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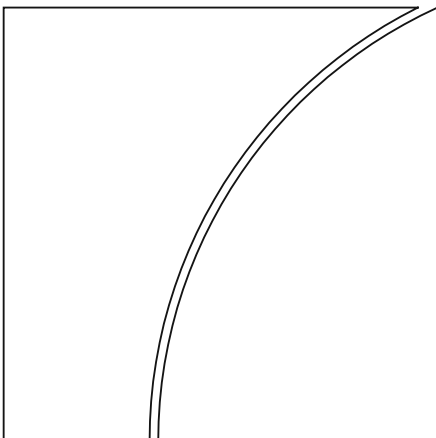
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Sasana statement on financial inclusion indicators

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

Blaise Gadanez and Bruno Tissot²

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.

² Respectively Economist and Head of Statistics and Research Support, BIS.

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 broad⁴ 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 (GPII). This GPII 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 GPII (www.gpii.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 Accord¹⁰ 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 GPMI, 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.

Workshop on Financial Inclusion Indicators

9 am, Monday, 5–6 November 2012

Forum, Sasana Kijang, Kuala Lumpur

Opening remarks by Dato' Muhammad bin Ibrahim, Deputy Governor of the Central Bank of Malaysia and IFC Chairman

Good morning ladies and gentlemen,

It is my great pleasure to welcome you to the Workshop on Financial Inclusion Indicators here at Sasana Kijang, Kuala Lumpur. The Central Bank of Malaysia is honoured to co-host this event with the Irving Fisher Committee on Central Bank Statistics (IFC).

Following the recent global financial crisis, financial inclusion has emerged as an important element of the global policy agenda. Greater financial inclusion, if properly designed, can contribute decisively towards sustainable long-term economic growth. Many countries look at financial inclusion as a means of achieving inclusive growth, by giving all segments of society access to financial services. Financial inclusion can also help to reduce poverty, by providing the poor with ways to grow and protect their incomes, smooth their consumption/investment patterns and enhance their saving capacity through the provision of adequate financial products. This increases the economy's resilience in the face of economic shocks, promotes financial stability, fosters the financial sector, and spurs economic growth by mobilising savings and supporting investment.

According to the World Bank Global Findex Database, released in April 2012, about half of the world's adult population have an account with a formal financial institution. But there is a large disparity between advanced and developing economies. In high-income economies, 89% of the adult population have some access to the financial system; this is more than twice the ratio seen in the developing economies (41%). Among the 2.7 billion or so adults in the world who have no formal account, most are in the developing economies and in the poorest segments of society: the highest income quintile is more than twice as likely to have a formal financial account, compared with those in the lowest quintile.

Now widely discussed, financial inclusion issues have attracted increasing interest from central banks worldwide. In addition, the major multilateral agencies involved in development issues have become very active in this area: for instance, the International Monetary Fund (IMF) and the World Bank have sought to identify key indicators of financial inclusion, and they have published their first set of financial inclusion statistics in the form of the Financial Access Survey and the Global Findex Database, respectively in 2010 and 2012.

There are also other institutions that play an active role at the international level in developing new research, setting standards and providing a platform for policymakers to share experiences. Among the most significant are the Global Partnership for Financial Inclusion (GPII), the Consultative Group to Assist the Poor (CGAP), the Alliance for Financial Inclusion (AFI) and the International Finance Corporation (IFC).

Recognising the significant benefit of financial inclusion, Malaysia, and in particular the Central Bank of Malaysia, has actively supported this policy agenda at both the domestic and international levels. Domestically, the Bank is currently implementing the 10 high-priority financial inclusion measures outlined in the Financial Sector Blueprint 2011–2020 released in December 2011. Five of them have already been implemented, namely, agent and mobile banking, a financial literacy outreach programme to under-served locations, training for microfinance practitioners and financial inclusion Key Performance Indicators (KPIs). And they are delivering real benefits to underserved communities. Capacity building is another area where we have allocated resources. For 2012, the Bank has organised three financial inclusion training programmes for policymakers, covering the topics “Regulation and supervision of deposit-taking microfinance institutions”, “Business conduct and consumer protection” and “Islamic microfinance”.

To reflect our continuous commitment to the global financial inclusion agenda, the Bank will be hosting the 2013 AFI Global Policy Forum in Kuala Lumpur. This is an important international financial inclusion forum for policymakers around the globe. We expect to receive more than 300 participants from over 80 countries. We wish to invite all of you here today to participate in this forum in September next year.

Yet, promoting financial inclusion remains a significant challenge. One frequently mentioned impediment is the lack of reliable figures to support more effective and informed policy formulation and implementation. Reliable, accurate, comprehensive and timely data are absolutely essential, as they help policymakers formulate policies that address the real needs of the under-served community and to measure their real impact.

Measuring financial inclusion is also challenging because the concept is so variously defined. This can hinder meaningful analysis and policy discussion. For example, some institutions cleave to a narrow and specific definition of the underbanked population, while others include financial services for the poor and for small enterprises.

In addition, the type of variables used to assess financial inclusion may also differ across countries and organisations. Usually, these variables include:

- access to bank accounts;
- access to credit;
- payment facilities;
- usage and quality of financial products and services, which encompasses consumer protection and financial literacy; and
- consumer satisfaction.

But even if the variables look similar, definitions and practices vary, making comparability difficult.

Apart from the need to develop methodologies for defining financial inclusion and for drawing up indicators that relevantly encompass all its dimensions, one issue for policymakers is the lack of a composite measure for financial inclusion. Such an index, once established, would be a useful way of making comparisons across time and geography. It would also help decision-makers to gauge the effectiveness of their policies over a period of time.

Taking into consideration the global need to address these challenges, and in line with the IFC's desire to promote the exchange of views among central bank economists, statisticians and policymakers, the IFC is proud to organise this workshop jointly with the Central Bank of Malaysia. We hope it will be a useful platform for the community of compilers, users and analysts of statistical information in their efforts to:

- share experience on the compiling of data on financial inclusion and how these can shed light on key aspects of interest to analysts and policymakers;
- review and discuss key indicators that help to define and measure financial inclusion along with its impact; and
- discuss the development of composite indicators for financial inclusion.

As regards the measurement of financial inclusion, the workshop will provide a useful opportunity for discussion of financial inclusion measures, the new challenges faced by policymakers, and the impact of financial inclusion initiatives on the overall economy, particularly in terms of financial stability.

We will conclude our workshop on the second day with the issuance of the Sasana Statement on Financial Inclusion Indicators, which will incorporate and summarise our discussions and reflect our continuous and unwavering commitment to supporting the global financial inclusion agenda.

On behalf of the IFC and the Bank, I would also like to take this opportunity to put on record our heartfelt thanks to Her Royal Highness Princess Maxima of the Netherlands, the UN Secretary General's Special Advocate for Inclusive Finance for Development, for her strong support of our initiative. And on this topic, I would like to quote her words, as follows:

"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."

Aside from the workshop, I hope you will take the opportunity to tour this magnificent building, the Sasana Kijang, as well as the beautiful green city of Kuala Lumpur during your time here. Sasana Kijang exemplifies the Bank's vision of creating a centre for the development of thought leadership and for the promotion of greater regional and international collaboration in central banking and finance.

On this note, I wish you a fruitful discussion and an enjoyable as well as productive workshop.

Thank you and Terima Kasih!



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 & analysis¹**

Kamalesh Shailesh C Chakrabarty,
Deputy Governor, Reserve Bank of India

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 Analysis¹

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 constituency².

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 initiatives⁴, 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 Inclusion⁶, 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 indicators. 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 economies⁷. 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 cent⁸ (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 2012⁹. 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 system¹⁰.

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 banks¹¹ 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 billion	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
<i>Of which:</i> 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.



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 & analysis¹

Kamalesh Shailesh C Chakrabarty,
Deputy Governor, Reserve Bank of India

¹ This presentation 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 & Analysis

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DEPUTY GOVERNOR
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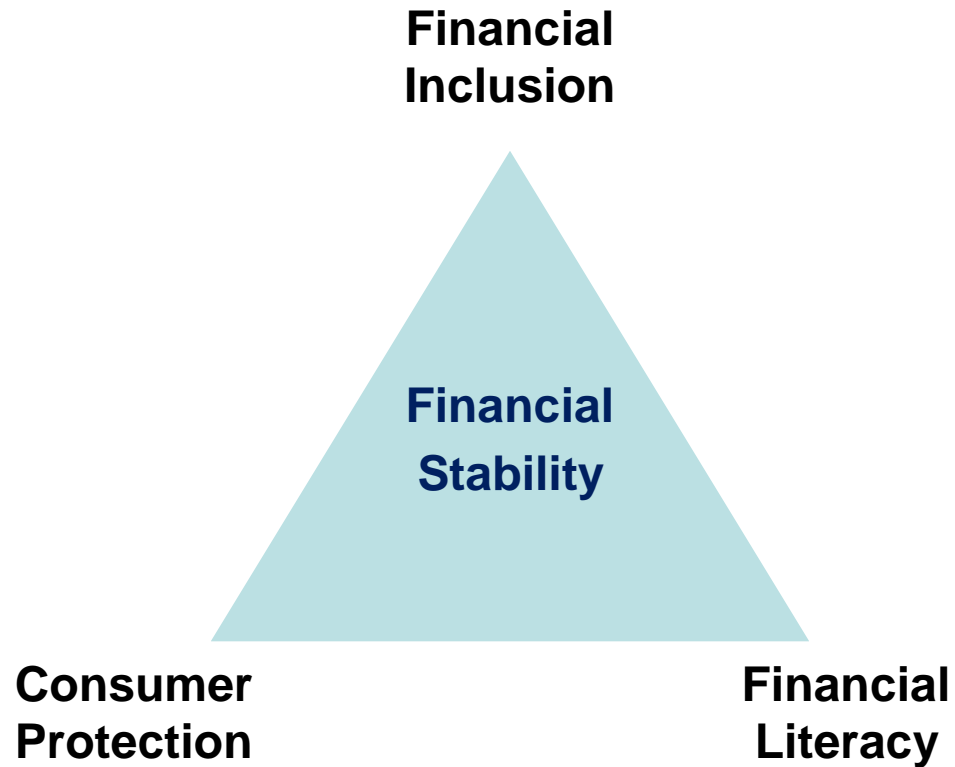


Financial Inclusion

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.



Trinity to make Financial Stability Possible





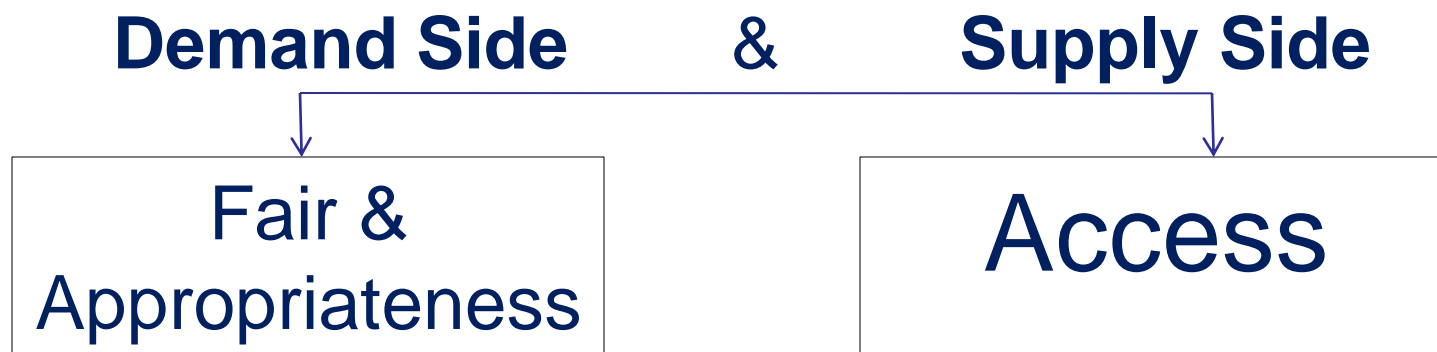
Financial Inclusion- Definition

“Financial inclusion is the process of ensuring access to appropriate financial products and services needed by all the 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”



Twin Aspects of Financial Inclusion

- Financial Inclusion and Financial Literacy are twin pillars. While Financial Inclusion acts from supply side providing the financial market/services what people demand, Financial Literacy stimulates the demand side – making people aware of what they can demand.



- Developing Economies face the problem of low level of literacy, poor accessibility and low demand. Therefore it is necessary for developing an Index for measuring both Access as well as the level of Literacy.



Framework of Financial Inclusion-I

- **Assessment of enabling environment**
- **Penetration Issues**
- **Barriers to Financial Inclusion**
- **Demand for financial services**
 - **Access Issues – Availability of Banking facilities**
 - **Financial Education & Literacy**
 - Awareness of financial products and services
 - **Availability of appropriate products**
 - **Savings Products**
 - **Emergency Credit (Overdrafts)**
 - **Remittance Products**
 - **Entrepreneurial Credit (KCC/GCC)**



Framework of Financial Inclusion - II

- **Supply of financial services**
 - **Ease of Access**
 - Time Dimension
 - Distance Dimension
 - Pricing Dimension
 - Terms & Conditions
 - **Fairness & Appropriateness of Products**
 - Education
 - Consumer Protection



Framework of Financial Inclusion-III

- Monitoring of Products
 - Micro Level Monitoring
 - Transaction level monitoring
 - Customer Level Monitoring
 - Product Level Monitoring
 - Macro Level Monitoring
- Assessment & Outcome of Policy
 - Assess whether the FI model is viable
 - Conduct an Impact Analysis
 - Penetration study



Information Needs – Stages

- Proposal/Definition Stage
- Environmental Stage
- Implementation Stage
- Monitoring Stage
- Overall Assessment Stage



Information Needs – I

- Basic Indicators to Measure Access
 - Brick & Mortar Structures
 - Number of branches per 1000 population
 - No. of ATMs per 1000 sq.km.
 - Alternate banking outlets – ICT based BC Model
- Product stage -
 - Number of Products
 - Types of products



Information Needs – II

- Implementation & Assessment Stage
 - Progress of Initiatives and Impact Analysis
 - Penetration of FI – Growth / Changing pattern of
 - No. of customers
 - No. of products
 - Volume of transactions
 - Returns on the products
 - Macro and micro level impact
 - Use of surveys
 - Viability of delivery models and Sustenance of Initiatives
 - Spread of Financial literacy
 - Measuring constraints in FI



International Measurement Initiatives

- World Bank's Financial Inclusion Database April 2012 (FINDEX)
 - Survey based data on 148 countries (2011) on a set of indicators that measure, how adults save, borrow, make payments, and manage risk.
 - Reported in terms of the proportion of people (of age 15+)
- IMF's Financial Access Survey July 2012 (FAS)
 - Supply-side annual data for 187 jurisdictions, including all G20 economies for the period 2004-2011
 - Data on basic indicators of financial access and usage such as spread of bank network, ATMs, Number of deposit and loan a/cs, Deposit-GDP and Credit-GDP ratios.



Financial inclusion – The Indian model

Policy Developments

- Inclusive Growth – National Objective
- RBI Initiatives since 2005
- Three year Financial Inclusion Plan (2010-13) – A Structured, Planned & Integrated Effort
- Rangarajan Committee on Financial Inclusion (2006-08)
- Financial Stability and Development Council (2010)
- RBI Advisory Committee on Financial Inclusion (2012)



Financial inclusion – The Indian model

- Adopted a Bank led model - To introduce a bouquet of products related to Savings, Payments & Credit together
- Mainstream banking institutions only 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



Financial Inclusion - Strategy

- RBI encouraged the ICT model which would enable banks to circumvent the barriers of geography and ensure efficient FI.
- ICT based delivery model – Technology-neutral to facilitate easy up-scaling and customization, as per individual requirements.
- Strategy to create an eco-system comprising of a combination of Branch and ICT based BC outlets for evolving an effective Financial Inclusion Delivery Model.



Financial Inclusion Initiatives- I

- Encouraged the SHG Bank Linkage Programme – 4.79 million SHGs covering 97 million poor households were credit linked till last year under the programme
- Mandated Commercial Banks including Regional Rural Banks to migrate to the Core Banking Platform
- Substantial liberalisation of the BC based service delivery model in phases
- Domestic Scheduled commercial banks permitted to freely open branches in Tier 2 to Tier 6 centres
- Banks mandated to open at least 25% of all



Financial Inclusion Initiatives - II

- **Know Your Customer (KYC) documentation requirements for opening bank accounts relaxed for small accounts substantially**
- **Encouraged Electronic Benefit Transfer for routing social security payments through the banking channel.**
- **Pricing for banks totally freed. Interest rates on advances totally deregulated**
- **Separate programme for Urban Financial Inclusion initiated**



Financial Inclusion Initiatives- III

- **Roadmap for providing banking services** – A structured way of covering villages. In the first phase villages with population above 2000 was targeted. The focus has now shifted to villages with population less than 2000. [BC Model - Chart](#)
- **Introduction of New Products** – Making available a minimum of four banking products through the ICT based BC model.
- **Financial Inclusion Plan for Banks** - All domestic commercial banks - public and private sector have drawn a Board approved 3 year Financial Inclusion Plan (FIP) starting April 2010.



Financial Inclusion PLAN - Monitoring

- **Banks' 3 Year FIPs include :**
 - **No. of branches opened, of which the no. opened in unbanked villages and in villages with population > than and < 2000**
 - **No. of BC outlets opened**
 - **No. of Basic Savings Bank Deposit Accounts opened**
 - **No. of emergency credit (OD) provided**
 - **No. of Entrepreneurial credit (KCC/GCC) provided**
 - **Transactions done in the above accounts through Brick & Mortar branches as well as through BCs**
- **Close Monitoring by Reserve Bank of India - Monthly Reporting - Annual Comprehensive**



FIP – Monitoring Format

SR	Particulars	
1	Total No. of Branches	
2	, No. of Rural Branches	
3	No. of branches in unbanked villages	
4	Total No. of CSPs Deployed	
5	No. of banking outlets Out of 1 above in villages with population > 2000	Through Branches
6		Through BCs
7		Through Other Modes
8		Sub Total : > 2000
9	No. of banking outlets in villages with population < 2000	Through Branches
10		Through BCs
11		Through Other Modes
12		Sub Total : < 2000
13	Total Banking Outlets in all villages	
14	No. of BC outlets in Urban Locations	
15	Basic Savings Bank Deposit Accounts (BSBDAs) through branches	No. in million
16		Amt. Rs. In billion
17	Basic Savings Bank Deposit Accounts (BSBDAs) outstanding through BCs	No. in million
18		Amt. Rs. in billion
19	Basic Savings Bank Deposit Accounts (BSBDAs) (Bank as a whole)	No. in million
20		Amt. Rs. In billion
21	OD facility availed in BSBDAs	No. in million
22		Amt. Rs. In billion



FIP – Monitoring Format...

