be managed full time by bank's own employees. It is expected that such an arrangement would lead to efficiency in cash management, documentation, resolving customer grievances and close supervision of BC operations.

vi. The evolution of the BC model comprises of the following four stages:

- Stage 1: Mobile Business Correspondents
- Stage 2: Fixed Location Business Correspondent Outlets
- Stage 3: Low Cost Intermediate Brick & Mortar Structures (Ultra Small Branches)
- Stage 4: Full fledged Brick & Mortar Branches

vii. Financial Inclusion Plan (FIP) for Banks – All domestic commercial banks – public and private sector have drawn a Board approved three year FIP starting April 2010.

The banking system's three Year FIPs include parameters such as :

i. No. of branches opened, of which the no. opened in unbanked villages and in villages with population greater than or less than 2000

ii. No. of BC outlets opened

iii. No. of Basic Savings Bank Deposit Accounts opened

iv. No. of emergency credit (OD) provided

v. No. of Entrepreneurial credit (KCC/GCC) provided

vi. Transactions done in the above accounts through Brick & Mortar branches as well as through BCs

These initiatives are being closely monitored by the Reserve Bank of India through monthly reporting and annual comprehensive review.

Financial Inclusion Plan – achievements so far

A snapshot of the progress in certain key parameters in the recent period (March 2010 – June 2012) are given below (Details in Annex – 3):

i. Banking connectivity to more than 1,88,028 villages upto June 2012 from 67,694 villages in March 2010.

ii. All unbanked villages with population of more than 2000 persons, numbering around 74,000 are now connected with banks.

iii. Number of BCs increased to 120,098 from 34,532.

iv. More than 70 million basic banking accounts have been opened to take the total number of such accounts to 147 million.

v. About 36 million people/families have been credit-linked.

In the context of this Workshop it is important to note that there has long been a statistical system of capturing both macro and micro-level data on measurement of financial inclusion in India, at least in respect of deposit and credit. The database on bank branch network, led by scheduled commercial banks in India, give an idea about the reach of the formal banking system in the form of an indicative banking penetration measure such as average population per branch or number of deposit bank accounts per 1000 population. The data indicates that the branch network of scheduled commercial banks have increased during last five years, registering an improved coverage, in terms of population per branch, from 15,700 to 12,600. Among the newly opened bank branches during the year, the share of rural and semi-urban branches has gone up between 2007 and 2012. During the same period, there has been a marginal improvement in the share of deposit accounts in rural centres and loan accounts in semi-urban (Annex – 4). Such measures, however, do not throw light on the distributional aspect of the brick-mortar based branch network across regions or across the socio-economic spectrum of population.

There is, therefore, a need to further expand these databases in order to improve their utility as monitoring tools and MIS. There is also a lot to learn from the international experiences. We also need to draw out a standardised set of yardsticks that we would be using for measuring achievements as well as evaluating the various means to achieve the much desired goal.

Constraints to spread of Financial Inclusion

Quite clearly, the task of covering a population of 1.2 billion with banking services is gigantic. It is clear that out of 600 thousand villages, centres that could be covered by brick and mortar bank branch network are only around 36,000. It is well recognized that there are supply side and demand side factors driving inclusive growth. Banks and other financial services players are largely expected to mitigate the supply side constraints that prevent poor and disadvantaged groups from gaining access to the financial system. Access to financial products is constrained by several factors which include lack of awareness about the financial products, high transaction costs and products which are inconvenient, inflexible, not customized and of low quality. However, we must bear in mind that apart from the supply side factors, demand side factors such as lower income and /or asset holdings, financial literacy/ awareness issues, etc. also have a significant bearing on inclusive growth. Owing to difficulties in accessing formal sources of credit, poor individuals and small and micro enterprises usually rely on their personal savings and internal sources or take recourse to informal sources of finance to invest in health, education, housing and entrepreneurial activities. The mainstream financial institutions like banks have an important role to play in helping overcome this constraint, not as a social obligation, but as a business proposition. The major barriers cited to constrain extension of appropriate services to poor by financial service providers are the lack of reach, higher cost of transactions and time taken in providing those services, apart from attitudinal issues. In this regard, major barriers to financial inclusion require to be identified.

i) Demand side barriers are (a) Low literacy levels, lack of awareness and/or knowledge/understanding of financial products; (b) Irregular income; frequent micro-transactions; (c) Lack of trust in formal banking institutions; cultural obstacles (e.g., gender and cultural values).

ii) Supply side barriers are (a) Outreach (low density areas and low income populations are not attractive for the provision of financial services and are not financially sustainable under traditional banking business models); (b) Regulation (frameworks are not always adapted to local contexts), (c) Business models (mostly with high fixed costs); Service Providers (limited number and types of financial service providers) (d) Services (non-adapted products and services for low income populations and the informal economy); (e) Age Factor (Financial service providers usually target the middle of the economically active population, often overlooking the design of appropriate products for older or younger potential customers. There are hardly any policies or schemes for the younger lot or the old people who have retired, as the banks do not see any business from them); (f) Bank charges (In most of the countries, transaction is free as long as the account has sufficient funds to cover the cost of transactions made. However, there are a range of other charges that have a disproportionate effect on people with low income).

