Key messages of the Sasana Workshop on Financial Inclusion Indicators – *Promoting financial inclusion through better data*[1]

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On 5–6 November 2012, the Central Bank of Malaysia and the Irving Fisher Committee on Central Bank Statistics (IFC) co-sponsored an international meeting at Sasana Kijang, Kuala Lumpur, to discuss measurement and indicators for financial inclusion. Chaired by Deputy Governor Muhammad bin Ibrahim, who was also the Chairman of the IFC, the meeting was attended by 61 participants from 35 central banks, statistical offices, international organisations, NGOs and academic institutions from Africa, Asia, Europe and North America.

The sessions covered the following aspects related to financial inclusion indicators:

- international initiatives to promote the measurement of financial inclusion;
- national practices for collecting data on financial development;
- measuring access to and usage of financial services;
- alternative measures of financial inclusion, including SMEs' access to finance;
- indicators of financial literacy, consumer protection and community development; and
- the development of composite financial inclusion indicators.

The Workshop provided a welcome opportunity to promote national and international best practices to strengthen financial inclusion measurement and data. A key outcome of the meeting was the formal adoption of a *Sasana Statement on Financial Inclusion Indicators*.

As emphasised by the IFC Chairman, this financial inclusion initiative has been strongly supported by the UN Secretary General's Special Advocate for Inclusive Finance for Development, her Royal Highness Princess Maxima of the Netherlands, who had made the following statement:

"*Financial inclusion is essential for employment, equitable economic growth and development, and financial stability. To achieve these goals, policymakers need good national data. Appropriate financial inclusion indicators will be so valuable to produce more and comparable data on which products, delivery models, and policies have the greatest impact on poor people and national priorities.*"

1 This overview benefited from valuable comments by Hock Chai Toh and Zarina Abd Rahman, respectively Director of the Statistical Services Department and Manager at the Development Finance and Enterprise Department at the Central Bank of Malaysia.

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The Workshop highlighted the following main points:

- Financial inclusion is a fundamental issue for governments and policymakers around the world. It is estimated that, at the beginning of the 2000s, half of the world's adult population had no account at a formal financial institution, and three quarters of poor people were unbanked.
- Financial inclusion is a key policy area and the central bank community has a particular interest in it. As emphasised in the IFC Chairman's *Opening Remarks*, greater financial inclusion is essential for sustained economic welfare and for reducing poverty. It also supports economic, monetary and financial stability, by making saving and investment decisions more efficient, enhancing the effectiveness of monetary policy instruments, and facilitating the functioning of the economy. This was echoed by the presentation from the Bank of Mozambique, which emphasised that the scope of the financial sector plays an important role in facilitating private sector growth in developing economies.
- In turn, economic stability helps to develop and strengthen a smoothly functioning financial system that can support financial inclusion. In his keynote address, K C Chakrabarty, Deputy Governor of the Reserve Bank of India, drew on the various initiatives implemented in India in measuring financial inclusion to highlight the "trinity" – financial inclusion, financial literacy and consumer protection – that can make financial stability possible.
- Data on financial inclusion raise important issues. Well founded data frameworks are essential when developing financial services for the poor, in both formal and informal markets. Adequate indicators are a precondition for good financial inclusion policies, as emphasised in the presentation by the Alliance for Financial Inclusion (AFI).[3] They ensure that financial inclusion is properly assessed and that policies aimed at developing it are adequately implemented, monitored, and adjusted as required. Good statistics can also help to strike a fine balance between encouraging innovation and the growth of financial services on the one hand, and ensuring that financial stability is preserved on the other.
- The IFC can be instrumental in facilitating central banks' discussions on data issues related to financial inclusion. Operating under the auspices of the Bank for International Settlements, it is a forum of economists and statisticians from 82 central banks and monetary authorities or agencies from all regions.

This paper presents a summary of the Workshop discussions, organised around five main themes.

- First, it provides a brief overview of existing financial inclusion data collection frameworks.
- Second, it discusses how the collection, compilation, presentation and publication of financial inclusion data could be enhanced.
- Third, it reviews potential ways to fill existing data gaps, including by using surveys, developing methodologies for qualitative indicators and measuring how new technologies are facilitating financial inclusion.