23	KCCs outstanding - through Branches	No. in million
24		Amt. Rs. In billion
25	KCCs outstanding - through BCs	No. in million
26		Amt. Rs. In billion
27	KCCs-Total (Bank as a whole)	No. in million
28		Amt. Rs. In billion
29	GCCs outstanding through Branches	No. in million
30		Amt. Rs. In billion
31	GCCs outstanding through BCs	No. in million
32		Amt. Rs. In billion
33	GCC-Total (Bank as a whole)	No. in million
34		Amt. Rs. In billion
35	Transactions in BC-ICT Accounts (during the quarter) *	Savings Deposit (No. in million)
36		Savings Deposit (Amt. Rs. In billion)
37		Credit/OD (No. in million)
38		Credit/OD (Amt. Rs. In billion)
39		Term Dep./RD (No. in million)
40		Term Dep./RD (Amt. Rs. In billion)
41		EBT/Remittance (No. in million)
42		EBT/Remittance (Amt. Rs. In billion)
43		Others (No. in million)
44		Others (Amt. Rs. In billion)
45	Total of Transactions in BC-ICT Accounts	No. in million
46		Amt. Rs. In billion



FIP – PROGRESS UPTO JUNE 2012

SR	Particulars	Year ended Mar 10	Year ended Mar 11	Year ended Mar 12	Quarter ended June 12	Progress April-June 12
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9	Total Banking Outlets	67694	116208	181753	188028	65545
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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



How Index can help measure penetration over and above capturing access

Total No. of Branches	99771
No. of Rural Branches	37635
No. of villages covered	188028
No. of Business Correspondents	120098
No of people provided with Basic Savings Bank Accounts (No. In million)	147.94
Average balance in these accounts (in Rs.)	800
No. of people credit linked (No. in million)	36.02
Average balance outstanding in these credit linked accounts (in Rs.)	60000
No. of Accounts opened by BCs (No. in million)	62.77
No. of transactions in ICT Based A/Cs opened by BCs (No. In million)	45.96
No. of transactions per BC per day	4
No. of transactions per ICT account per day	.01



ISSUES

- Demographic Spread – How to provide banking services to villages with low population – Viability?
- Evolving of an Appropriate Business Model & an Efficient Delivery Mechanism
- Financial Literacy – Status of awareness
- National Level Coordination of all the stakeholders like Banks, Governments, Civil Societies, NGOs etc. required to achieve the objective of financial inclusion.



Measurement Challenges – CONCLUSION

- Financial inclusion concepts, policies, delivery models and implementation processes are evolving and as such depends on the environment. It is therefore essential that the policy for achieving total financial inclusion has to change to adapt to the needs of the environment.
- Existing initiatives in measuring financial inclusion are commendable, yet there is a need for greater focus on the micro and distributional dimensions
- Finally the focus of Financial Inclusion should be more on the people aspect involved rather than the accounting aspect.
- The focus of information systems in banking business have to change from traditional accounting model to customer centric business model. This would call for expanding the scope of presently adopted measures of financial inclusion.



Thank you

kcchakrabarty@rbi.org.in



IFC Workshop on Financial Inclusion Indicators
Co-hosted by Bank Negara Malaysia
5 – 6 Nov 2012, Sasana Kijang, Kuala Lumpur

**Overview of international and national initiatives
to promote financial inclusion and its measurement¹**

Paul Van den Bergh, BIS

¹ This presentation 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.



Overview of international and national initiatives to promote financial inclusion and its measurement

Paul Van den Bergh

Head of Statistics and Research Support

**Bank Negara Malaysia – IFC workshop on Financial Inclusion Indicators,
Kuala Lumpur, 5-6 November 2012**



United Nations

- In September 2009 appointed Secretary General Special Advocate (UNSGSA) for Inclusive Finance for Development : H.R.H. Princess Maxima of the Netherlands
- Presents Annual Report
- Five priority themes
 - diversity of financial services
 - continuum of finance from individuals to SMEs
 - responsible finance and financial literacy
 - complementarity with work of global standard setters
 - data for effective policy making and financial product development



G20 initiatives

- G20 set up Global Partnership for Financial Inclusion
- Support provided by World Bank Group and AFI
- Three GPFI subgroups
 - SME finance
 - work with standard setting bodies
 - data and measurement
- Proposal to explore issue of consumer protection and literacy
- Data group to identify
 - existing FI data landscape
 - assessing data gaps
 - develop key performance indicators



G20 set of FI indicators

- Basic set
 - Formally banked adults
 - Adults with credit by regulated institution
 - Formally banked enterprises
 - Enterprises with credit by regulated institution
 - Points of service
- Secondary set – in development
 - Payments and remittances
 - Credit information
 - Financial capability
 - Financial consumer protection



Initiatives supported by the World Bank Group

- Supports G20 GPMI
- Released in 2012 the Global Financial Inclusion (Global Findex) Database, funded by Bill and Melinda Gates Foundation in partnership with Gallup
 - Covers 148 countries
 - Measure how women, men and youth save, borrow, make payments and manage risks
 - Comprehensive, comparable dataset
 - Can track effect of FI policies globally
- Various other global surveys (enterprise, payment systems, consumer protection, remittances) and assist national surveys
- WB FI Global Practice (projects in over 60 countries)
- Work with IMF on Financial Access Survey
- House the Consultative Group for Assisting the Poor (CGAP)



Consultative Group to Assist the Poor, CGAP (1)

- Independent policy and research center dedicated to advancing financial access for the world's poor
- Supported by 30 development agencies and private foundations
- Provides market intelligence, promotes standards, develops innovative solutions and offers advise to
 - governments
 - financial service providers
 - donors
 - investors
- Report on Financial Access in 2009, 2010 and 2011



Consultative Group to Assist the Poor, CGAP (2)

- 2011 report reviews “supply-side” data landscape
 - Access to financial services (branches, ATMs ...)
 - Usage of financial services (number of accounts ...)
 - Quality of products and services (pricing, client value, core tenets of consumer protection and financial capability such as literacy)
- Sources of data
 - Demand-side data from users (typically surveys)
 - Supply-side data from financial service providers
 - Demand and supply-side data are complementary



Some other international organisations

- IMF: Financial Access Survey
- OECD
 - Financial Literacy Network
 - Financing SMEs and Entrepreneurs
 - Handbook on Constructing Composite Indicators
- International Association for Research on Income&Wealth
- BIS
 - Home of various Standard Setting Bodies which meet with key stakeholders re FI policies
 - CPSS with data on payment systems
 - Secretariat of the Irving Fisher Committee
 - Own composite indicators for financial stability



Princess Máxima of the Netherlands at the BIS





The Irving Fisher Committee on Central Bank Statistics

- Forum for economists and statisticians to discuss data issues related to economic, monetary and financial stability of interest to central banks
- Housed at the Bank for International Settlements
 - All 60 BIS shareholders are member (total 75 members)
 - Yearly report to BIS Governors
 - Secretariat at the BIS
- Affiliated with the International Statistical Institute



The Irving Fisher Committee on Central Bank Statistics (2)

- Organises conferences, seminars, workshops
- Publishes Bulletin and Working Papers
- Cooperates with other international statistical bodies or data groups



Some other international initiatives (1)

- Alliance for Financial Inclusion (AFI)
 - Network of central banks, supervisors and other financial regulatory authorities (95 members from 81 countries)
 - Membership overlaps partly with BIS/IFC
 - Focuses on peer learning and knowledge sharing
 - 35 members made concrete FI commitments
 - Support G20 GPFI in all three sub-groups and G20 Peer Learning Programme
 - Data Working Group



Some other international initiatives (2)

- Microfinance Information Exchange (MIX)
 - Washington-based non-profit international organisation that collects, validates, and analyses microfinance data
 - Various private sector partner organisations
- Finmark/Finscope
 - FinMark Trust, independent trust set up in 2002 with initial funding of UK Dept for Int Development)
 - Finscope surveys: consumer survey (demand and supply side), small business
 - FI indicators for various (12) African countries



Some other international initiatives (3)

- Center for Financial Inclusion (NY-based group of key industry participant)
- Some regional initiatives
- Various donor organisations, eg Gates Foundation



National data initiatives re financial inclusion and data (1)

- Many countries participate in international data collections of World Bank Group, AFI, Finsope and others
- Also national initiatives under different headings
- Kenya: M-PESA mobile payment system
- South Africa: academic research incl by Centre for Inclusive Banking in Africa
- Brazil: Inclusao Financeira (Forum holding yearly meeting, last one in Porto Alegre, 29-31 October 2012), measures to monitor development of network of bank correspondents
- Belgium, Italy: studies in income & wealth by central bank



National data initiatives re financial inclusion and (2)

- Portugal: measuring the evolution of financial services, incl through data from payment systems, Central Credit Register and Central Bank Balance Sheet Data Office
- France: National Database on Household Credit Repayment Incidents
- India: research topic of RBI's Centre for Advanced Financial Research and Learning (CAFRAL)



National data initiatives re financial inclusion and data (3)

- US: Federal Reserve involvement in Community Development Finance
- United Kingdom:
 - HM Treasury initiative: Financial Inclusion Force
 - Private sector: Transact – the National Forum for FI
 - Non-for-profit think tank: the Financial Inclusion Centre
- Interest in many other countries as reflected in central bank speeches



Central banks speeches

- BIS contains list of speeches by senior central bank executives
- Speeches on “financial inclusion” since early 2011
 - India (8)
 - Kenya, United States (5)
 - Fiji, Namibia, Pakistan (3)
 - Albania, Mexico, Solomon Islands, Uganda, Zambia, (2)
 - Curacao and St Maarten, Ireland, Malaysia, Mauritius, Philippines, Saudi Arabia, Serbia (1)



General observations (1)

- Various definitions of financial inclusion (confusing?)
- Importance of good data for good policy
- FI is multidimensional concept
- Different dimensions need to be measured
 - Access
 - Usage
 - Qualitative information
- Various international initiatives to provide methodological guidance and coordinate international data collections using standard indicators



General observations (2)

- Importance of detailed national data on various country-specific issues (one size does not fit all)
- Micro data important to improve analysis
- Some efforts exist to develop composite indicators at national and international level
 - Simple measures so far
 - But methodological issues need to be addressed
- Need for cooperation at international and national level
- Central bank statistical functions have expertise and are ready to assist



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

Towards a global financial inclusion data infrastructure¹

Djibril M Mbengue, Consultative Group to Assist the Poor, World Bank

¹ This presentation 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.



Advancing financial access for the world's poor

Towards a Global Financial Inclusion Data Infrastructure

**Djibril M. Mbengue
Microfinance Specialist
November 5, 2012**

Raul Hernandez-Coss – An Inspiration

“Data could be a means to put the cards on the table; data are less controversial than policies and can get policy makers and regulators to start talking.”

GPFI Data and Measurement Sub-group

Context:

Global Partnership for Financial Inclusion (GPFI)

- ❑ Created in 2010
- ❑ Three sub-groups, and one in formation
- ❑ Implementation partners (AFI, CGAP, IFC, and the World Bank)

Financial Inclusion Data and Measurement Sub-group

- ❑ Co-chairs: Australia, Mexico, South Africa
- ❑ Key achievements:
 - ✓ G-20 Basic Set of Financial Inclusion Indicators developed and adopted by Leaders
 - ✓ Publication: “Financial Inclusion Data: Assessing the Landscape and Country-Level Target Approaches

Financial inclusion

DEFINITION

“Financial inclusion” refers to a state in which all working age adults have effective access to credit, savings, payments, and insurance from formal service providers.

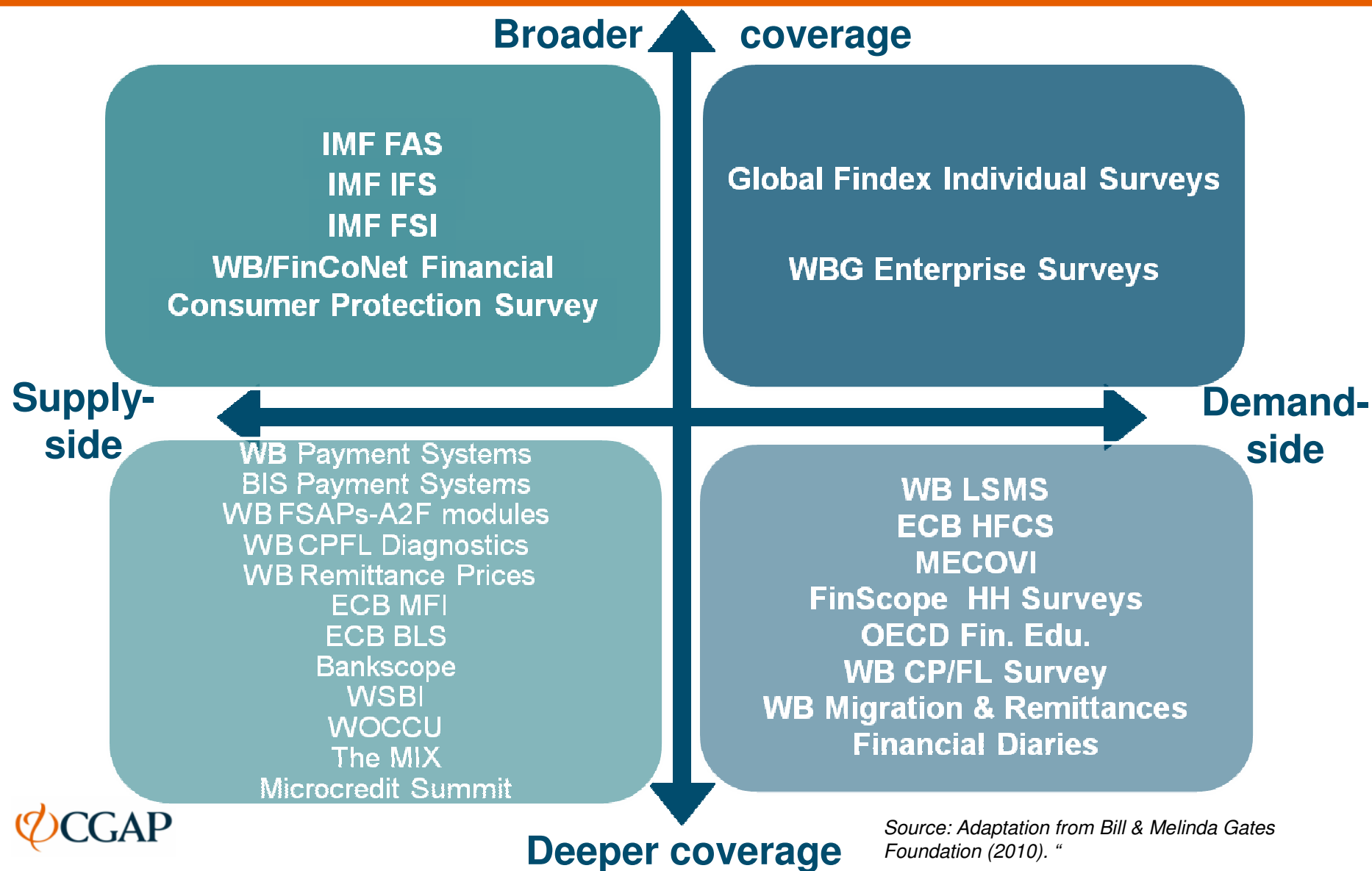
THREE DIMENSIONS

ACCESS

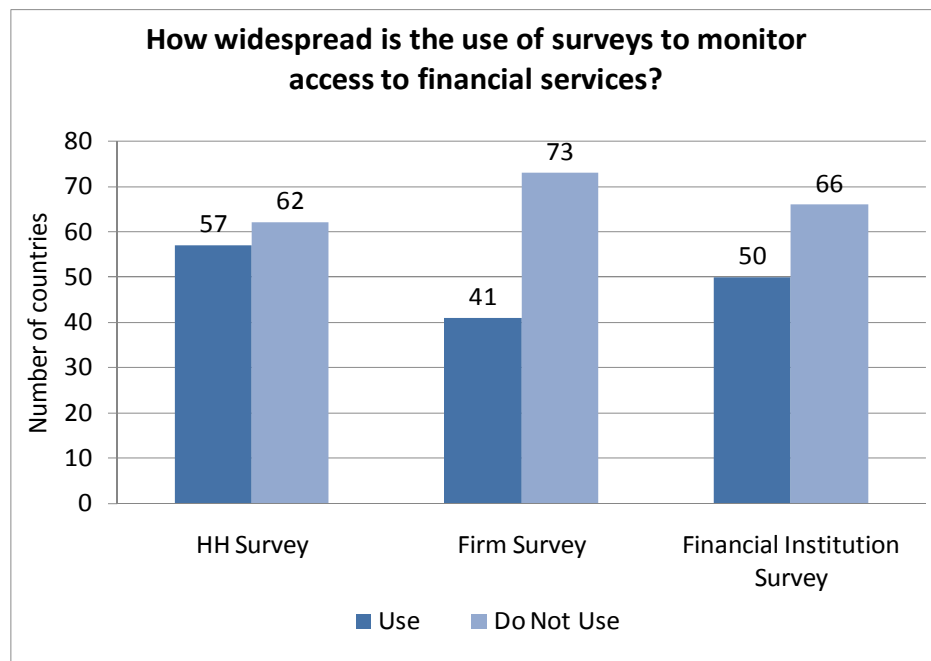
USAGE

QUALITY

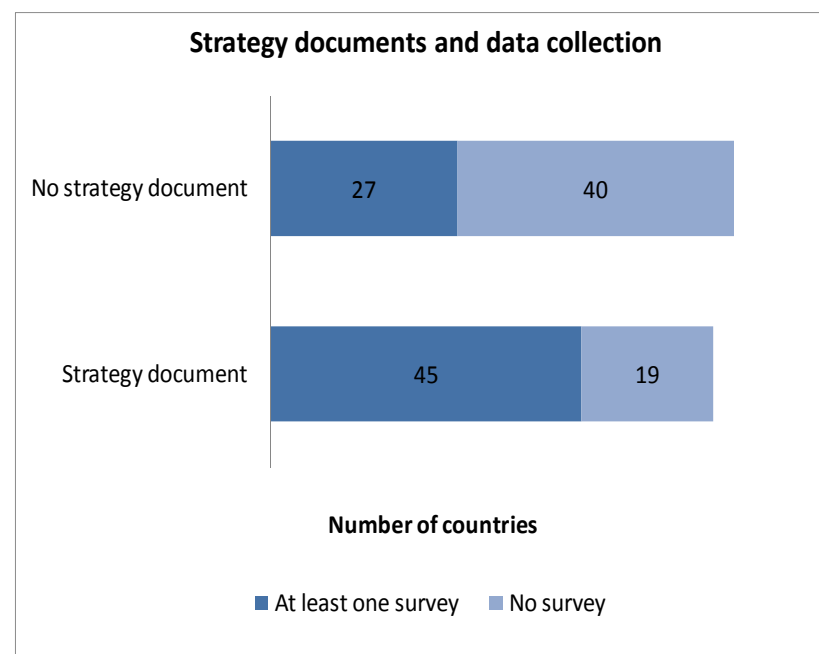
Robust financial inclusion data architecture is emerging



Widespread use of surveys at country level is correlated with use national inclusion strategies



Source: CGAP/WBG Financial Access database. Based on responses by 120 countries.



Note: CGAP/WBG Financial Access database. Based on responses from 131 countries.