Concluding remarks

Let me now make some concluding remarks on the challenges to financial inclusion and, in particular, the measurement challenges. The issue of expanding the geographical and demographic reach poses challenges from the viability perspectives. Appropriate business models are still evolving and various delivery mechanisms are being experimented with. Financial literacy and level of awareness continue to remain an issue and the ICT Based BC Model is also taking time to stabilize. It calls for coordination of all the stakeholders like sectoral regulators, banks, governments, civil societies, NGOs, etc. to achieve the objective of financial inclusion. Challenges of financial exclusion are faced by most countries globally and each country has to develop its own customized solutions drawing upon its own experiences and those of its peers across the globe.

On the measurement challenges, first, it needs to be reckoned that financial inclusion concepts, policies, delivery models and implementation processes are still evolving. It is, therefore, essential that the policy for achieving total financial inclusion also keeps changing to adapt to the needs of the environment. This poses challenges for measurement of various financial inclusion initiatives as also their aggregation across activities, institutions, regions and so on. Statistical analysis of performance of financial inclusion initiatives and development of benchmarking standards can be quite complex. Second, while existing initiatives in measuring financial inclusion are commendable, there is a need for greater focus on the micro and distributional dimensions. Third, we should explore the need to change the focus of present information systems of banking business from traditional accounting model to customer centric business model. This would call for expanding the scope of the currently used measures of financial inclusion.

I would end by once again thanking the organizers for inviting me to this forum which, I am sure, will generate valuable debate and insight and come up with practical solutions to the measurement challenges faced in the global movement towards financial inclusion. I wish the Workshop all success.

Annex 1

World Bank's FINDEX – Select Indicators on Financial Inclusion – 2011 (Proportion of Population of Age 15+)							
Indicator Name	**United States**	**United Kingdom**	**Germany**	**Russian Federation**	**Brazil**	**China**	**India**
CREDIT:							
Loan from a financial institution in the past year	20.1	11.8	12.5	7.7	6.3	7.3	**7.7**
Loan from a financial institution in the past year, income, bottom 40%	17.6	11.1	12.3	6.3	3.5	7.7	**7.9**
Loan from a financial institution in the past year, income, top 60%	22.3	13.2	13.7	8.7	8.2	7.0	**7.5**
Loan in the past year	44.6	28.8	25.3	31.9	23.8	29.4	**30.6**
Loan in the past year, income, bottom 40%	45.1	28.1	25.4	32.1	19.7	32.4	**35.7**
Loan in the past year, income, top 60%	44.2	30.2	24.6	31.7	26.6	27.3	**24.9**
INSURANCE:							
Personally paid for health insurance	NA	NA	NA	6.7	7.6	47.2	**6.8**
Purchased agriculture insurance (% working in agriculture, age 15+)	NA	NA	NA	3.7	11.2	7.2	**6.6**
PAYMENTS:							
Checks used to make payments	65.5	50.1	7.2	5.2	6.7	1.8	**6.7**
Electronic payments used to make payments	64.3	65.3	64.2	7.7	16.6	6.9	**2.0**
Mobile phone used to pay bills	NA	NA	NA	1.7	1.3	1.3	**2.2**
SAVINGS:							
Saved at a financial institution in the past year	50.4	43.8	55.9	10.9	10.3	32.1	**11.6**
Saved at a financial institution in the past year, income, bottom 40%	32.1	43.5	55.1	8.8	5.8	18.3	**10.4**
Saved at a financial institution in the past year, income, top 60%	66.5	44.3	60.0	12.4	13.3	41.7	**12.9**
Saved any money in the past year	66.8	56.7	67.3	22.7	21.1	38.4	**22.4**
Saved any money in the past year, income, bottom 40%	51.5	56.2	67.1	18.9	12.1	23.3	**19.4**
Saved any money in the past year, income, top 60%	80.2	57.7	68.1	25.4	27.1	48.9	**25.8**
NA: Not Available							