[3] The AFI is a global network of central banks and other financial regulatory institutions from developing and emerging countries working together to increase access to appropriate financial services for the poor (see Box A).

- Fourth, it assesses the merits of developing composite financial inclusion indices to enhance comparability across regions and over time.
- Fifth, it underlines the importance of developing a clear analytical framework for assessing the implementation of financial inclusion policies and standards.

1. Current data collection frameworks

Financial inclusion can be measured along several main dimensions. One dimension refers to accessibility and corresponds to the range of financial services that are available to, or that can be mobilised by, customers. A second dimension measures usage, ie the extent to and ways in which customers actually make use of the services they can access. A third dimension refers to the quality of the services, ie how well they fit with the needs of customers. Yet another, fourth dimension assesses how financial inclusion can actually influence the decisions of economic agents and increase economic well-being.

Whatever the dimension of interest, data on financial inclusion are often classified into supply- and demand-side data. Supply-side indicators serve to gauge the provision of financial services that people can use. These statistics usually follow a "top-down" approach and come from the providers of financial services. For instance, banks will indicate the number of personal accounts opened in one particular area. Demand-side data, on the other hand, tend to be derived from a "bottom-up" approach, aimed at assessing the needs of individuals. These data are mostly collected through surveys and can be instrumental for measuring the qualitative aspects of financial inclusion, such as financial literacy.

A further complication, as highlighted by K C Chakrabarty in his keynote address, is that any financial data framework has both a micro and a macro perspective. The micro perspective arises from the need to take into consideration information that is granular enough (eg by type of transaction, customer or product). The macro perspective reflects, in particular, the fact that financial inclusion has multiple economic and policy implications. All this explains why the definition of the concept of financial inclusion is usually quite broad[4] and requires the measurement of various indicators.

Nevertheless, a lot of data on financial inclusion already exist. The first session of the Workshop presented the various international initiatives in this area. As analysed in the presentations of both the BIS and the Consultative Group to Assist the Poor (CGAP), the centrepiece relates to the work of the Global Partnership for Financial Inclusion (GPFI). This GPFI was set up by the G20 and is supported by the World Bank Group and the AFI. It has developed a number of financial inclusion indicators endorsed by the G20 leaders, regrouped into the "basic" and "secondary" data sets.[5] The basic data set established in 2012 provided limited supply-side information on financial services, in the form of statistics on the number of formally

[4] The definition for India as discussed by K C Chakrabarty is 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 groups in particular, at an affordable cost in a fair and transparent manner by mainstream institutional players*".

[5] See *The G20 Financial Inclusion Indicators*, available on the website of the GPFI (www.gpfi.org).

banked adults and enterprises (ie who have *access* to financial services), of adults and enterprises having credit granted by a regulated institution (ie who *use* financial services), as well as on the points of service (ie number of branches per adult).

Shortly after this Workshop was held, the G20 Leaders endorsed in 2013 the proposal to extend the basic set and develop a more comprehensive and holistic set of financial inclusion indicators. This secondary data set has many additional indicators on access to financial services, their usage, and the quality of service delivery. It covers a much wider range of information, for instance about payments (cashless transactions, use of mobile devices), savings, receiving of remittances, access to insurance, and points of services. Interestingly, more emphasis is being put on the quality-related aspects of financial inclusion, especially in terms of financial literacy and capability, consumer protection, and usage barriers.

The G20 indicators are complemented by a number of other international data sets. Foremost among these is the Global Financial Inclusion (Global Findex) Database, funded by the Bill & Melinda Gates Foundation in partnership with Gallup.[6] It is based on a survey of individuals, covers 148 countries and forms a comprehensive data set, comparable across countries and over time, making it possible to use for tracking the effects of financial inclusion policies globally. The 2011 index includes 41 indicators, disaggregated by gender, age, education level, income, and residence (urban or rural), with an update/extension to be released in 2015. It measures how people save, borrow, make payments and manage risk, covering, for instance, information such as account penetration, accounts and payments, and barriers to using financial services. It also tracks the use of bank accounts to receive payments from various sources, eg the government, employers and family, the frequency and mode of account access, the prevalence of informal saving and borrowing, as well as the use of mobile money.