The G20 Basic Set of Financial Inclusion Indicators

Categories		Indicators	Existing Global / Multi-country Source	Dimension of Financial Inclusion Measured
1	Formally banked adults	% of adults with an account at a formal financial institution	Global Findex	Usage
		Number of depositors per 1,000 adults OR number of deposit accounts per 1,000 adults	IMF FAS	
2	Adults with credit by regulated institutions	% of adults with at least one loan outstanding from a regulated financial institution	Global Findex	Usage
		Number of borrowers per 1,000 adults OR number of outstanding loans per 1,000 adults	IMF FAS	
3	Formally banked enterprises	% of SMEs with an account at a formal financial institution	WBG Enterprise Surveys	Usage
		Number of SMEs with deposit accounts/number of deposit accounts OR number of SME depositors/number of depositors	IMF FAS	
4	Enterprises with outstanding loan or line of credit by regulated institutions	% of SMEs with an outstanding loan or line of credit	WBG Enterprise Surveys	Usage
		Number of SMEs with outstanding loans/number of outstanding loans OR number of outstanding loans to SMEs/number of outstanding loans	IMF FAS	
5	Points of service	Number of branches per 100,000 adults	IMF FAS	Access

Supply Side: IMF Financial Access Survey

First launched at IMF/WB Annual Meetings in Istanbul, 2009

IMF FAS – 2012 and beyond

- Only global supply-side data source with comparable data on basic indicators of financial access and usage (187 economies)
- G20 Leaders in Cannes 2011 endorsed a recommendation for IMF to continue and improve FAS
- 2012 FAS is conducted by the IMF, with IFC and CGAP support
- 2012 FAS questionnaire enhancements
 - ✓ time series for credit unions, financial cooperatives, and microfinance institutions
 - ✓ separate identification of SMEs, households, life insurance, and non-life insurance companies



<http://fas.imf.org>

Demand Side: Global Index & Enterprise Surveys

Enterprise Surveys

- Measures the use of financial services by small, medium, and large enterprises
- Conducts firm-level surveys of a representative sample of an economy's private sector
- Surveyed over 130,000 companies in 135 economies

<http://www.enterprisesurveys.org>

Global Financial Inclusion Database (Global Index)

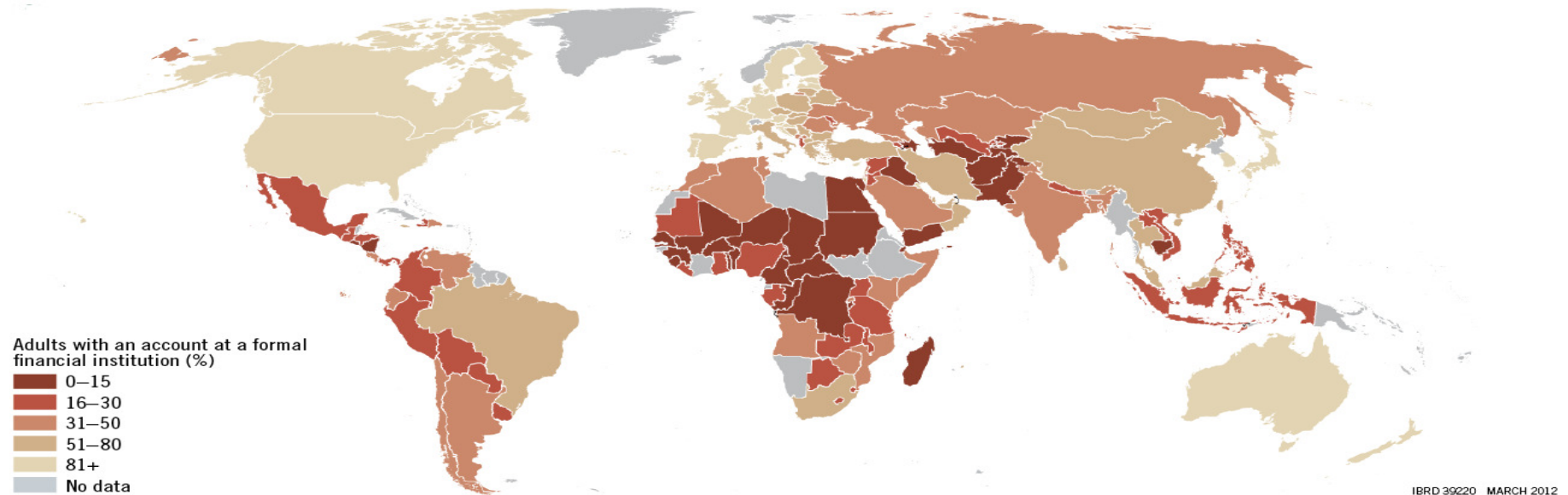
- Measures the use of formal and informal financial services by individuals through the Gallup World Poll Survey
- Surveyed in 2011 over 150,000 individuals from 148 countries on payments, savings, credit and insurance

<http://www.worldbank.org/globalfinde>

[X](#)

Formally Banked Adults

Account penetration around the world



Source: Demirguc-Kunt and Klapper 2012.

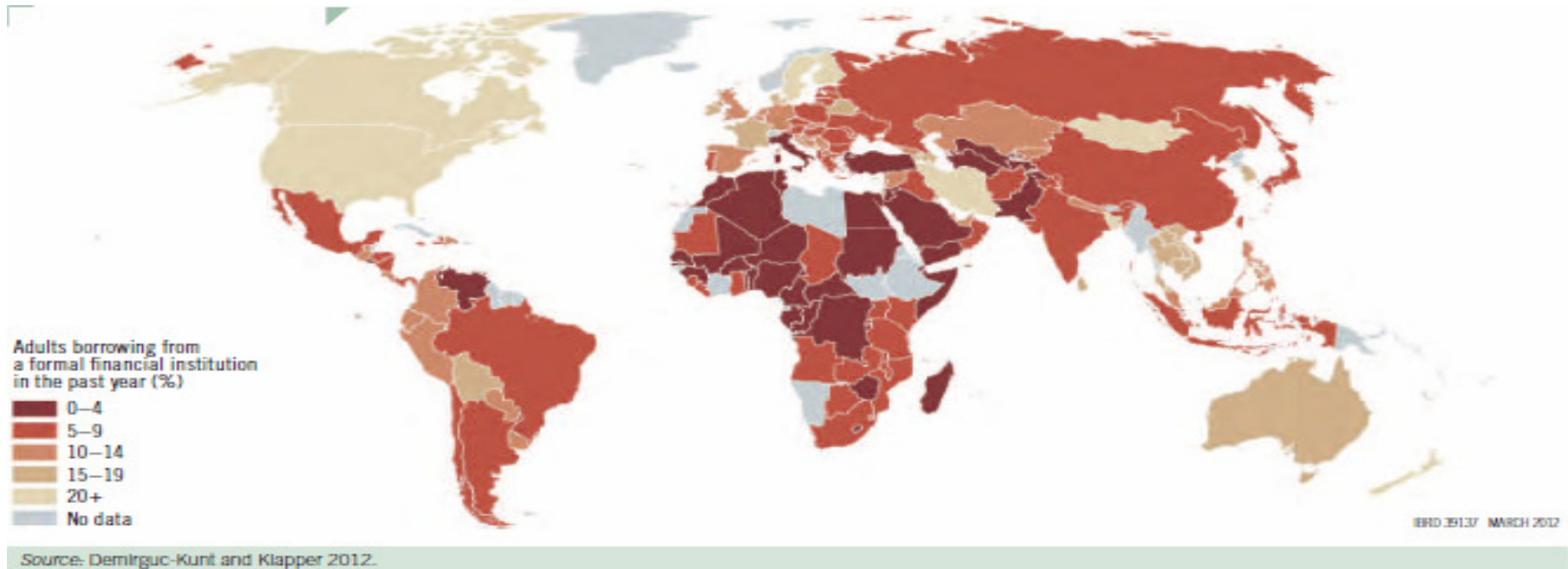
- 41% of adults in developing economies are banked—compared to 89% of adults in high-income economies.
- 37% of women in developing economies are banked—compared to 46% of men
- The lowest quintile of adult income earners in developing countries are less than half as likely to have an account than those in the highest quintile.



* The IMF's FAS provides other measures of Formally Banked Adults: the number of depositors per ,1000 adults OR the number of deposit accounts per 1,000 adults

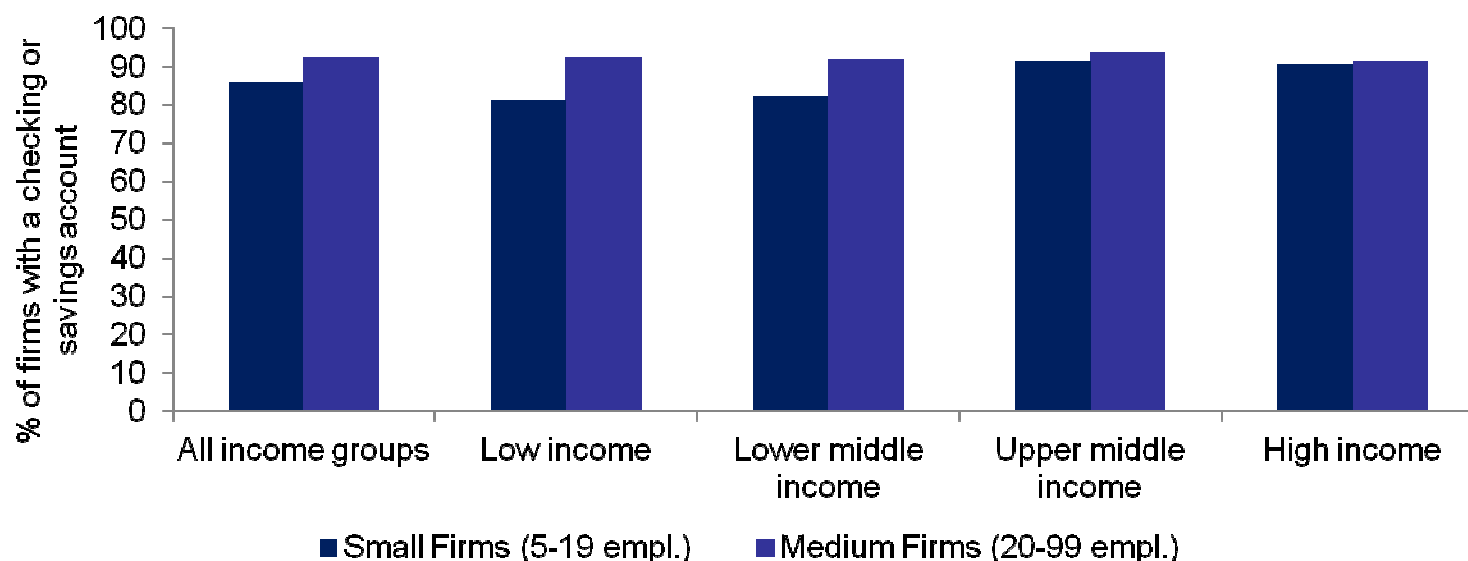
Adults with Credit by regulated institutions

Origination of New Formal Loans around the World



- 8% of adults in developing economies borrowed money from a formal lender in the past year (excluding credit card debt) —compared to 14% of adults in high-income economies

Formally Banked Small & Medium Enterprises



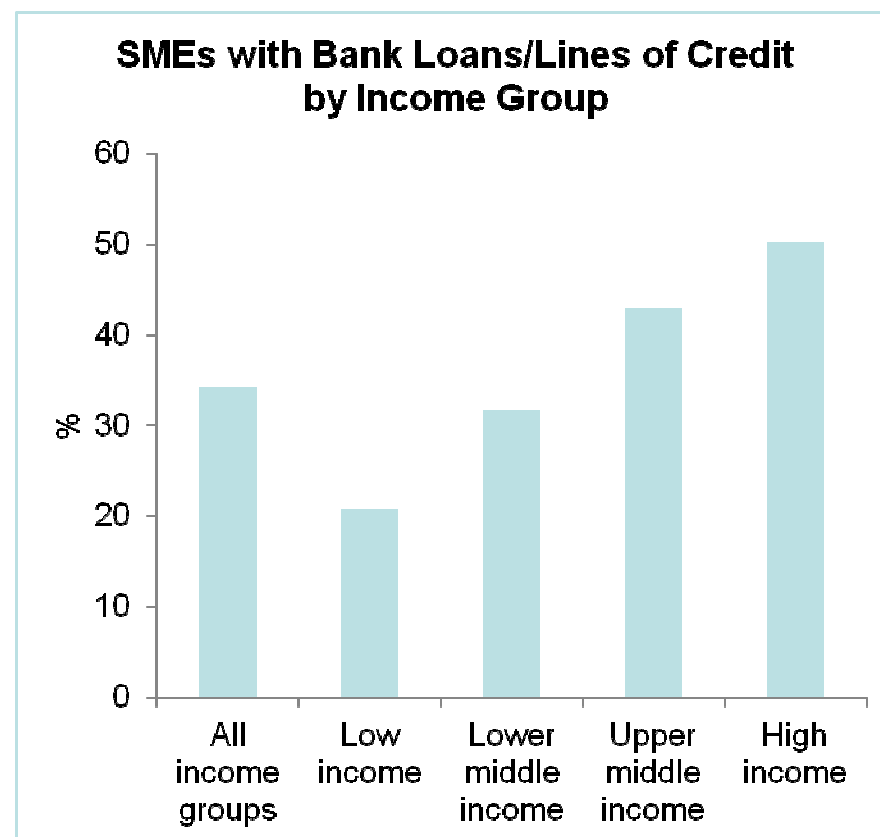
- The Enterprise Survey data shows that 87% of SMEs (5-99 employees) have a checking or savings account at a formal financial institution
- 86% of small firms (5-19 employees) have an account, compared to 93% of medium firms (20-99 employees)
- 91% of small firms in Latin America and the Caribbean have an account, compared to 77% of small firms in South Asia



* The IMF's FAS provides other measures for formally banked enterprises : the number deposit accounts by SMEs (% of number of deposit accounts by non-financial corporations) OR number of SME depositors (% of number of non-financial corporation depositors)

Small & Medium Enterprises with a Bank Loan or Line of Credit (L/C)

- The Enterprise Survey data shows that 34% of SMEs (5-99 employees) have a bank loan or L/C
- 21% of SME's in Sub-Saharan Africa have a bank loan or L/C, compared to 36% of SME's in East Asia and the Pacific
- 35% of firms with a female senior manager has a bank loan or L/C, compared to 38% of firms with a male senior manager

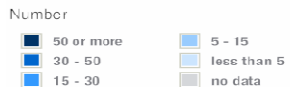
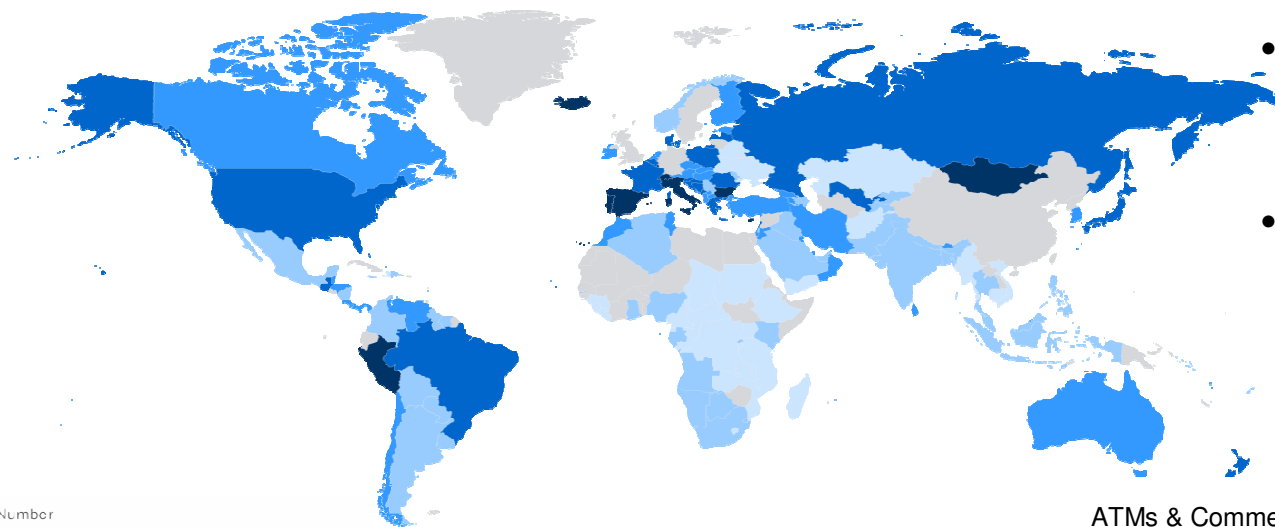


Points of Service

IMR Data Mapper

Commercial bank branches per 100 FBT adults (2011)

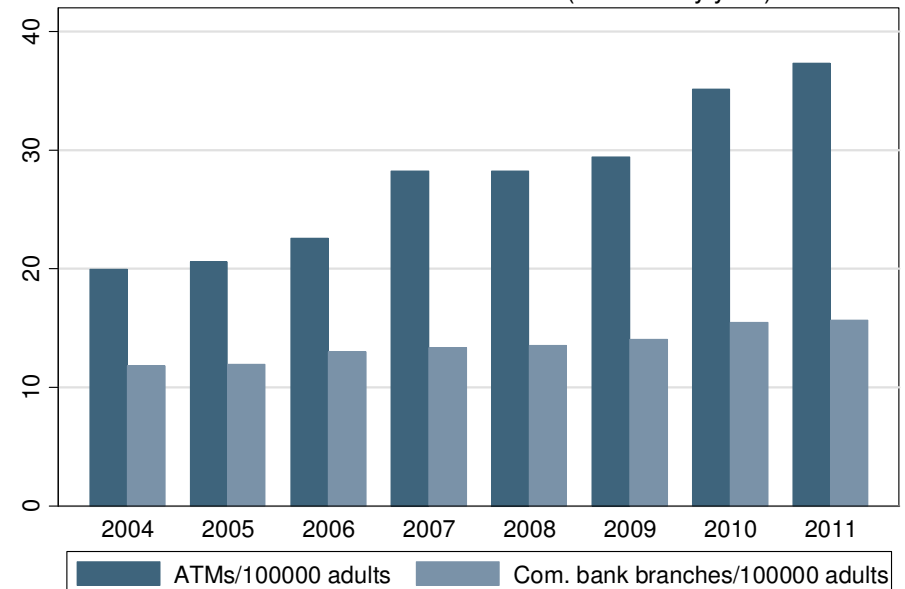
Source: IFF: Financial Access Survey (FAS)



- Low-income countries have 3.3 commercial bank branches and 3.9 ATMs per 100,000 adults in 2011 – compared to 47 commercial bank branches and 18 ATMs per 100,000 adults for the world as a whole
- These numbers were 2.9 and 0.3 for branches and ATMs, respectively, in 2004 for low-income countries.

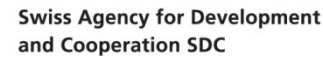
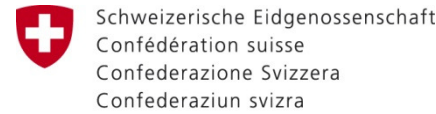
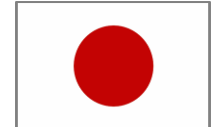
- Physical outreach of banks is improving on average.
- ATM networks are expanding faster than commercial bank branches.