Annex 2: IMF's FAS Database - Select Indicators on Financial Inclusion

	United States		United Kingdom		Germany		Russian Federation		Brazil		China		India	
	2005	2011	2005	2011	2005	2011	2005	2011	2005	2011	2005	2011	2005	2011
ATMs per 1,000 km	43.2	NA	240.9	NA	NA	NA	1.7	11.2	17.4	20.6	NA	NA	NA	25.4
ATMs per 100,000 adults	168.6	NA	117.9	NA	NA	NA	22.8	152.9	108.9	119.6	NA	NA	NA	8.9
Commercial bank branches per 1,000 km	8.5	9.6	58.0	NA	40.9	NA	2.1	2.7	NA	7.9	NA	NA	23.2	30.4
Commercial bank branches per 100,000 adults	33.1	35.4	28.4	NA	20.2	NA	28.4	37.1	NA	46.2	NA	NA	9.0	10.6
Deposit accounts with commercial banks per 1,000 adults	NA	NA	NA	NA	NA	NA	NA	NA	705.7	1032.7	NA	NA	607.3	953.1
Household deposit accounts with commercial banks per 1,000 adults	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	576.6	853.0
Household loan accounts with commercial banks per 1,000 adults	NA	NA	NA	NA	NA	NA	NA	NA	NA	747.4	NA	NA	7.4	20.6
Loan accounts with commercial banks per 1,000 adults	NA	NA	NA	NA	NA	NA	NA	NA	NA	853.7	NA	NA	100.4	142.0
Outstanding deposits with commercial banks(Percent of GDP)	48.0	57.8	356.5	422.8	20.1	27.6	18.7	45.0	34.0	53.3	123.2	159.3	47.3	68.4
Outstanding loans from commercial banks (Percent of GDP)	48.9	46.8	377.6	460.0	24.7	24.2	29.5	63.9	21.2	40.3	85.3	108.7	31.2	51.8

NA: Not Available

Source: IMF's Financial Inclusion Survey July 2012.

Annex 3: Progress of banks[11] in Financial Inclusion Plan in India

SR	Particulars	Year ended Mar 10	Year ended Mar 11	Year ended Mar 12	Quarter ended June 12	Progress April 11–March 12
1	Total No. of Branches	85457	91145	99242	99771	8097
2	No. of Rural Branches	33433	34811	37471	37635	2660
3	No. of CSPs Deployed	34532	60993	116548	120098	55555
4	Banking outlets in Villages with population >2000	37791	66447	112130	113173	45683
5	Banking outlets in Villages with population <2000	29903	49761	69623	74855	19862
6	Banking Outlets through Brick & Mortar Branches	33378	34811	37471	37635	2660
7	Banking Outlets through BCs	34174	80802	141136	147167	60334
8	Banking Outlets through Other Modes	142	595	3146	3226	2551
9	Total Banking Outlets	67694	116208	181753	188028	65545
10	Urban Locations covered through BCs	447	3771	5891	6968	2120
11	No Frill A/Cs (No. In million)	73.45	104.76	138.50	147.94	33.74
12	Amount in No Frill A/Cs (Amt In billion)	55.02	76.12	120.41	119.35	44.29
13	No Frill A/Cs with OD (No. in million)	0.18	0.61	2.71	2.97	2.10
14	No Frill A/Cs with OD (Amt In billion)	0.10	0.26	1.08	1.21	0.82
15	KCCs-Total-No. In million	24.31	27.11	30.23	30.76	3.12
16	KCCs-Total-Amt In billion	1240.07	1600.05	2068.39	2094.00	468.34
17	GCC-Total-No. in million	1.39	1.70	2.11	2.29	0.41
18	GCC-Total-Amt In bilion	35.11	35.07	41.84	43.21	6.77
19	ICT Based A/Cs-through BCs (No. in million)	13.26	31.65	57.08	62.77	25.44
20	ICT Based A/Cs-Transactions (No. In million)	26.52	84.16	141.09	45.96	141.09

[11] Scheduled commercial banks (excluding RRBs)

Annex 4: Trends in banking parameters in India

Items	31st March	2007	2008	2009	2010	2011	2012
1. No. of Commercial Banks		**183**	**173**	**170**	**168**	**167**	**173**
(a) Scheduled Commercial Banks		179	169	166	164	163	169
Of which: Regional Rural Banks		96	90	86	83	82	82
(b) Non-Scheduled Commercial Banks		4	4	4	4	4	4
2. Distribution of New Branches (%)	**Total**	100	100	100	100	100	100
	Rural	9	14	18	19	24	33
	Semi-urban	31	31	32	33	41	37
	Urban	35	31	26	27	17	16
	Metro	26	24	24	21	18	14
3. Distribution of Deposits Accounts (%)	**Total**	**100**	**100**	**100**	**100**	**100**	..
	Rural	29	29	30	31	31	..
	Semi-urban	26	26	26	26	26	..
	Urban	22	22	21	21	21	..
	Metro	24	24	23	23	22	..
4. Distribution of Loan Accounts (%)	**Total**	**100**	**100**	**100**	**100**	**100**	..
	Rural	33	31	31	31	32	..
	Semi-urban	23	22	23	23	24	..
	Urban	14	13	13	14	14	..
	Metro	30	33	33	33	30	..
5. Average population per branch (in '000s)	**Total**	**15.7**	**15.1**	**14.5**	**13.8**	**13.3**	**12.6**
6. Number of Banked Centres (Scheduled Commercial Banks)	**Total**	**34399**	**34426**	**34636**	**34801**	**35151**	**36391**

".." : Not available.

Note: All the revenue centres (habitations) are classified in to four groups based on their population based on Census 2001 data. These groups are rural (centres having population < 10,000), semi-urban (10,000 <= population < 1,00,000), urban (1,00,000 <= population < 10,00,000) and metropolitan (population >= 10,00,000).

Source: Reserve Bank of India and Census data.