The IMF presentation also highlighted the usefulness of the IMF Financial Access Survey, a global supply-side data set on financial inclusion that encompasses internationally comparable indicators of financial access and usage by households and non-financial corporations. This relatively low-cost exercise collects from regulators 47 indicators that assess two dimensions of financial inclusion, ie geographic outreach and the use of financial services (covering 189 jurisdictions and a decade of data).[7] Another source of interest is Enterprise Surveys, which provide global and comprehensive data collected by the World Bank on the use of financial services by small, medium and large enterprises in emerging markets and developing economies.[8]

Additional sources of information on financial inclusion include monitoring efforts by international financial institutions, such as the World Bank and the IMF,[9] and to some extent the OECD and the BIS through its Committees, especially on

6 A Demirgüç-Kunt and L Klapper, "Measuring Financial Inclusion: The Global Findex Database", *World Bank Policy Research Working Papers*, no 6025, April 2012.

7 See http://fas.imf.org/misc/FAS_Brochure.pdf.

8 See http://www.enterprisesurveys.org/.

9 For an overview of the data and indicators available, see the *Financial Inclusion and Infrastructure* page on the World Bank website, http://go.worldbank.org/8HMXYGW890.

payments issues. Box A provides a summary overview of such international data collection efforts.

Box A – Summary overview of international initiatives to measure financial inclusion

AFI: the Alliance for Financial Inclusion aims at developing a common framework among its members for measuring financial inclusion. It shares lessons learned on survey methodologies, analysis, target-setting and usage of data to inform policymaking. It also promotes the adoption of the framework in a broader international context.

BIS/Basel Committee on Banking Supervision (BCBS): organisation of regular meetings with standard-setting bodies (SSBs) and stakeholders, in coordination with the UN Secretary General's Special Advocate for Inclusive Finance for Development.

BIS/Committee on Payments and Market Infrastructures (CPMI): financial inclusion is considered in relation to various aspects of payments systems and market infrastructure.

GPFI data group: the Global Partnership for Financial Inclusion (GPFI) is a platform for G20 and other countries and relevant stakeholders, to conduct work on financial inclusion, identify the existing data landscape, assess data gaps and develop key performance indicators.

OECD: the Organisation for Economic Cooperation and Development has a number of networks and projects in the area of financial inclusion, including:

• Financial Literacy Network.

• Financing SMEs and Entrepreneurs.

• Handbook on Constructing Composite Indicators.

• OECD/INFE pilot survey 2010/11 on measuring financial literacy. This was a demand-side survey which identified consumer vulnerabilities and education issues.

• Evidence-based initiatives to enhance financial literacy and promote financial inclusion.

International Association for Research on Income and Wealth: this Association promotes the furthering of research on national and economic and social accounting, and has in particular encouraged related work on financial inclusion issues.

Microfinance Information Exchange (MIX): a Washington-based non-profit international organisation that collects, validates, and analyses microfinance data. It has various private sector partner organisations.

Finmark/Finscope

• FinMark Trust is an independent trust set up in 2002 with initial funding from the UK Department for International Development.

• Finscope surveys are demand- and supply-side surveys conducted on consumers and small businesses.

Center for Financial Inclusion: a New York-based group of key industry participants.

Various regional initiatives: such as FinScope studies in the Southern African Development Community (SADC) region.

Various donor organisations: eg the Gates Foundation.

A large number of countries also conduct national surveys that can serve as a gauge for measuring financial inclusion. In Session 2 of the Workshop, several countries presented their national experiences with surveys aimed at monitoring credit to households, SMEs and agriculture. In particular, the experience of the Bank of Portugal was that the compilation of micro-databases can be instrumental for monitoring the financing needs of the economy at a sufficiently granular level, and thereby for assessing financial inclusion effectively. The presentation of the AFI's financial inclusion data group reported on how the Mexican National Banking and Securities Commission secured the cooperation of the various financial authorities to ensure the design of an effective financial inclusion measurement framework. The experience of the People's Bank of China was that the monitoring of credit to the agriculture sector and to SMEs can be very effective in ensuring that the provision of financial services can support sustainable long-term growth. Lastly, the presentation by the Central Bank of Brazil underlined the importance of setting up the monitoring of several indicators to support the development of financial inclusion.

Box B provides a selected overview of national data collection efforts in the area of financial inclusion, including those which were not specifically presented at the Workshop.