ATMs & Commercial Bank Branches (medians by year)



The journey continues... a few priorities

- ✓ **Country-level data**
- ✓ **Harmonized definitions and standardized methodologies.**
- ✓ **Data from a range of providers, beyond commercial banks.**
- ✓ **Establishing and using financial identify.**
- ✓ **Detailed data on customer segments.**
- ✓ **Firm data, especially that of micro, very small, and small enterprises.**
- ✓ **Open data.**



Advancing financial access for the world's poor

www.cgap.org

www.microfinancegateway.org



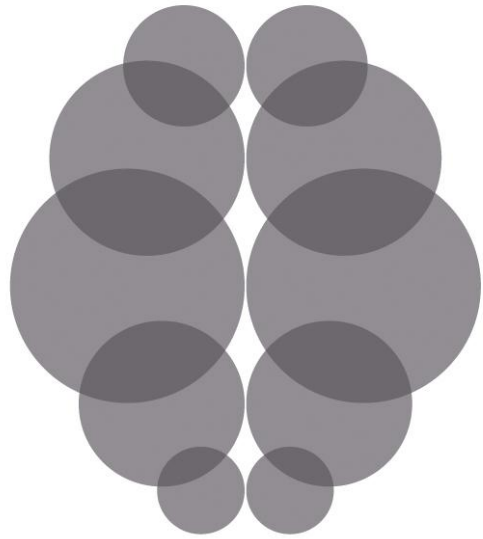


IFC Workshop on Financial Inclusion Indicators
Co-hosted by Bank Negara Malaysia
5 – 6 Nov 2012, Sasana Kijang, Kuala Lumpur

The role and functions of the Alliance for Financial Inclusion¹

Sung-Ah Lee, Alliance for Financial Inclusion

¹ This presentation 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.



afi Alliance for
Financial Inclusion
Bringing smart policies to life

Workshop on Financial Inclusion Indicators
5-6 November 2012, Sasana Kijang, Kuala Lumpur

Sung-Ah Lee, AFI

1. About AFI
2. Data in policy making
3. Data in the AFI network
4. FIDWG and its approach
5. How FIDWG fits with other areas and initiatives



- AFI is a global network of **financial sector policymakers in developing and emerging countries**
- Founded in 2008, AFI focuses on **peer learning and knowledge sharing** among policymakers and regulators
- The goal of the AFI network is to accelerate the **adoption of successful financial inclusion policy solutions**

AFI Values

Inclusivity: all partners and proven solutions are welcome

Diversity: unique member conditions, unique member solutions

Demand-Driven: action is derived from member needs and demands

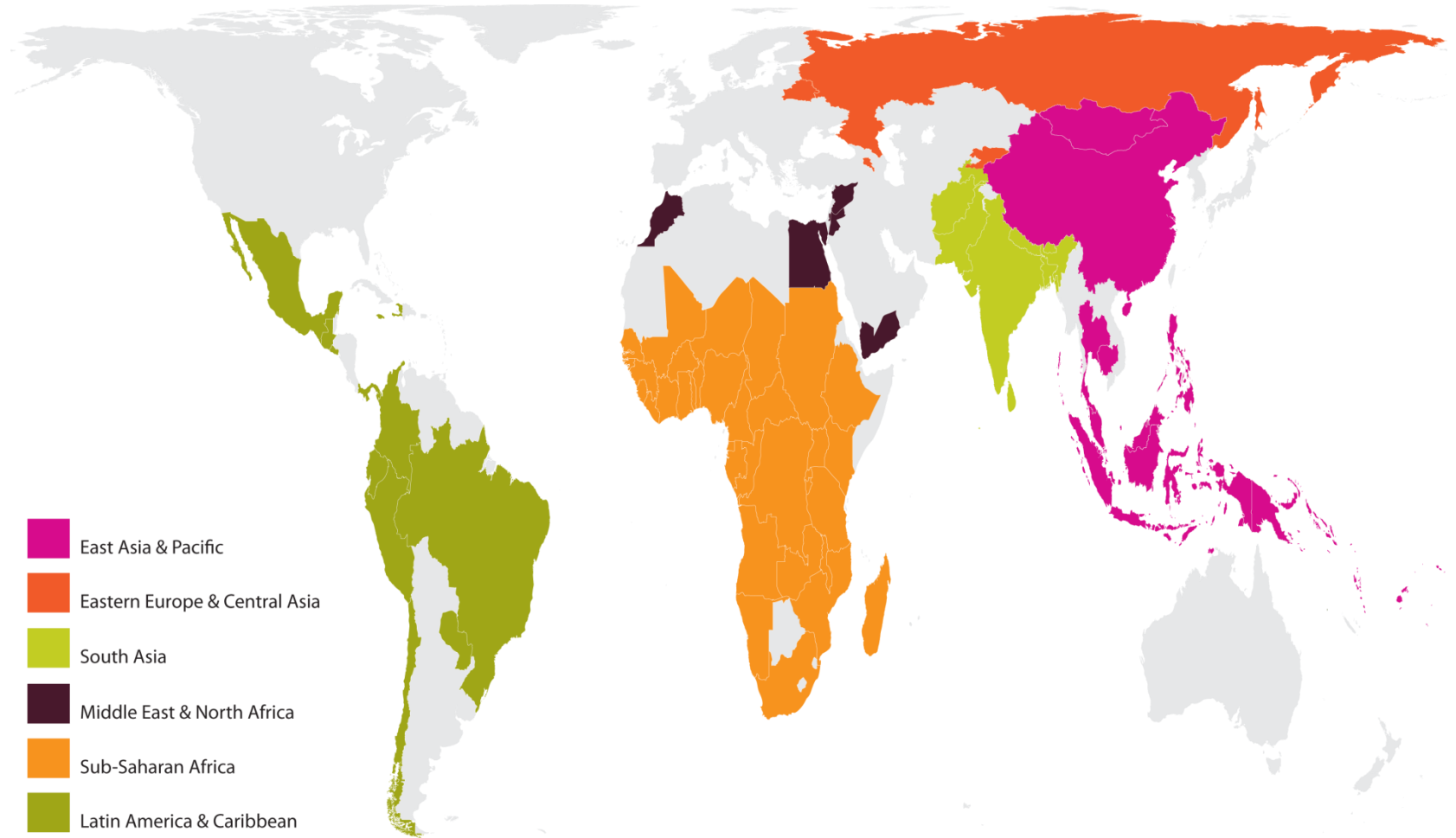
Empowerment: unlocking the knowledge of the AFI membership

Ownership: members shape and drive AFI activities

Alignment: actions reflect national priorities of the AFI membership

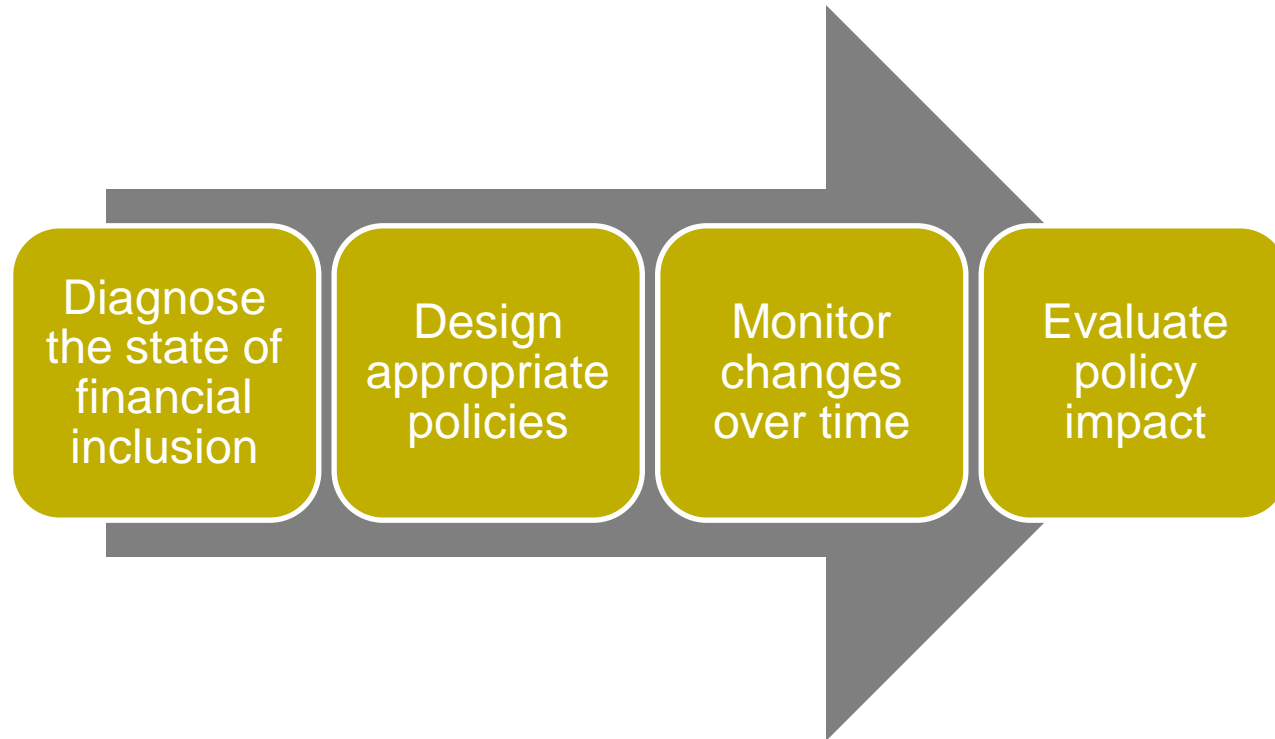
Evidence based: focus on practical solutions with evidence

The AFI Network Today



95 member institutions from 81 countries

Data and measurement is key for evidence based policy making!



Strong demand from member institutions to discuss and learn from each other

It started in June 2010 at this very place...

“To provide access to financial services tailored to the needs of the population”

Banco do Brazil

“The process of ensuring access to financial services and timely and appropriate product to all members of the population and vulnerable groups at an affordable cost in a fair and transparent manner by the mainstream institutional players.”

Reserve Bank of India

“Broad access to a portfolio of financial products and services which include loans, deposit services, insurance, pensions and payment systems, as well as financial education and consumer protection mechanisms”

**Superintendencia de Banca, Seguros y AFP
(SBS) del Peru**

“Financial Inclusion refers to the access and use of a portfolio of financial products and services for the majority of adult population with clear and concise information attending the growing demand under an appropriate regulatory framework”.

National Banking Commission in Mexico

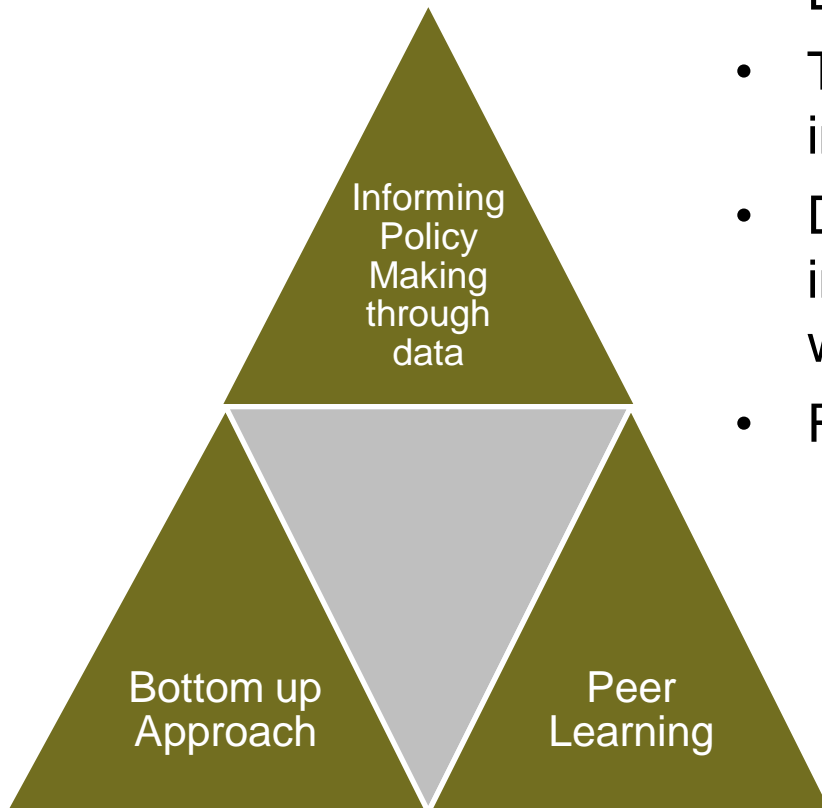


Let's agree on the elements (Access, Usage, Quality) and a common framework

Objectives

- Develop a common framework among AFI members for measuring financial inclusion
- Share lessons learned on survey methodology, analysis, target setting and usage of data to inform policymaking
- Promote the adoption of the framework in a broader international context

The main purpose of Data in the AFI network is to inform national policy making

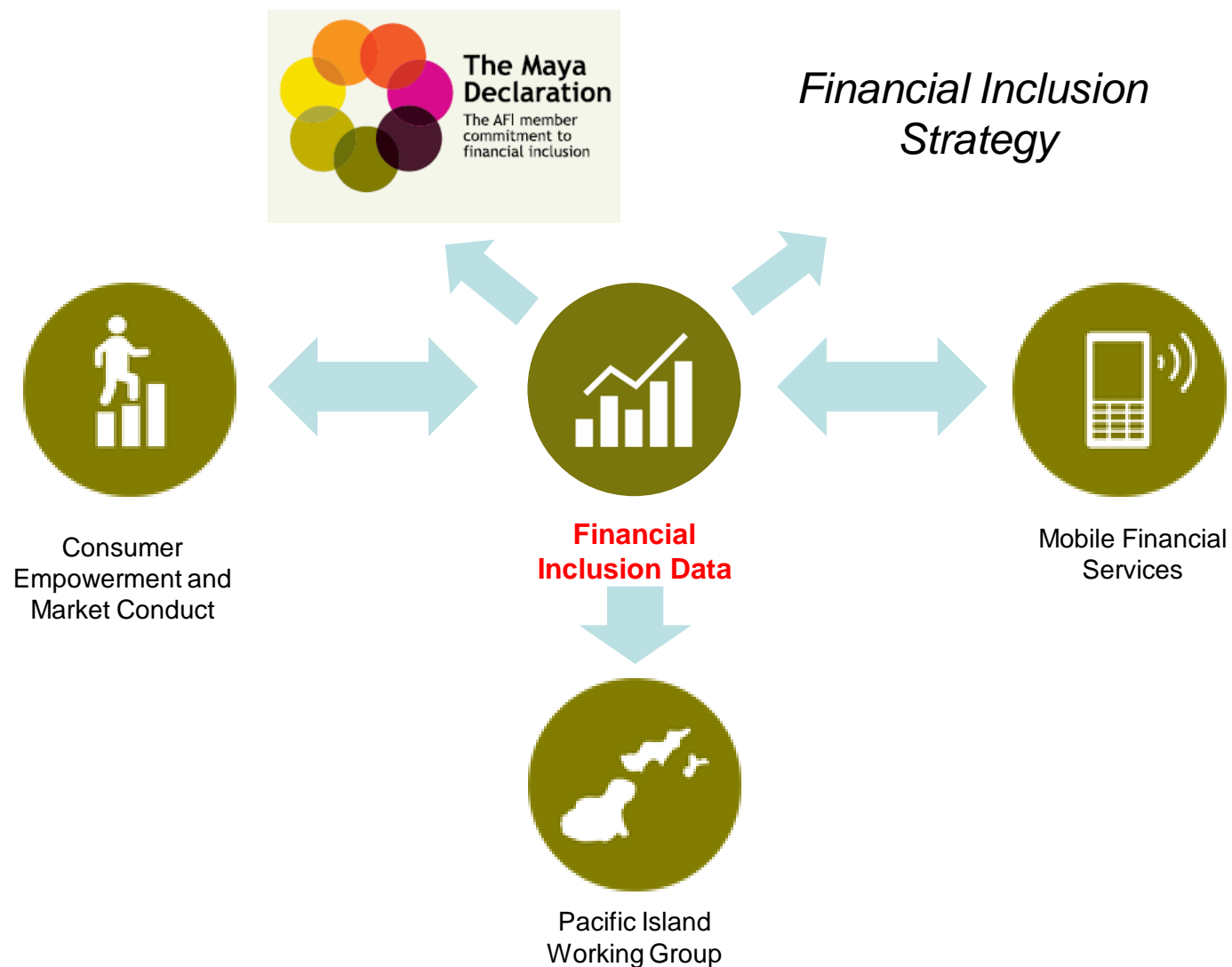


- Develop technical capacity in countries
- Testing new (second generation) indicators in practice
- Develop/ choose indicators that best inform each countries policy making while keeping consistency
- Resist global target setting



Each country is able to collect and monitor their own comprehensive FI indicators

FIDWG in the broader network



AFI Data Working Group and GPF

G-20's Global Partnership for Financial Inclusion (GPF)

- Recognized data as a priority
- Created a subgroup on Data & Measurement
- AFI's Data Working Group is represented in the Subgroup through Mexico, Brazil, South Africa, and AFI
- The Core Set of indicators have been adopted by the GPF and was the basis for the GPF Basic set of indicators
- Close collaboration on quality indicators

Thank you

info@afi-global.org

www.afi-global.org



IFC Workshop on Financial Inclusion Indicators
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Measuring the evolution of monetary and financial services in Portugal¹

João Cadete de Matos, Bank of Portugal

¹ This presentation 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.

Irving Fisher Committee on Central Bank Statistics / Bank Negara Malaysia

Workshop on Financial Inclusion Indicators

Sasana Kijang, Kuala Lumpur, 5-6 November 2012

Measuring the Evolution of Monetary and Financial Services in Portugal



João Cadete de Matos
*Director, Statistics Department,
Banco de Portugal*



The *Banco de Portugal*

- Provides for the **stability of the national financial system**, performing for the purpose the function of lender of last resort
- Carries out the **prudential supervision of credit institutions and financial companies**
- Is responsible for supervising the conduct of institutions in their relations with customers – the so-called **banking conduct supervision** – to ensure that institutions act with due diligence, neutrality, loyalty, discretion and respect in their relations with customers, aimed at promoting a careful assessment of their commitments and the risks they may incur
- Regulates, oversees and promotes the smooth operation of **payment systems**, namely within the scope of its participation in the ESCB
- Provides **services to financial institutions** and the public at large via e.g. the *Central Credit Register (CCR)* and the *Central Balance Sheet Database (CBSD)*
- Compiles, analyses and disseminates **monetary, financial, exchange and balance of payments statistics**: instrumental to decision-making; influential to the financial services activities in the economy



Central Credit Register

- The Central credit register (CCR) is a database managed by Banco de Portugal that compiles information supplied by reporting institutions (institutions that grant loans) concerning the credit liabilities of their clients (individuals and organizations)
- The main purpose of the CCR is to support credit institutions when evaluating the risk of granting credit to the economic agents, allowing them to obtain information on the aggregated indebtedness of their clients or any individual or organization asking for a loan.



Hamurabi code (1700 BC)

280 clauses

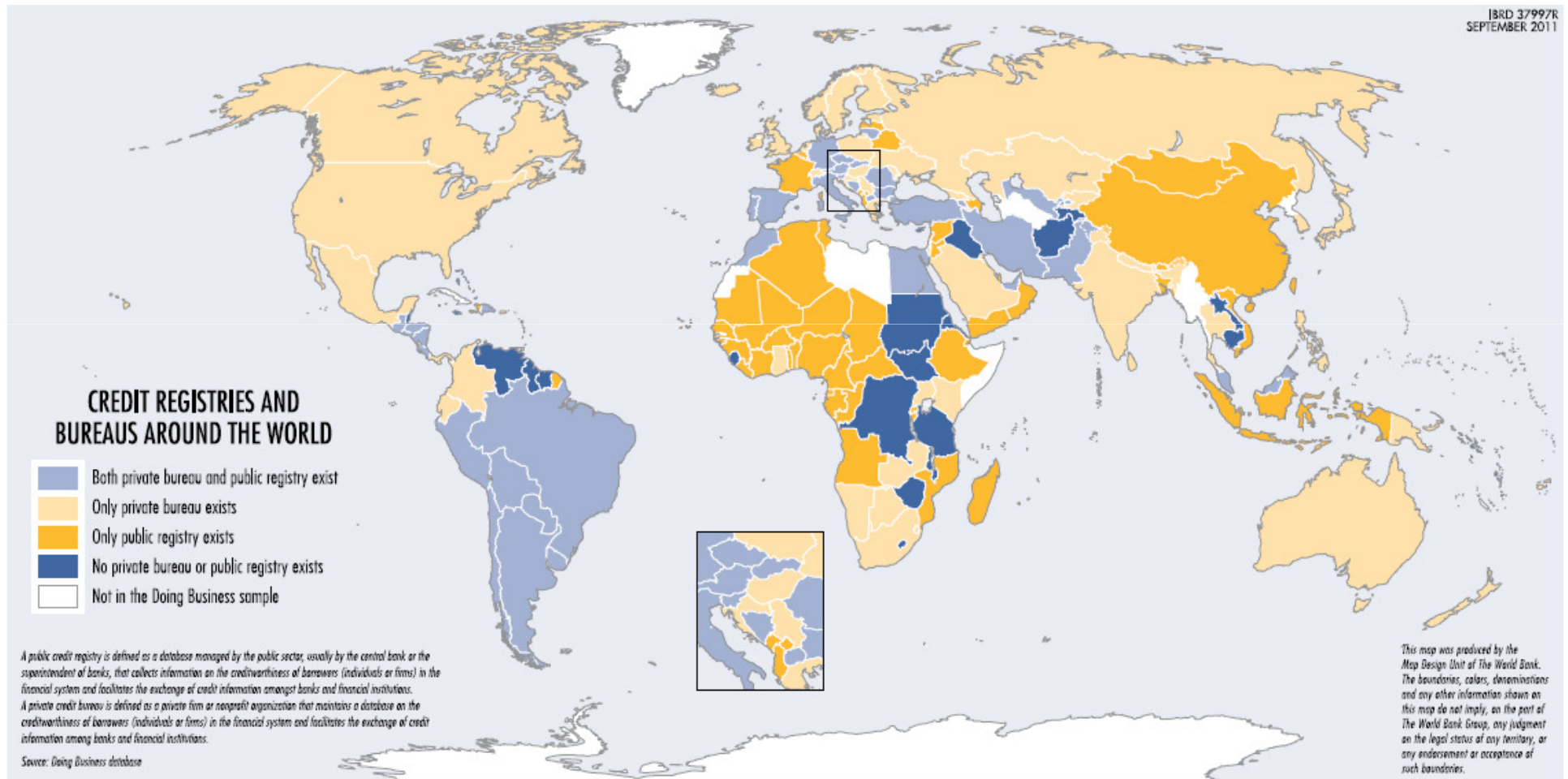
48. If anyone owes a debt for a loan, and a storm prostrates the grain, or the harvest fails, or the grain does not grow for lack of water; in that year he needs not give his creditor any grain, he washes his debt-tablet in water and pays no rent for that year



Workshop on Financial Inclusion Indicators, Kuala Lumpur, 5-6 November 2012

Measuring the Evolution of Monetary and Financial Services in Portugal

Countries with public credit registers or private credit bureaus

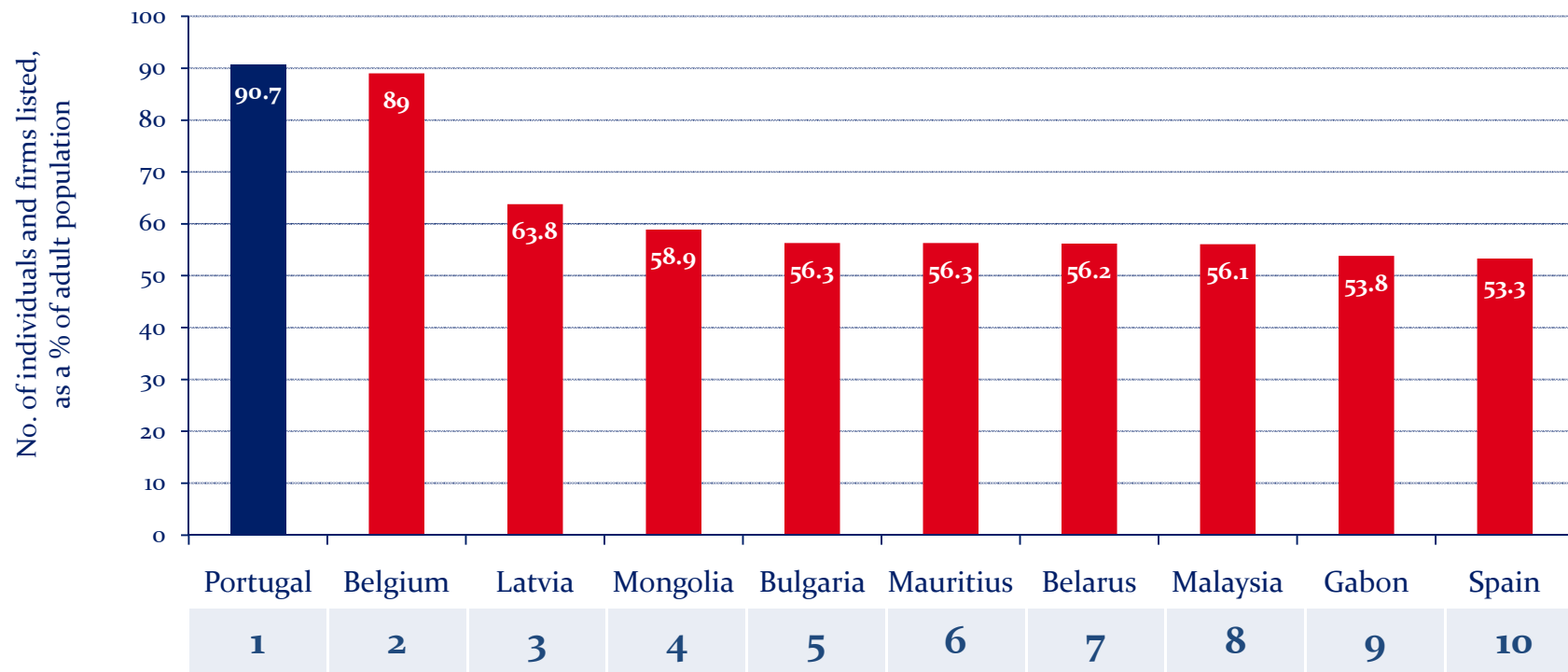




- Data reported include, *inter alia*: loans outstanding granted to households and corporations by type and purpose; potential loans and securitised loans; type and value of collateral or guarantee; original and residual maturity; credit defaults and the number of days the loan is past due; country where the loan was granted
- Some noteworthy figures concerning the CCR:
 - threshold: > EUR 50
 - 5.6 million private individuals registered
 - over 280 thousand corporations registered
 - more than 200 participants
 - 15 types of financial products
 - 23.4 million monthly records (2012 average)
 - 280 million annual movements



Public Credit Registry Coverage Indicator Ranking – Top 10



Source: "Doing Business 2013", World Bank / International Finance Corporation



The statistical analysis of CCR data in Banco de Portugal

The use of CCR data for statistical purposes is explicitly allowed in the Decree-law that regulates the Central credit register.

The CCR, like other micro-data repositories (individual data) has a huge potential as a source of information for statistics and to be used in analytical studies or research papers.

The decision to allocate the management of the CCR to the Statistics department, in 1999, in addition to the deep reformulation of the reporting model and the information system, concluded in 2009, were decisive steps to enlarge the potential of this database as a source of new and detailed statistics on the credit to the economy.



Workshop on Financial Inclusion Indicators, Kuala Lumpur, 5-6 November 2012

Measuring the Evolution of Monetary and Financial Services in Portugal

The statistical analysis of CCR data in Banco de Portugal

Several statistics based in CCR data are presently published, in the Statistical bulletin and Bpstat on-line system, with the following frequency:

Monthly : A.11 – Main indicators – Loans granted by the financial sector
(loans to companies and households)

Quarterly: Statistical bulletin - Chapter B9 – Several tables concerning loans
granted and indicators on overdue loans:

Non financial companies – with a breakdown by branch of activity, region
of residence and by bracket of credit amount;

Households – breakdown by purpose of the loan (Housing; Consumption
and other purposes) and region of residence.

These statistics are published five weeks after the end of each month



Use case: Supporting measures to prevent over-indebtedness

- Complete and reliable credit records;
- Mandatory consultation of indebtedness information;
- Fixation of maximum interest rates in credit operations;
- Action against illicit ways of credit granting;
- Transparency in the description of financial instruments;
- Promotion of financial literacy;
- Balanced and flexible management of payment delays.



Services related to the payment systems

- Monitoring the payment systems
- Assessing compliance with the “*Core Principles for Systemically Important Payment Systems*”
- Issuing regulations
- Exercising moral suasion
- Providing settlement services for banks or payment and clearing systems: catalyst role in developing these systems and promoting coordination among the relevant parties



Substantial increase in the use of technological innovations:

- Creation of **SIBS – Forward Payment Solutions**, a single payment platform that meets banks' needs, while developing their facilities and technology, and extending their international scope. SIBS processes well over 2 billion transactions per year and manages more than 14 thousand ATM, around 270 thousand POS and about 18 million cards. SIBS handles:
 - Transactions originating across various channels – from ATM and POS networks, Internet and mobile phones to onboard units for vehicles, contactless payments, etc.
 - All sort of payment instruments – *e.g.*, cards, direct debits, credit transfers, cheques, ...
 - Interbank clearing of cheques, credit transfers and direct debits
- **Teleprocessing networks** within the larger banks and/or through interbank links



Multibanco

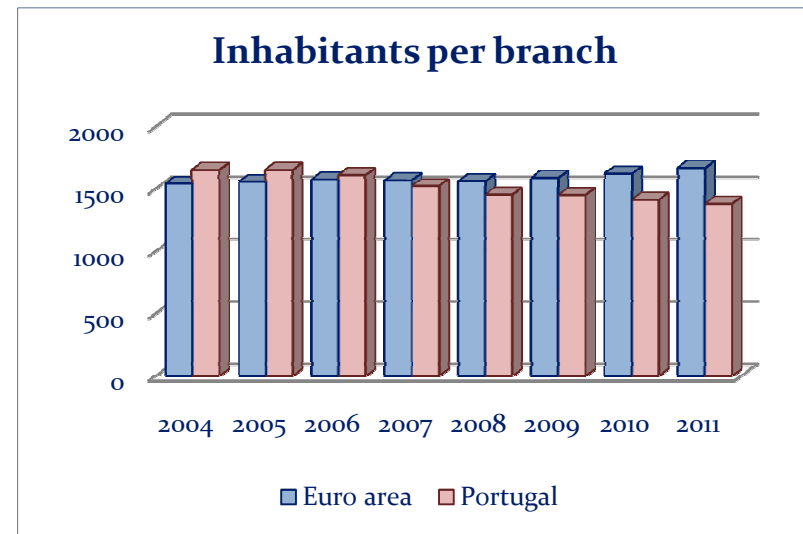
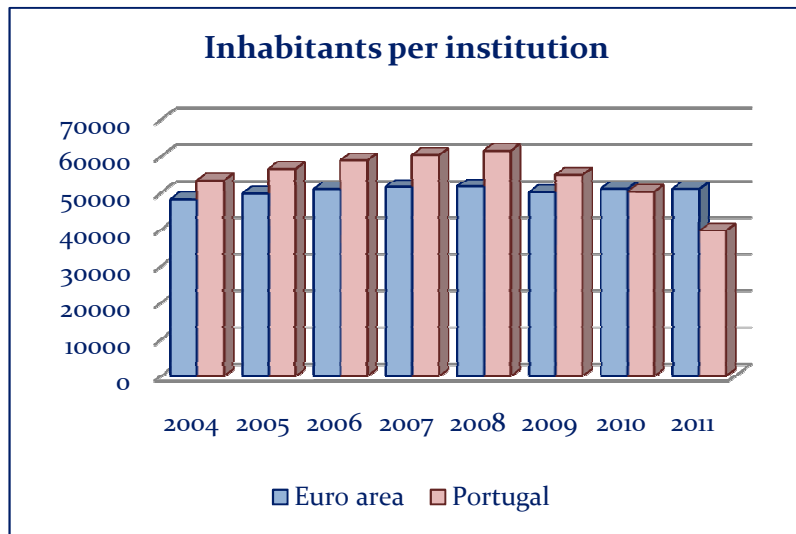
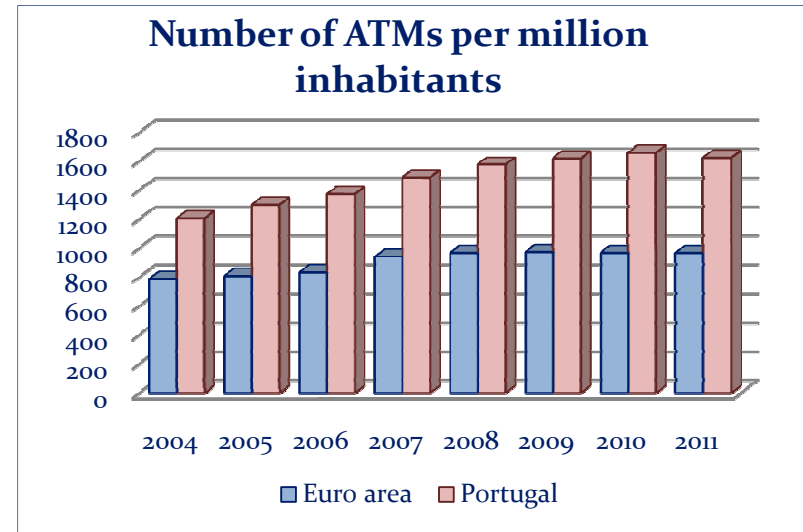
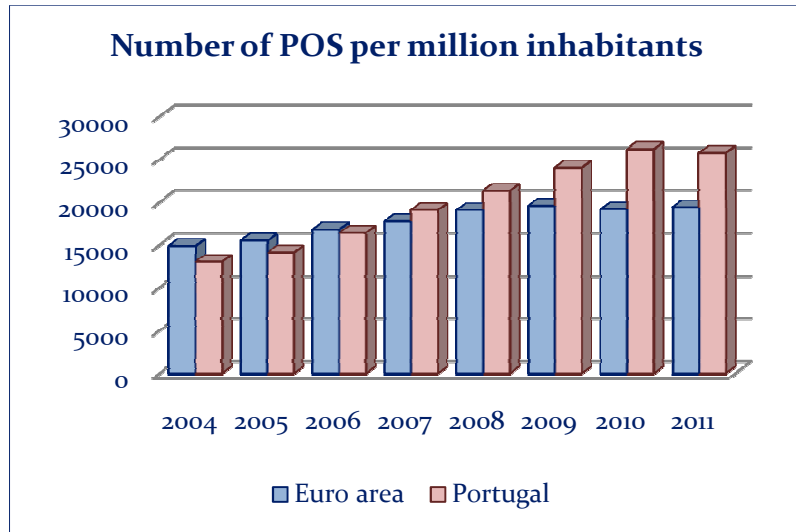
- A sophisticated network shared by every bank operating in the economy that fully integrates ATMs and EFTPOS
- In addition to cash operations, it offers a wide range of more than 60 different services (e.g., money transfers, payments for utilities bills, payments to the State and the Social Security, mobile phone top-ups, transport ticketing, event booking and ticketing, ...)

“A survey (...) looked at the availability and use of non-cash functions at cash machines in other countries. Of survey respondents, the Portuguese were the leaders in cash machine functionality.”

APACS (The UK Payments Association) Report UK Cash & Cash Machines, May 2008



Measuring the Evolution of Monetary and Financial Services in Portugal





Use of Payment Instruments in Portugal

(Quantities in millions and %)

	1991		2001		2011	
	Quantity	As a %	Quantity	As a %	Quantity	As a %
Cheques	231,4	73.0	307,9	28.7	106,7	6.0
Payment cards ¹	43,9	13.8	578,7	54.0	1237,5	69.0
Credit transfers	24,0	7.6	60,2	5.6	202,0	11.3
Direct debits	17,7	5.6	119,1	11.1	243,0	13.6
Other ²	0,0	0.0	6,2	0.6	2,6	0.1

¹ Not including cash withdrawals; ² Includes bills of exchange and e-money purchase transactions.



Home banking and mobile banking

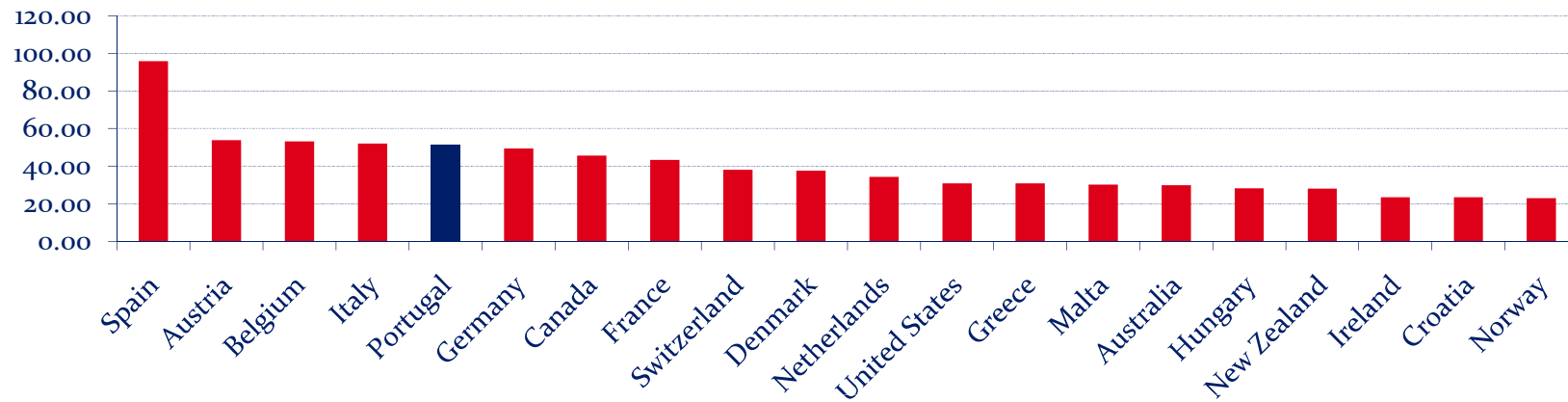
- Third preferred channel to get in touch with a bank – next to ATMs and to face-to-face contact with the bank teller
- The rising number of Portuguese households that have at least one computer at home and access to a broadband Internet connection will likely strengthen the use of home-banking
- Banks get information to their customers no matter where they are and at reduced costs (*e.g.*, access from home, mobile device, hotspots)
- Continuous expansion of **Internet banking** and **m-banking** in Portugal: **improved access to financial services**
 - **Services more affordable and more suited to the prospective customers, particularly the “marginally banked”** – *i.e.*, people with a deposit account that has no electronic payment facilities and no payment card or cheque book, including those that have a bank account but rarely use the related electronic payment facilities and cards



Measuring the Evolution of Monetary and Financial Services in Portugal

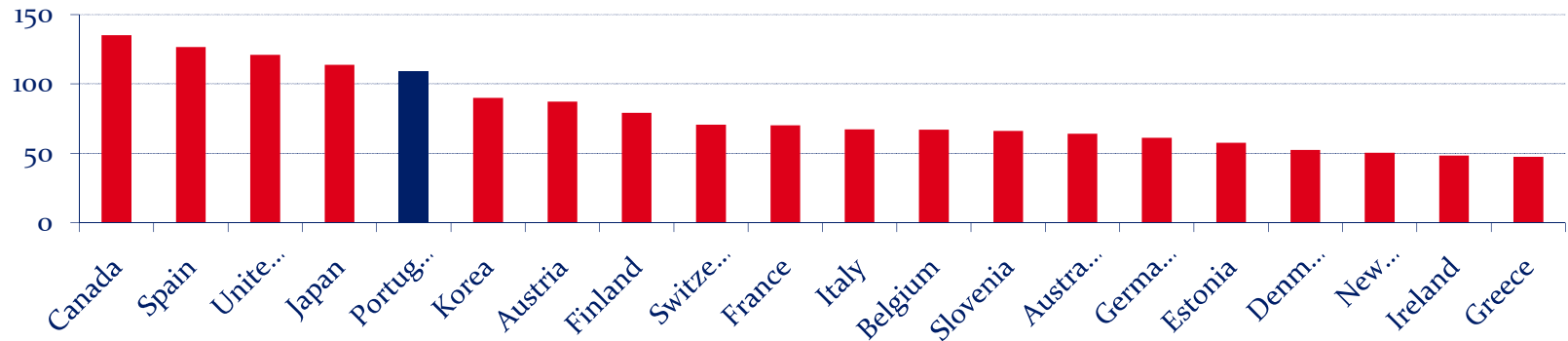
Demographic branch penetration across countries