Box B – Selected country practices related to the measurement of financial inclusion

Argentina: national survey on access to financial services.

Belgium: studies on income and wealth by the central bank.

Brazil: Inclusão Financeira (yearly forum meeting); measures to monitor the development of the network of correspondent banks.

France: national database on household credit repayment incidents.

India: research topic of the Reserve Bank of India's Centre for Advanced Financial Research and Learning (CAFRAL).

Italy: studies on income and wealth by the central bank.

Kenya: M-PESA mobile payment system.

Portugal: measuring the evolution of financial services, including through data from payment systems, central credit registers and the central bank balance sheet data office.

South Africa: academic research, including by the Centre for Inclusive Banking in Africa.

US: Federal Reserve involvement in Community Development Finance.

United Kingdom:

•HM Treasury initiative: Financial Inclusion Taskforce.

•Private sector: Transact – the National Forum for Financial Inclusion.

•Non-for-profit think tank: the Financial Inclusion Centre.

2. Enhancing data collection frameworks

The Workshop reviewed a number of methodological challenges with respect to the collection of data in the area of financial inclusion. As regards supply-side data, their compilation is not a trivial challenge for three reasons. To begin with, supply-side data may be susceptible to double-counting, notably because providers of financial services tend to identify accounts rather than individuals, and because there is a lack of financial identity in many developing countries. Furthermore, it is difficult to segment these data to establish which parts of the population are well served (or under-served), because they provide information on the demand for financial services that is actually observed and not on the potential demand that could be fulfilled. Lastly, financial suppliers and the financial products and services they offer are diverse: that makes it difficult to aggregate the data to form a comprehensive view on financial inclusion at a country or even at a regional level.

Turning to demand-side surveys on financial inclusion, there are also significant challenges. This was illustrated by the presentations made during Sessions 3 and 4, in particular by the Reserve Bank of India on measuring financial inclusion on the demand side, and by the Bank of Italy on its research on income and wealth. First, the sampling frame must be appropriate and, for instance, consistent with the structure of the population census. The nature of the sample has to be sufficiently granular to allow for the compilation of different levels of aggregation that is key to a meaningful understanding, analysis and regulation of financial inclusion at a country level. The survey sample should ideally focus on both households (or even individual household members) and small businesses. Respondents must be appropriately selected to ensure that the panel surveyed is adequately representative of the population. And the frequency of the survey should be relatively high (at least once every 10 years).

Regardless of the type of data, an important methodological issue pertains to cross-country comparisons. In his opening remarks, the IFC Chairman underlined the fact that financial inclusion data collected over the world rely on heterogeneous concepts (eg how is an under-banked individual defined?), variables (eg access to a bank account versus its effective use), collection practices (eg bottom-up versus top-down approaches), methodologies (eg use of composite indicators), degree of accuracy, and time frames (eg survey frequency).

But national data cannot be easily harmonised because financial inclusion issues are often country-specific. Indeed, too much harmonisation of methods can make financial inclusion data less relevant for national policymaking. To this effect, in its presentation the AFI advocated three key steps for any financial inclusion data strategy: (i) setting up adequate technical capacity at the country level; (ii) testing indicators in practice at the country level; and (iii) choosing indicators that best inform each country's policymaking, while keeping consistency across countries. The recommendation is, therefore, to resist the setting of global data standards ex ante, and instead to try to achieve international consistency of those indicators that are first deemed relevant at the country level.

From this perspective, it is worth noting that a few months after the Workshop, the members of AFI decided to address this issue explicitly. On the occasion of the AFI Global Policy Forum held in Kuala Lumpur in September 2013, they endorsed the Sasana Accord[10] by which they decided to ensure, among other things, that financial inclusion policy making and strategies can be assessed using data-based analysis. To this end, the members agreed to set national targets on financial

[10] See The Sasana Accord, http://www.bnm.gov.my/documents/2013/Sasana_Accord_AFI2013.pdf.

inclusion as well as measure progress based on common indicators (by reporting at least the Core Set AFI Indicators, updated regularly).