No. of branches per 100,000 people



Demographic ATMs penetration across countries

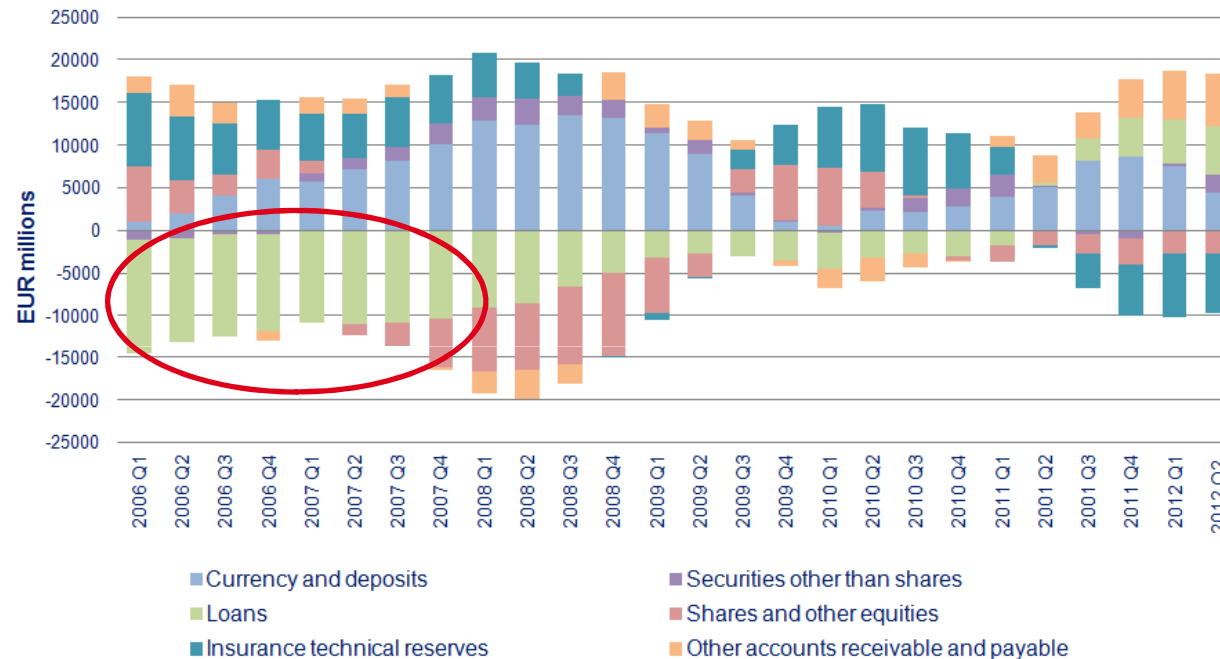
No. of ATMs per 100,000 people



Source: Beck, Demircuc-Kunt & Martinez Peria, "Reaching out: Access to and use of banking services across countries", World Bank, 2005



Changes in households' portfolio composition (consolidated transactions, cumulative four-quarters)

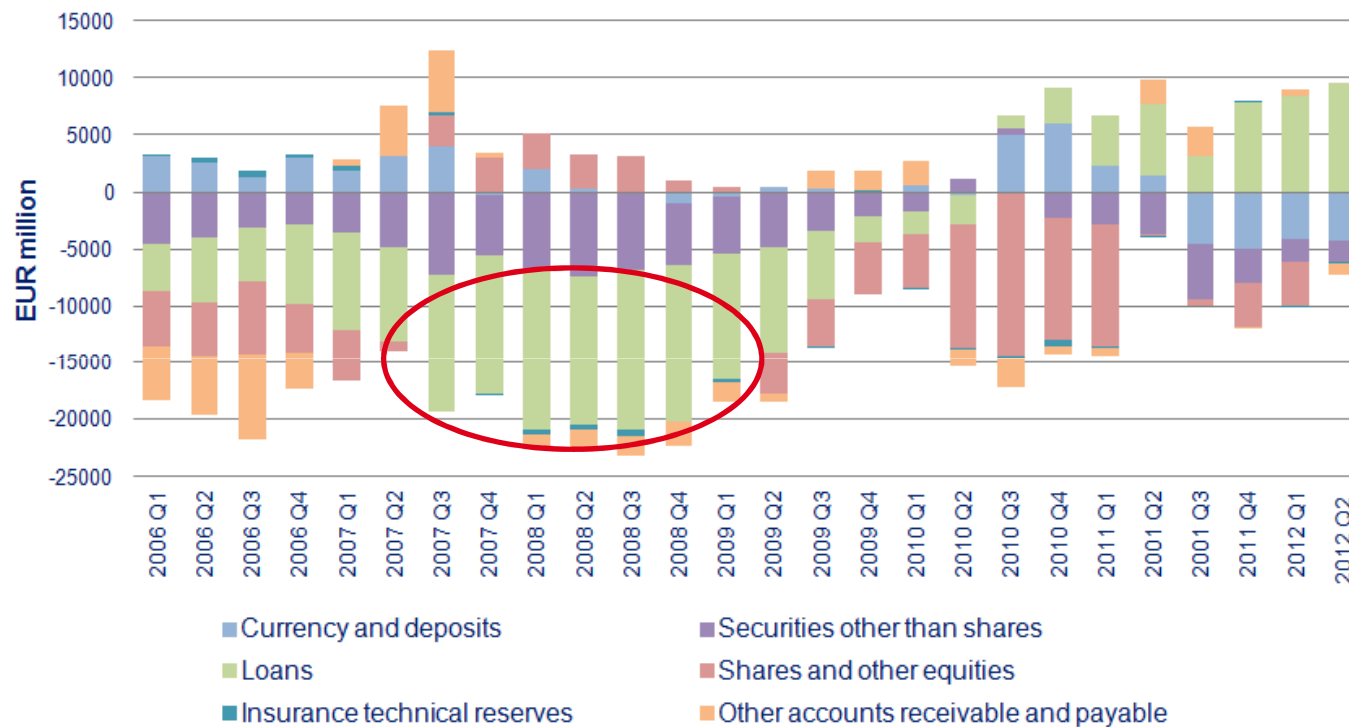


Financial Accounts data:

- Composition of assets and liabilities by type of instrument
- On the asset side, mostly deposits
- On the liability side mostly loans (2006-2007 when credit expanded)



Changes in NFC' portfolio composition (consolidated transactions, cumulative four-quarters)

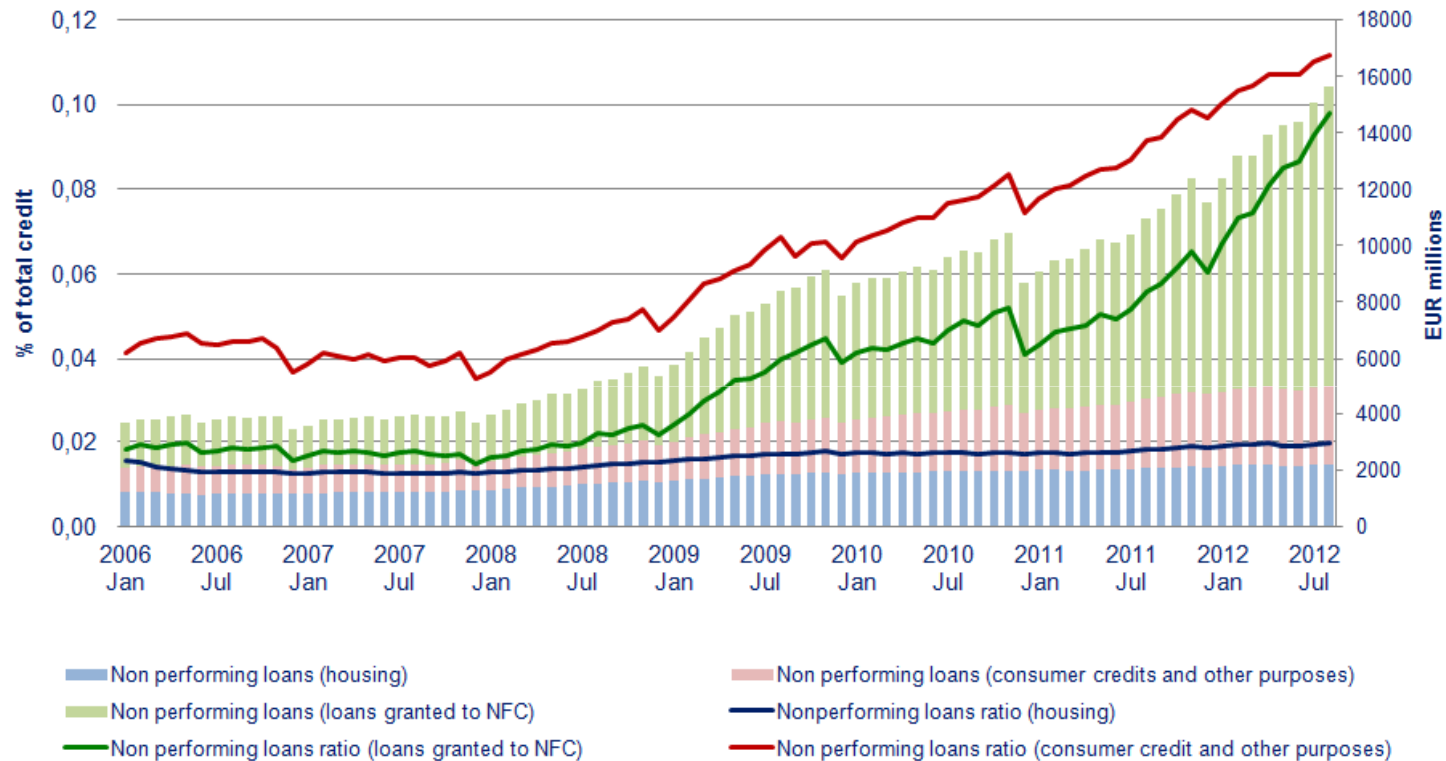


Financial Accounts data:

- Composition of assets and liabilities by type of instrument
- On the asset side, composition changes overtime
- On the liability side mostly loans (2007-2008)



Non-performing loans evolution



Money and banking statistics, CCR:

- Allow focusing on non-performing loans
- Granular data useful for delineating financial policies (Planning Financial Assistance to households)



Indebtedness Ratios

(as a percentage of GDP, non-consolidated figures)

	Dec-08	Dec-09	Dec-10	Dec-11	Mar-12	Jun-12
Total-non-financial sector indebtedness	366,2	391,6	402,2	420,5	422,3	432,2
Financed by:						
General Government	9,8	9,8	12,9	16,7	17,9	19,4
Resident Financial sector	185,1	196,8	205,3	204,4	207,3	208,8
Corporations	65,1	67,9	68,2	68,7	67,1	68,1
Private individuals	24,8	25,6	24,2	23,1	22,8	23,2
External	81,4	91,5	91,6	107,6	107,2	112,7

The recently published chapter k of the Statistical Bulletin (non-financial sector indebtedness) provides an integrated overview of the total financing of the economy by institutional sector



Final remarks

Micro-databases managed by the Statistics Department of the *Banco de Portugal*: **Central Credit Register; Securities Statistics Integrated System; Central Balance Sheet Database; and Balance of Payments data**

- Granular micro-data are tools that allow monitoring the financing needs of the economy (example: highly exploited for the purpose of the EU/IMF Financial Assistance Programme)
- Publishing new and integrated statistics offer a new insight
 - Analysing indebtedness ratios
 - Constructing indicators to support the financial sector
 - Delineating financial assistance programmes for households and corporations



Workshop on Financial Inclusion Indicators, Kuala Lumpur, 5-6 November 2012

Measuring the Evolution of Monetary and Financial Services in Portugal

Obrigado pela vossa atenção

Thank you for your attention

Terima kasih atas perhatian anda

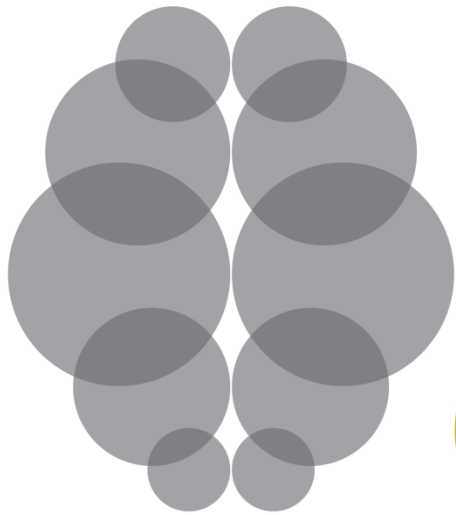


IFC Workshop on Financial Inclusion Indicators
Co-hosted by Bank Negara Malaysia
5 – 6 Nov 2012, Sasana Kijang, Kuala Lumpur

The financial inclusion data working group and the Mexican experience¹

Nora Garcia, Alliance for Financial Inclusion

¹ This presentation 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.



afi Alliance for
Financial Inclusion

Bringing Smart Policies to Life

Ms. Nora García

Workshop on Financial Inclusion Indicators

Kuala Lumpur, Malaysia

November 5, 2012

Part 1

FINANCIAL INCLUSION DATA WORKING GROUP (FIDWG)

Evidence-Based Policymaking

Diagnose
the state of
financial
inclusion

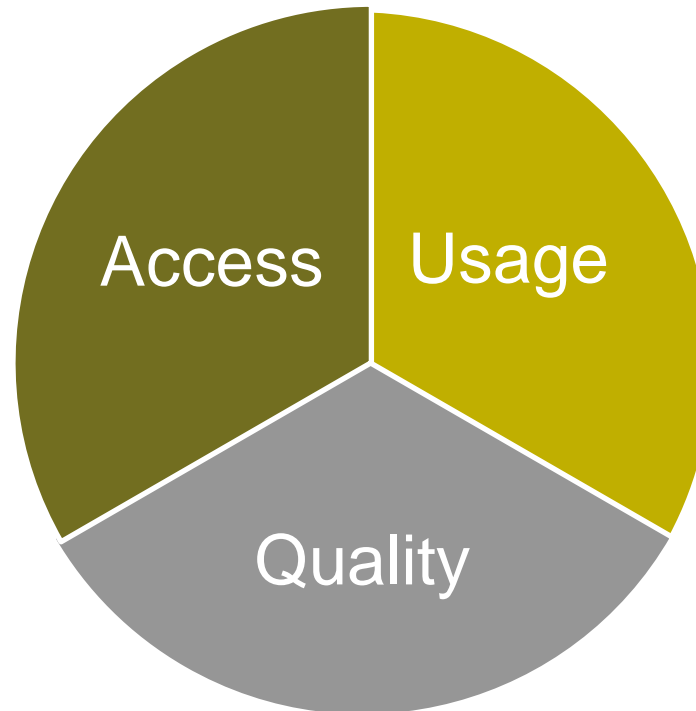
Design
appropriate
policies

Monitor
changes
over time

Evaluate
policy
impact

Ability to use financial services:

- Proximity
- Channels
- Barriers



Actual use of financial services:

- Products
- Patterns
- Behaviors

Appropriateness of financial services:

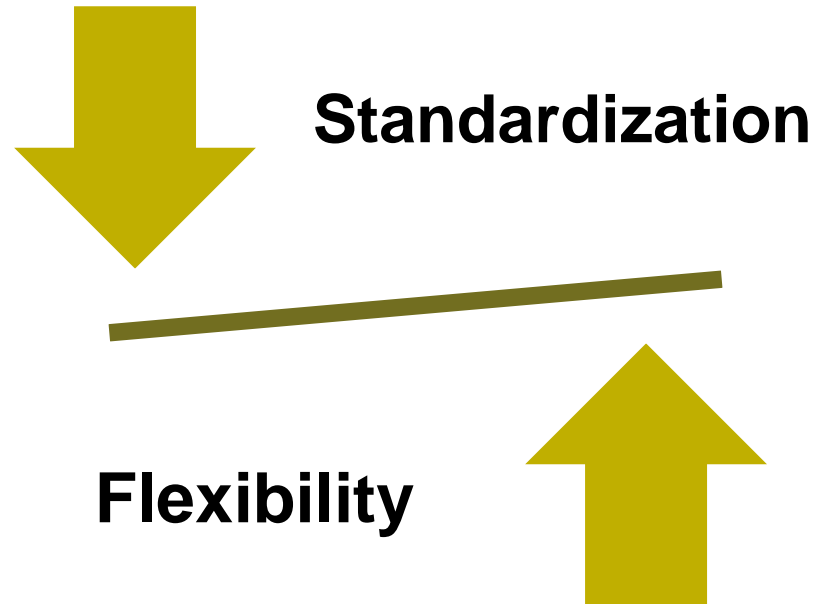
- Convenience
- Security
- Consumer Protection

The AFI FIDWG core set of indicators

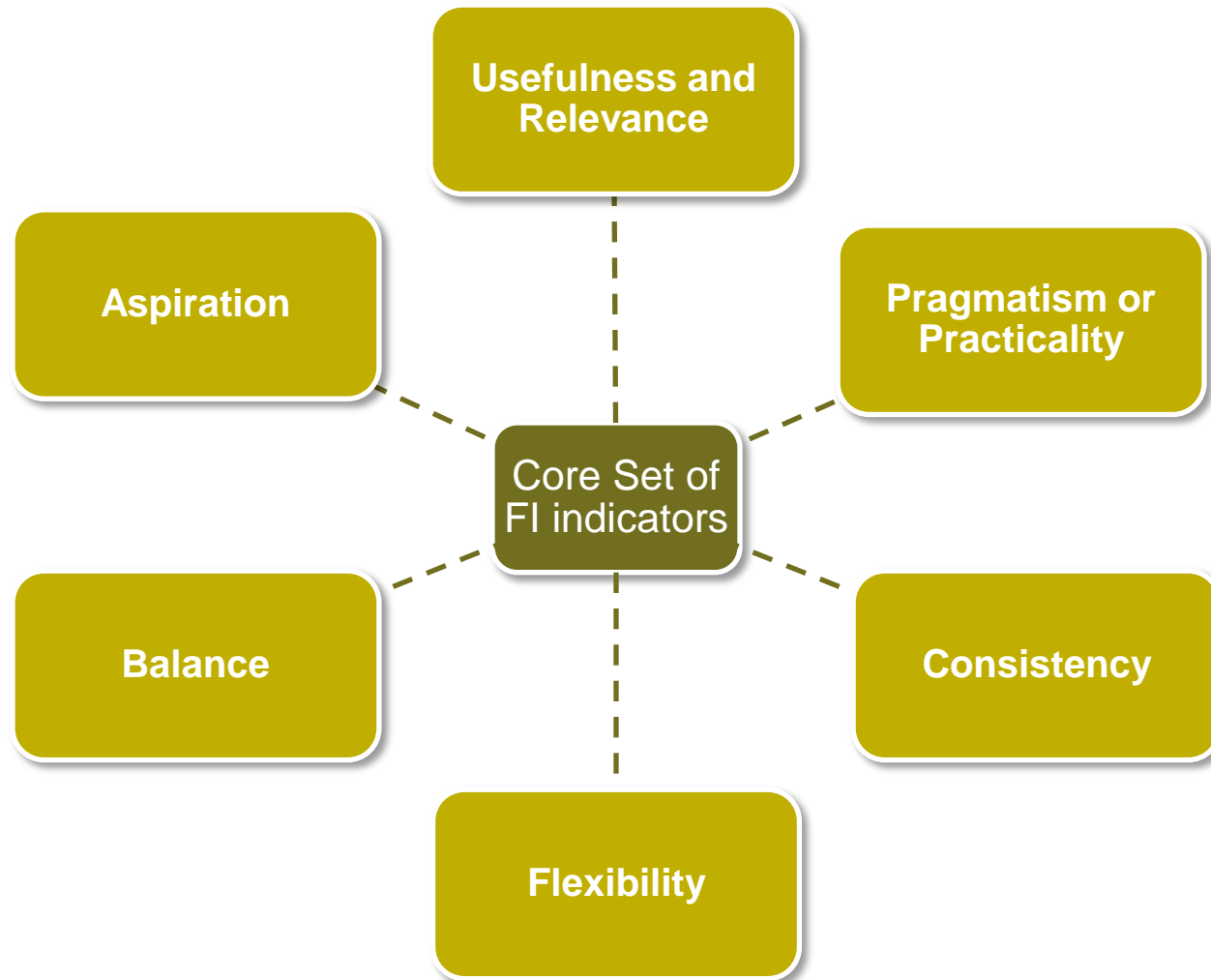
The Core Set of indicators is one initiative developed by the Financial Inclusion Data Working Group as a guidance to conduct data collection and measurement efforts at country-level.

This set is a list of indicators designed by policymakers to be flexible for country-specific needs, but at the same time to allow certain amount of comparison and benchmarking among countries.

Unique in the global data landscape
... equilibrium...



Principles behind the selection of Core Set



Core Set of Financial Inclusion Indicators

Dimension	Core Indicators
Access	<p>1) Number of access points per 10,000 adults</p> <p>2.1) % of administrative units with at least one access point</p> <p>2.2) % of total population living in administrative units with at least one access point</p>
Usage	<p>3.1) % adults with at least one type of regulated deposit account <i>Proxy: Number of deposits accounts per 10.000 adults</i></p> <p>3.2) % adults with at least one type of regulated credit account <i>Proxy: Number of credits accounts per 10.000 adults</i></p>

A. Core indicators

On-line availability
(MixMarket online platform)

B. Second Tier indicators

Barriers to access and usage
Quality indicators
Other indicators

**Work in
progress**

C. Demand-side surveys

Guidance note
Core questions
Focus groups

D. Additional activities

New knowledge material
New peer-reviews



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Geographic distribution / concentration of access points

The indicators and definitions for this component are as follows:

Access points per km sq

[Number of branches](#) per 1,000 km sq

Number of ATMs per 1,000 km sq

Number of POS per 1,000 km sq

Spatial distribution of access points

Map of branch presence by type of institution (commercial bank, development bank, Savings and credit entity)

Map color-coded by number of branches per 10,000 adults (high, medium, low)

Access points per administrative unit

Percentage of 3rd tier administrative units with at least one access point that performs cash-in and cash-in

Number of admin unit with branch presence by type of institution (commercial bank, development bank, cooperatives, MFIs)

Average number of branches per admin unit by type of institution (commercial bank, development bank, cooperative, MFI)

[Number of outlets](#) (branches, kiosks, satellites) per district

Percentage of admin unit with at least one branch by 2nd tier admin unit

Percentage of municipalities with at least one branch representing each type of institution by classification of municipality

Number of municipalities with at least one branch representing each type of institution by classification of municipality

Percentage of municipalities with at least on branch by classification of municipality

Percentage of total [number of branches](#) in the country located in each category of municipality

Country: Brazil

Adult population: 144,823,504

Total number of relevant administrative units: 5565

Access dimension

Total number of branches: 31,541

Total number of agents: 151,623

Total number of ATMs: 174,920

Total other Cash-in & out: 1,990

Number of access points per 10,000 adults at a national level: 18.3

% of administrative units with at least one access point: 100%

% of total population living in administrative units with at least one access point: 100%

Usage dimension

% of adults with at least one type of regulated deposit account: 79%

Number of deposit accounts per 10,000 adults: 12,470

% of adults with at least one type of regulated credit account: 21%

Number of loan accounts per 10,000 adults: 44,686

Sources: AFI-FIDWG Financial Inclusion Survey. Data for 2010/2011

Country: Burundi

Adult population: 3,819,120

Total number of relevant administrative units: 129

Access dimension

Total number of branches: 410

Total number of agents: 0

Total number of ATMs:

Total other Cash-in & out: 0

Number of access points per 10,000 adults at a national level: 1.1

% of administrative units with at least one access point: 93%

% of total population living in administrative units with at least one access point: 95%

Usage dimension

% of adults with at least one type of regulated deposit account:

Number of deposit accounts per 10,000 adults: 1,738

% of adults with at least one type of regulated credit account:

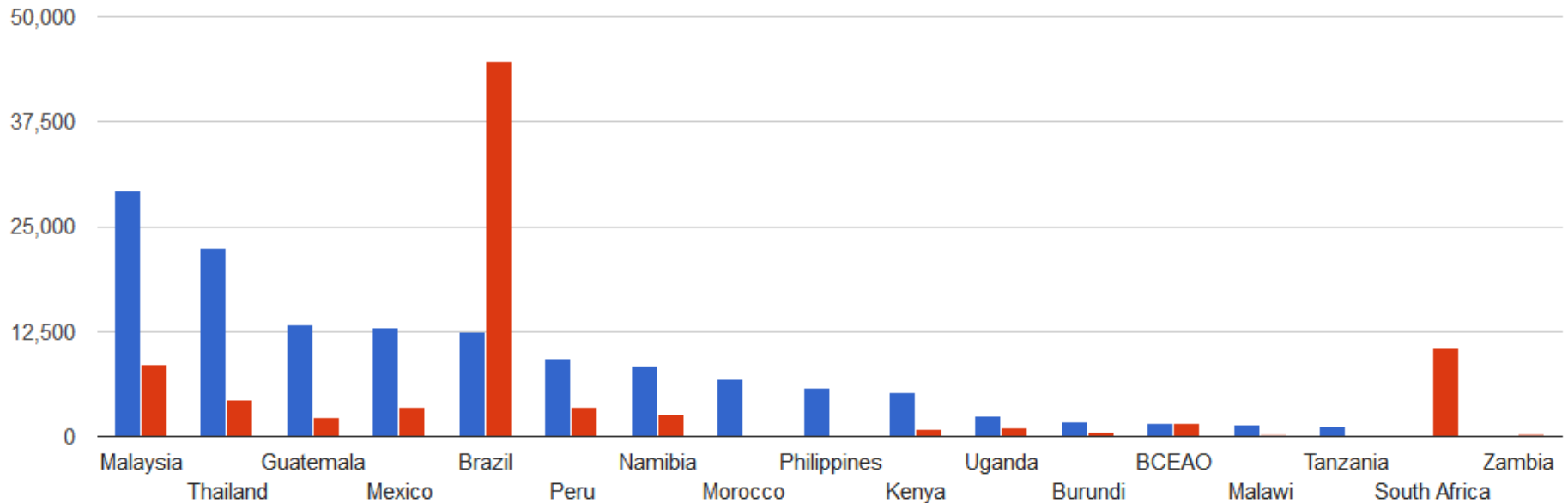
Number of loan accounts per 10,000 adults: 468

Sources: AFI-FIDWG Financial Inclusion Survey. Data for 2011

On-line indicators: comparative charts

3.a Number of deposit accounts per 10,000 adults / 3.b Number of loan accounts per 10,000 adults

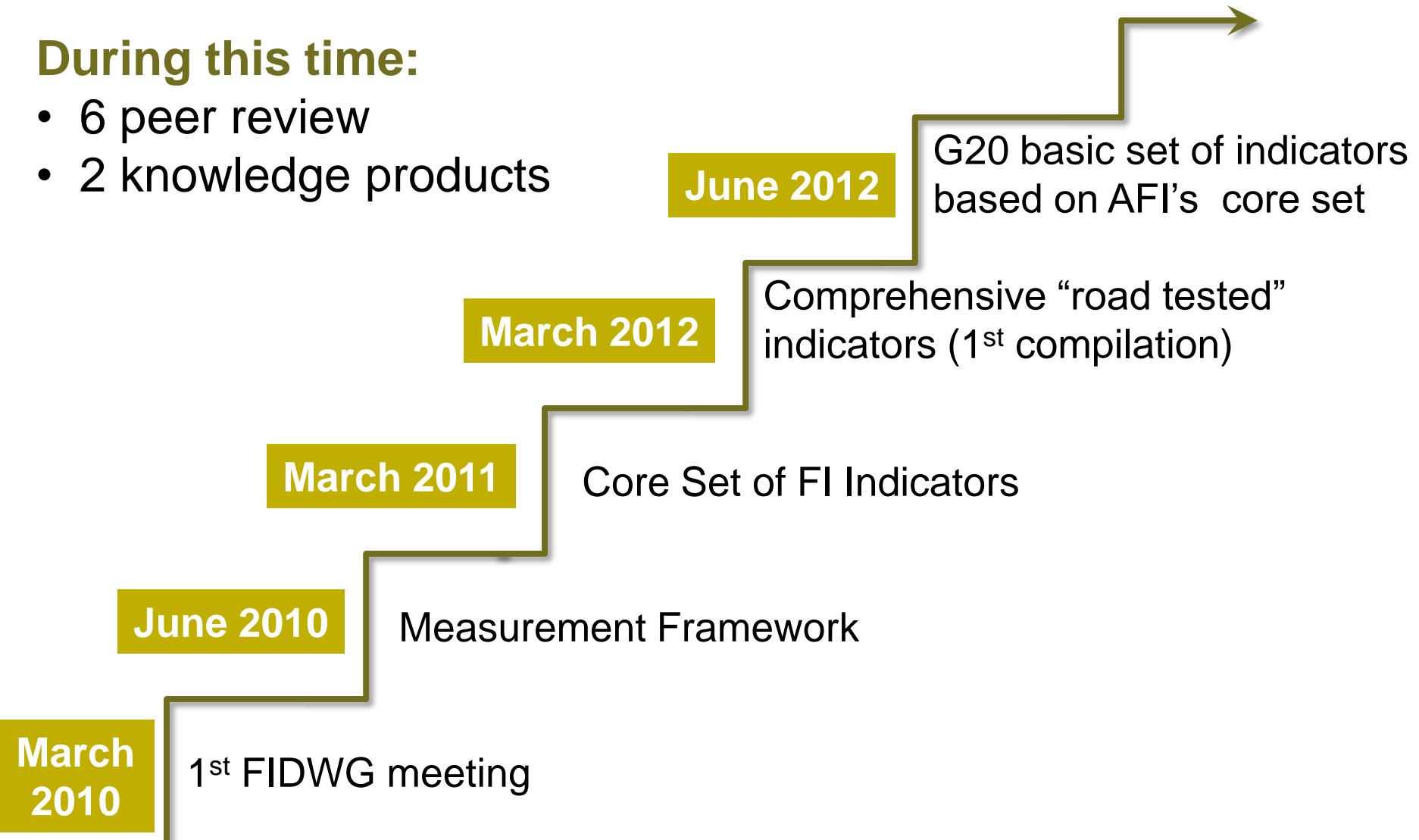
■ Number of deposit accounts per 10,000 adults ■ Number of loan accounts per 10,000 adults



Key accomplishments

During this time:

- 6 peer review
- 2 knowledge products



Lessons learned

- ✓ Focus on policy questions (strategy)
- ✓ Start with available data (harmonization)
- ✓ Consider partnerships (cooperation)

Part 2

THE MEXICAN EXPERIENCE

Strategy for financial inclusion

Definition of Financial Inclusion

The access and usage of a portfolio of financial products and services for the population, under an appropriate regulatory framework that protects the interests of users and promotes its financial capabilities.

Financial Inclusion Curve

Higher number of people included in the financial system

Quality

More efficiency

Usage

Better Products

Access

Increase in financial penetration

Other components



Market Conduct



Consumer Empowerment

Measurement of Financial Inclusion

Dimension	Indicators	Source
Access	<ul style="list-style-type: none"> • Number of branches and banking agents per 10,000 adults • Number of ATMs/POS per 10,000 adults • % of adult population living in a municipality with at least one access point 	<ul style="list-style-type: none"> • CNBV financial inclusion reports • ABM (Bank Association of Mexico) geo-spatial analysis
Usage	<ul style="list-style-type: none"> • Number of deposit accounts/loans per 1,000 adults • Number of depositors/borrowers per 1,000 adults • % of adults with an account at a formal financial institution • % of products that correspond to banks/other financial institutions • % of adults with at least one financial product 	<ul style="list-style-type: none"> • CNBV: financial inclusion reports. • BANXICO (Central Bank). • ENIF 2012. National Survey.
Financial Literacy and Consumer Protection	<ul style="list-style-type: none"> • New financial capabilities data • % of financial institutions with financial literacy programs • % of complaints and claims that are solved 	<ul style="list-style-type: none"> • World Bank/CNBV/Condusef • Commercial banks, Condusef (Commission for the Protection of the Users of Financial Services)

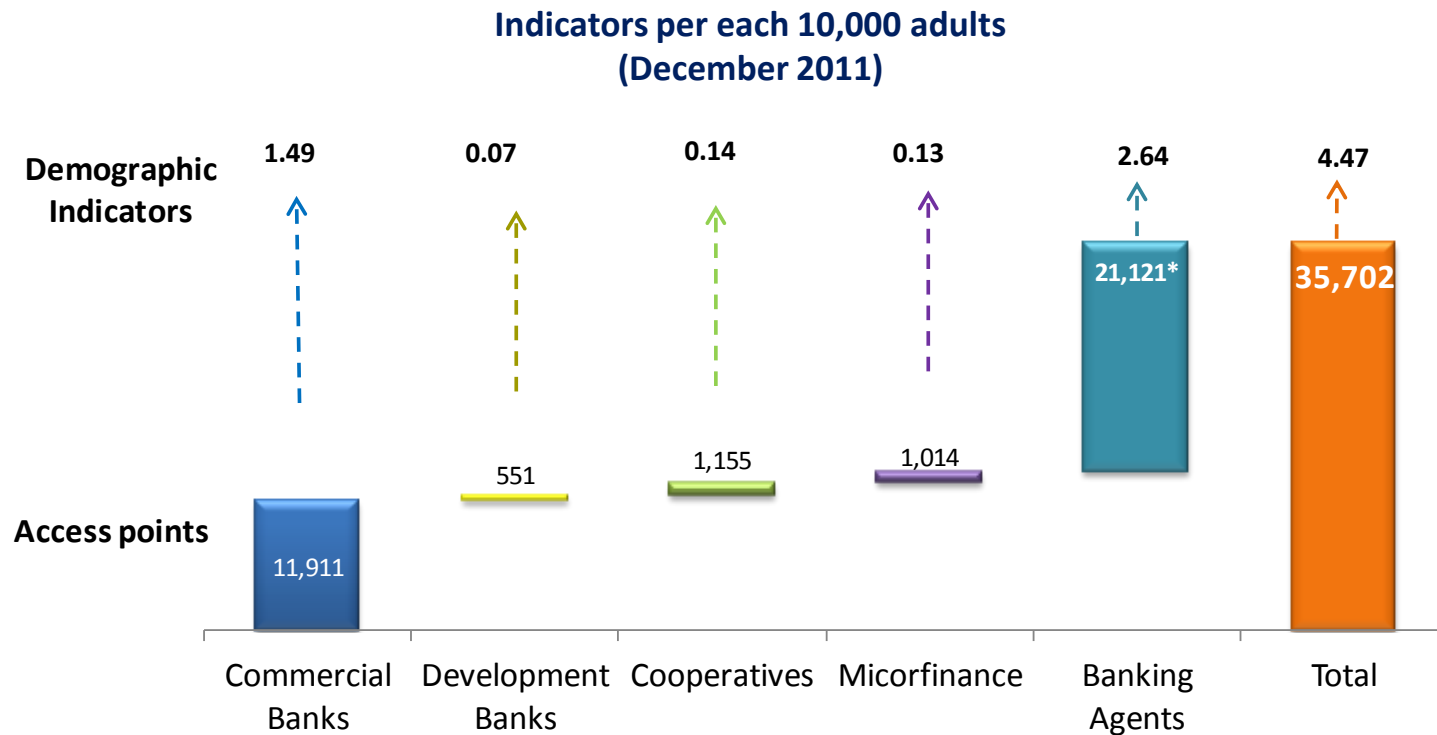
Demand-side survey

- In 2010 – 2012 CNBV developed, in collaboration with the Ministry of Finance and other stake holders, the conceptual framework and design of the first National Financial Inclusion Survey (ENIF 2012).
- The National Institute of Statistics (INEGI) participated providing technical assistance (sampling design & selection) and conducting the survey at the field in May 2012.
- The results will be available by year-end 2012.

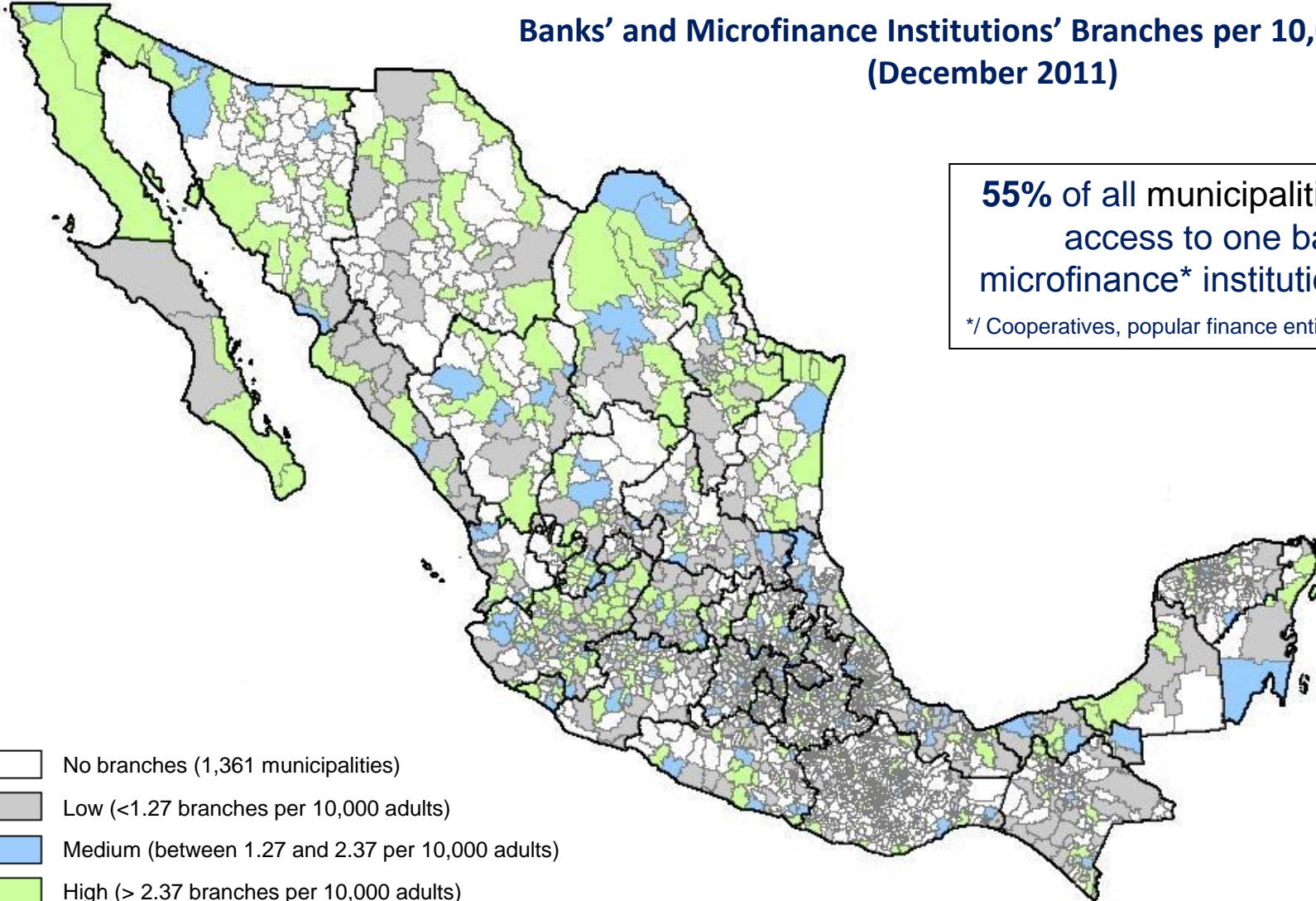


Actual situation

- Up to December 2011, there are 35,702 access points, of which 11,911 are bank branches and 21,071 banking agents. Altogether, there are 4.47 access points per each 10,000 adults.



Banks' and Microfinance Institutions' Branches per 10,000 adults (December 2011)



- No branches (1,361 municipalities)
- Low (<1.27 branches per 10,000 adults)
- Medium (between 1.27 and 2.37 per 10,000 adults)
- High (> 2.37 branches per 10,000 adults)

- ✓ Financial inclusion measurement framework in Mexico was designed considering FIDWG's discussions and conclusions
- ✓ The indicators were built upon already available data and further information was gathered to complete the or enhance them
- ✓ Publication of results and establishment of a communication strategy was considered a key issue
- ✓ Cooperation with other Mexican financial authorities was crucial in some initiatives (such as the demand-side survey)

Thank you!



IFC Workshop on Financial Inclusion Indicators
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5 – 6 Nov 2012, Sasana Kijang, Kuala Lumpur

The situation of credit to agriculture & SME¹

Mao Qizheng, People's Bank of China

¹ This presentation 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.