3. Closing data gaps

The Workshop showed that there has been significant progress in recent years in developing data on financial inclusion in various countries. However, much work remains to be done to enhance the coverage of the population and also the quality of the data collected. In addition, two important data gaps exist and would need to be addressed as a matter of priority: the situation of small and medium-sized enterprises (SMEs); and the quality of use of the financial services that can be supplied to the poor.

As regards SMEs' access to financing, there is a need for more information because SMEs can make a decisive contribution towards reducing unemployment and poverty – in both developing countries where financial exclusion is high on the policy agenda, and also in advanced economies. The various presentations by China, Portugal and the ECB showed several interesting ways of assessing through formal surveys on the funding needs of SMEs, as well as the availability and terms of financing that is offered to them. But a significant challenge is the lack of clear separation between firms and households, especially in the area of microfinance. The reason is that households can engage in production, often on a relatively small scale and for informal and subsistence activities. In the poorest countries in particular, those households' production units are not legal entities and are treated as unincorporated enterprises in the statistical system. It is, therefore, difficult for analytical purposes to differentiate between households' role as consumers and their role as producers of goods and services. One key step towards addressing this challenge, which was emphasised in particular in the presentations of the Bank of France and the Board of Governors of the Federal Reserve System, is to have sufficiently granular data at hand to allow for a precise identification of households' activities and their need for financial services. Another important initiative presented by MIX, the Microfinance Information Exchange, is the collection and publication of data encompassing all the various institutions involved in microfinance. That helps to enhance transparency on the services that are available (in particular, by using geospatial analysis techniques).

The second main area where data are incomplete is the usage of financial services, especially from a qualitative point of view. The experience of Columbia presented by the AFI regarding the collection of supply-side information underscored that this usage issue is crucial, if one is to correctly design financial products and enhance financial literacy and consumer protection. On the demand side, the presentation by the Central Bank of Malaysia on measuring financial literacy showed how surveys can be effective in measuring consumer vulnerabilities and in supporting the development of effective programmes to enhance financial literacy. Moreover, the experience of India shows that data on access usually emphasise convenience and flexibility, such as the number of bank branches or automated teller machines (ATMs) that can be accessed by households in their proximity. But, often, these data do not encompass quality issues, such as the suitability of the services supplied compared to users' actual needs, and the way these services will potentially be used.

There are, in fact, several reasons why available financial services may not be used and/or may be used without translating into good outcomes. On the demand side, such reasons can include distance, awareness, affordability and cost, trust, lack of documentation, religious or cultural barriers, consumer experiences, financial illiteracy, and lack of customised products. All these factors can prevent an individual from using a financial service that is theoretically available.

On the supply side, providers may be unable or unwilling to actually provide to specific areas or groups the services that are part of their general offering. For instance, banks are often unwilling to lend to poor households because of their low income, the nature and scale of the business conducted with them, and a perception that they are highly risky and not profitable. These factors have indeed led to the development of microfinance as an alternative source of financial services for entrepreneurs and small businesses, with the aim of mitigating those supply restrictions by relying more on relationship-based services and/or the pooling of the demand for financial services across selected groups of entrepreneurs or households.

In turn, these demand- and supply-side dimensions interact in a way that is difficult to measure with simple data. For instance, the mis-selling of products, and high commissions charged by suppliers may in turn make poor households unwilling to demand banking services. The solution for these difficulties is to survey individual consumers and providers of financial services so as to try to capture these qualitative aspects.

4. Developing indices of financial inclusion

Session 6 of the Workshop was devoted to developing financial inclusion indices (FIIs). In its presentation, Mexico emphasised the usefulness of a composite financial inclusion index, as it allows the multiple dimensions of financial inclusion to be reduced to a single one, making it simpler for analysts and policymakers alike. In general, such indices have no units and are constructed by making all the measured dimensions comparable. The Malaysian presentation on developing an FII showed that such an index can be a valuable instrument when seeking to diagnose the financial inclusion situation for a specific geographic location, as well as to facilitate comparisons across regions and countries. In turn, the indexes based on a set of identified key performance indicators can be established as benchmarks and used to identify best practices. The Indian presentation suggested that composite indices may be easier for policymakers to target than a multitude of indicators. For instance, measures similar to the Global Findex presented by the World Bank at the Workshop can significantly facilitate international benchmarking exercises.

Nevertheless, FIIs cannot be considered as a universal or exclusive policy tool. In fact, developing composite indices is not a goal in itself, and the quality of underlying data is essential. Moreover, a less simplistic dashboard of meaningful ratios can provide more insights on financial inclusion, since this issue is so multidimensional. While a key criterion for computing FIIs is simplicity, financial inclusion has different aspects specific to each country: hence it is far from straightforward to build FIIs that are comparable internationally – or even across the regions of a single country such as India, as pointed out by K C Chakrabarty in his keynote address. Therefore, FIIs can be very sensitive to geographical sampling, the number of dimensions included, and – when measures are taken with reference to a benchmark – to the variance of the underlying indicators (eg minimum and maximum values). Comparisons over time can be tricky too, not least when the composition of the index has been adjusted without backdating. Experience suggests that such issues can be mitigated (i) if the number of dimensions included in the FII is kept relatively limited and stable; (ii) if the index is computed for a sample of countries that is sufficiently representative; and (iii) if it is based on a relatively similar set of indicators, which could be easier to harmonise across countries.

The presentation by the Bank of Italy summarised at a theoretical level the various steps that should be followed in constructing a composite index in general, and for FIIs in particular. To begin with, a clear theoretical framework must be developed, so as to have a sound basis for selecting the individual indicators of interest. As a second step, the data content, analysis, weighting and aggregation scheme for the retained indicators must be precisely defined. Once the FII has been constructed, sensitivity and robustness analysis are required to ensure its quality is sufficient – for instance, the indicator should not change dramatically if one of the individual components is excluded, or if a different weighting scheme is used. An additional criterion is the possibility of "reverse engineering" the information provided by the FII, ie to clearly decompose its value into the contributions of the various underlying indicators. Lastly, a framework must be created for representing and communicating information provided by an FII, especially when making cross-country comparisons on the overall performance of the index, the contribution of the various indicators to it, and so on.

At a practical level, various countries shared their experience of FII construction during the Workshop. The Central Bank of Malaysia's index is based on several indicators that can be grouped into four main dimensions of financial inclusion: convenience of the access to financial services, take-up rates (ie measuring the size of the banked population), responsible usage (measuring the banked and underbanked population that make very little use of the financial services they can access), and satisfaction level (ie measuring the perceived quality of the financial services used). To compute the index, the "distance from frontier approach" (based on Sarma and Pais (2011)[11]) is used: first, a sub-index is calculated for each indicator, normalised to be between 0 and 1 so as to take into consideration the variation of the indicator between its minimum and maximum. The sub-indices are subsequently weighted according to importance, and the FII is calculated as the simple weighted average. If there is no good reason for thinking that one dimension is more important than another, then the sub-indices can be weighted equally for aggregation. The distance to the frontier is the gap between the value of the indicator and the maximum that can be obtained across all dimensions. Another interesting point is that the FII is computed by the Bank for different income groups (general population, low income group etc). Obviously, such a computation is only possible if the data compiled are granular enough.

Along similar lines, Brazil has also developed an FII based on 18 indicators that are aggregated along three main dimensions of financial inclusion: bank

[11] M Sarma and J Pais, "Financial inclusion and development", *Journal of International Development*, no 23, 2011, pp 613–28.

penetration, availability of financial services, and use of financial services. The FIIs are calculated for all states in Brazil and aggregated for major geographic regions. A last example, as mentioned in the Bank of Mozambique's presentation, is the research tool developed by a non-profit organisation that allows for the comparison of financial inclusion across African countries.

5. The need for a clear analytical framework to assess financial inclusion

Dealing with financial inclusion requires adequate data. This is obvious for financial service providers: they can modify their offering of financial services and products only if they have a good picture of where the potential customers are and what they need. This is a key condition for ensuring that customised financial products can be designed for specific regions and categories of consumers.

Similarly, authorities seeking to reduce financial exclusion have to rely on good data, not only to calibrate their various policy initiatives ex ante, but also to ensure that their outcomes can be assessed ex post, and the policy modified accordingly. Indeed, the AFI presentation underlined the importance of ensuring that policymaking in the area of financial inclusion is evidence-based. To this end, the following steps should be followed: (i) diagnose the situation in terms of financial inclusion, based on objective data; (ii) design appropriate policies; (iii) monitor changes over time; (iv) evaluate policy impact; and (v) review and eventually refine existing policies.

The Workshop highlighted the need to focus on the last step, ie policy assessment. For instance, the Bank of Mozambique has instituted a regime on minimum fees charged by commercial banks, and it is important to check whether this has been effective in ensuring affordable and fair access to financial services by rural poor as intended. The experience presented by India is that combining financial inclusion data with socio-economic and demographic characteristics can yield a number of useful insights. Both the assessment of financial inclusion and the ensuing policy response will vary depending on the location, age, income, education and occupation of each population segment. For instance, the way to address financial exclusion can differ between the less populated rural zones and crowded cities. In addition, the impact of financial exclusion on the poor, and the need for a policy response, may vary depending on the socioeconomic characteristics of the population. This means that the monitoring of financial inclusion policies should be conducted at a sufficiently micro level – ie at the level of individual customers or even of specific financial transactions and/or products – even if this information has to be properly aggregated to offer a "macro" perspective to national policymakers.

In summary, having a clear analytical framework is a key element for ensuring the success of financial inclusion policies. This framework can help identify specific situations of financial exclusion, analyse the role played by various providers of financial services, and design and assess the policy responses. The framework should allow for the correct capturing of two key dimensions, one cross-sectional (ie at a given point in time but across the population) and one over time.

6. Conclusion: a roadmap for enhancing financial inclusion indicators

The Workshop showed that a significant amount of data are already available to measure financial inclusion. The G20 basic and secondary data sets, developed by the GPFI, form the centrepiece and they can be usefully complemented by the Global Findex, various other indicators developed by the World Bank, the IMF and NGOs, and national surveys.

However, data gaps still exist which limit a full assessment of financial inclusion issues and the design of adequate policies. Gauging the availability of credit to SMEs is, for instance, still difficult and this is of particular importance in developing countries where there is traditionally less of a clear boundary between the household and the SME sectors. Evaluating the quality of use and appropriateness of financial services, looking beyond data on quantities, is also a challenge.

There is also scope for enhancing data collection methodologies. In particular, supply- and demand-side surveys present conceptual issues which can be better addressed, particularly by sharing more experience across countries. Besides, technologies constantly keep changing and new ones appear (eg mobile phones) that can alleviate financial exclusion in hitherto unforeseen ways, making previous statistical data collection exercises obsolete. Data collection systems ought therefore to be flexible and adjustable to allow for new set of indicators to be included and additional data to be compiled, depending on the advancement of technologies. As regards the harmonisation of cross-country data in the area of financial inclusion, a right balance needs to be struck between comparability and the need to adequately reflect country specificities – bearing in mind that characteristics of financial inclusion may vary across countries, for instance depending on geography, state of development and culture.

Analytical frameworks have been developed to help policymakers and other stakeholders in their assessment of financial inclusion. Even so, further progress can also be made in this area too. Composite indices of financial inclusion can be a useful, albeit not universal, tool to this end. Here also there is a merit in sharing experience to ensure that these indicators have sufficiently adequate statistical properties. The Workshop also highlighted the usefulness to policymakers in relying on a systematic analytical framework when diagnosing financial exclusion in their respective countries, designing appropriate initiatives to address it, monitoring changes over time, assessing the impact of their actions, and refining their policies. A key consideration is to analyse financial inclusion with the right amount of (geographical and social) granularity, both across the population and over time.

Last, a number of important national and international initiatives are under way to improve the measurement of financial inclusion. In pursuing these endeavours further, it is essential not to duplicate existing data collection and policy efforts,[12] but, instead, to leverage on them. Moreover, as stressed during the panel session

[12] For instance, and as regards the financial regulation sphere, the data collection exercises conducted by the IMF and the World Bank, or the application of the Basel Core Principles to the regulation and supervision of the banks and other deposit-taking institutions engaged in activities relevant to financial inclusion.

concluding the Workshop, it is essential to promote the stocktaking of various "best practices", both across countries and at the international level, to enhance financial inclusion measurement and data. From this perspective, and as emphasised in the *Sasana Statement* published at the end of the Workshop, authorities can usefully rely on the IFC as a platform for mobilising the central banks' network and for sharing experience so as to address the challenges related to the measurement of financial inclusion.