The situation of credit to Agriculture & SME

Agenda

- The necessity of Monitoring

- Credit to agricultural sector

namely three-A: Agriculture, rural area, peasantry

- Credit to SME

The necessity

- Agriculture is the basis of one nation's economy
- Peasants contribute a large percentage (nearly 60%)
- SME play an important role to solve the unemployment and overcome poverty
- Financial availability emerge as an critic topic for sustainable long term growth

Credit to Three-A

- The monitoring framework

- The situation

as of the end of Jun, 2012

Monitoring framework of Credit to Three-A

- Set up in 2007, revised along the time
- Mainly quarterly, some indicators monthly
- Institutional coverage: DTs
- Both in national and foreign currency

Monitoring framework of Credit to Three-A (cont.)

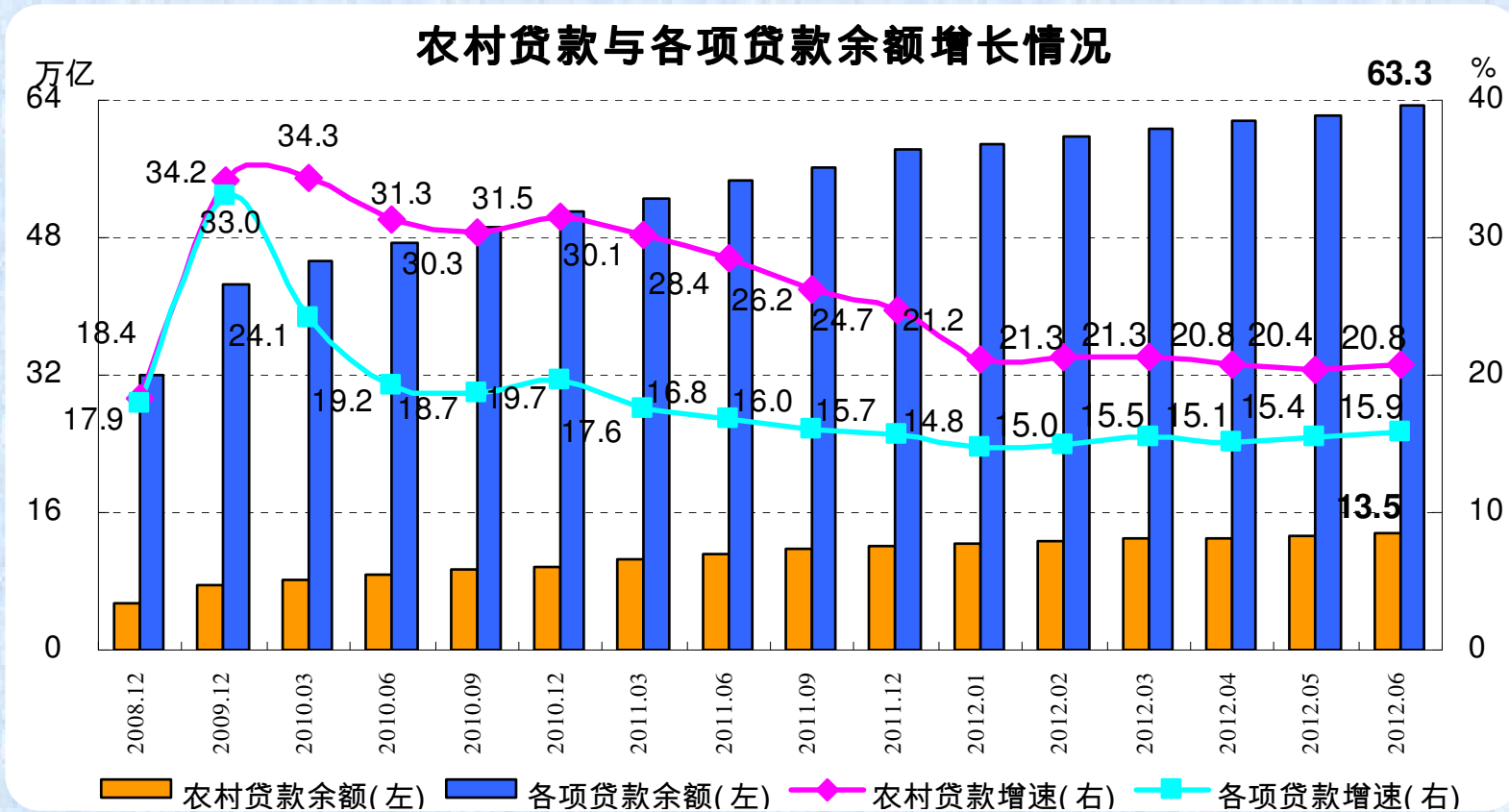
Indicators reflect different aspects

- regional classification
Rural area and municipal institution related to three-A
- borrower classification
peasants, corporations, organizations....
- usage classification
farming, forestry, fishery, infrastructure, sci & tech support, product circulation, capital goods...
- Credit quality classification
5 classes according to the definition of CBRC
Normal, interested, substandard, doubtful, loss

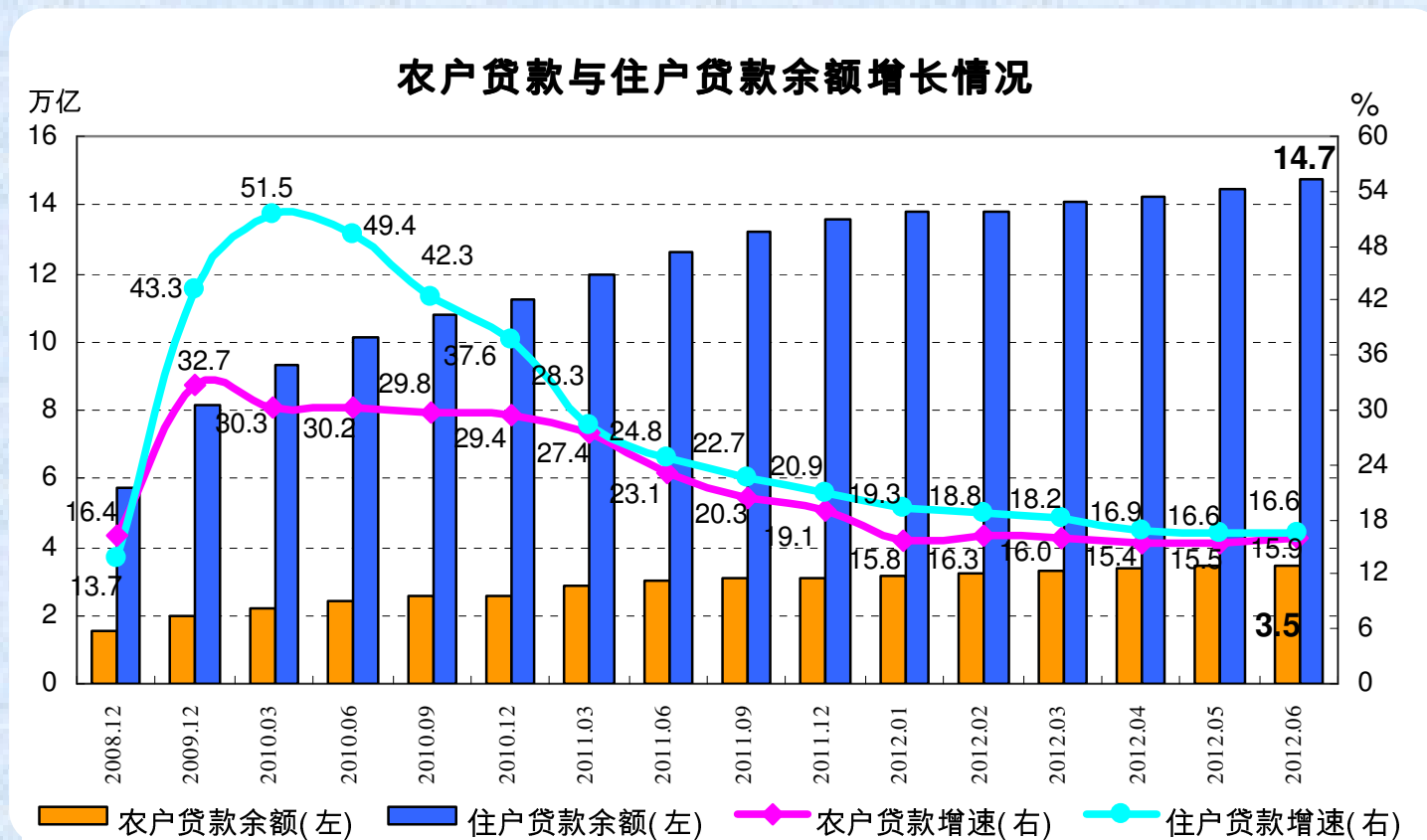
Monitoring framework of Credit to Three-A (cont.)

- Difficulties mainly lie in hard to define what is “three-A related” (brewery?)
- Planning improvement
 - Monitor the flow of money in rural area
 - Set up survey on financial service requirement related to three-A

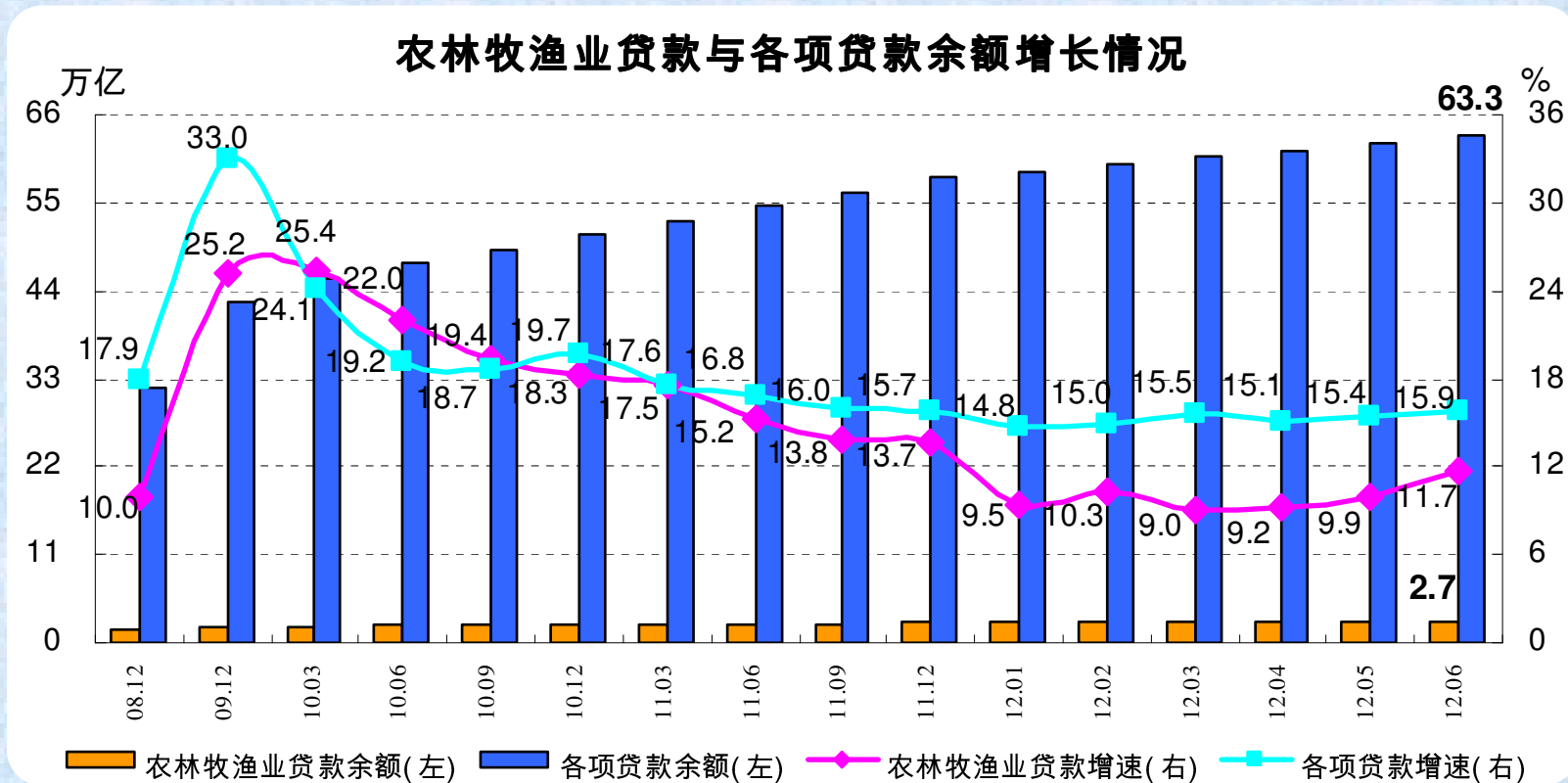
Situation of June 2012



Situation of June 2012



Situation of June 2012



Credit to SME

- The monitoring framework

- The situation

as of the end of Jun, 2012

Monitoring framework of Credit to SME

- Set up in 2009, revised along the time
- Monthly report
- Institutional coverage: DTs
- Both in national and foreign currency

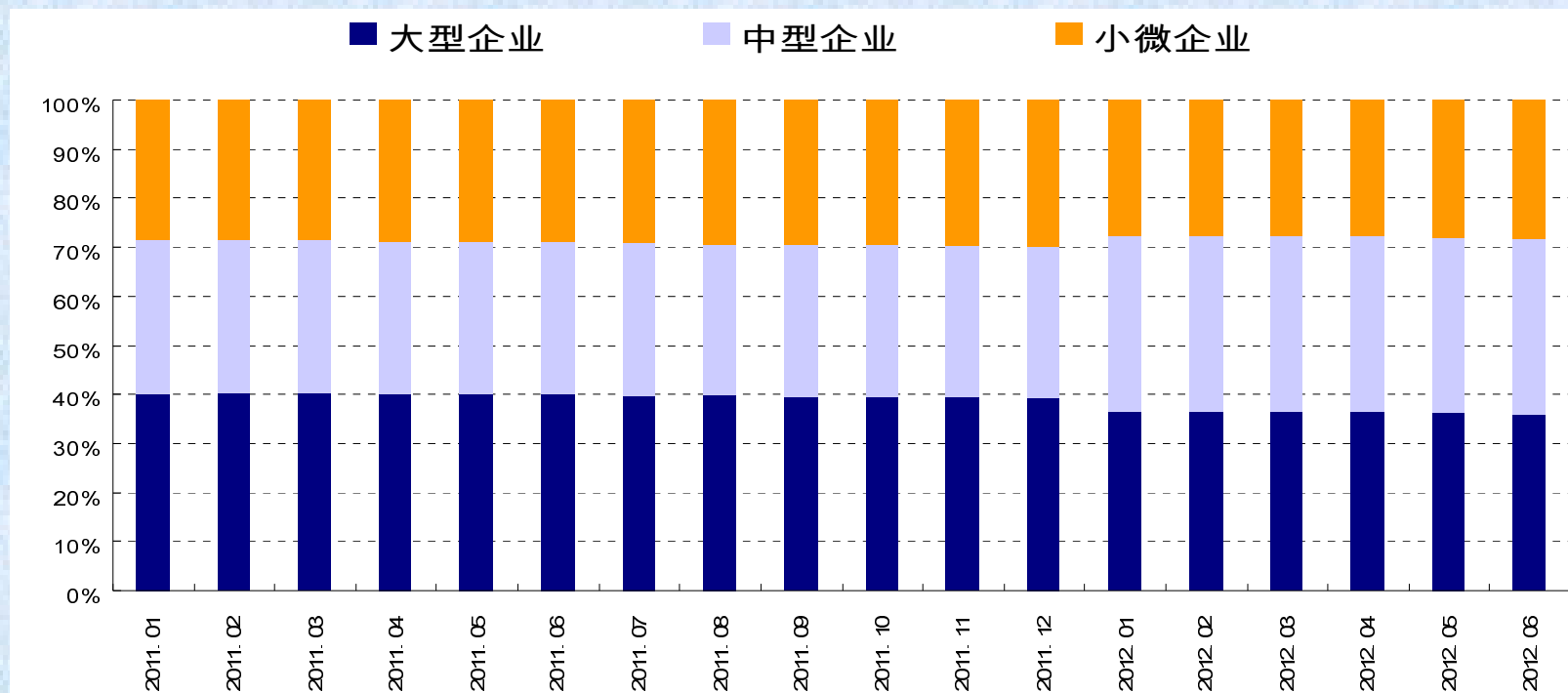
Monitoring framework of Credit to SME (cont.)

- Adopt national standards
 - Classification of corporation size
 - Classification of industries
- When national standards change, the framework revised

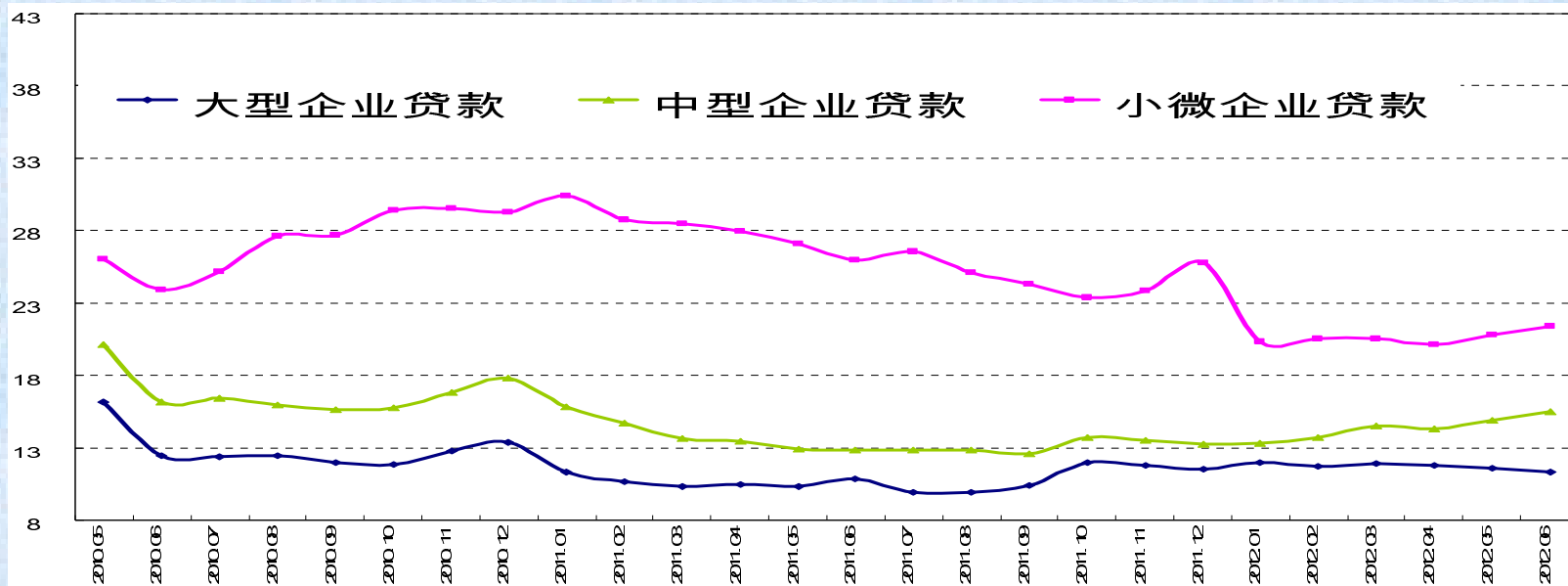
Monitoring framework of Credit to SME (cont.)

- ☞ Credit classified by corporation size
 - big, medium, small, micro
- ☞ Credit classified by quality
 - 5 classes according to the definition of CBRC
 - Normal, interested, substandard, doubtful, loss
- ☞ Credit classified by industries
 - 20 industries according to national standard
- ☞ Credit classified by ownership
 - state-owned, private, foreign controlled...

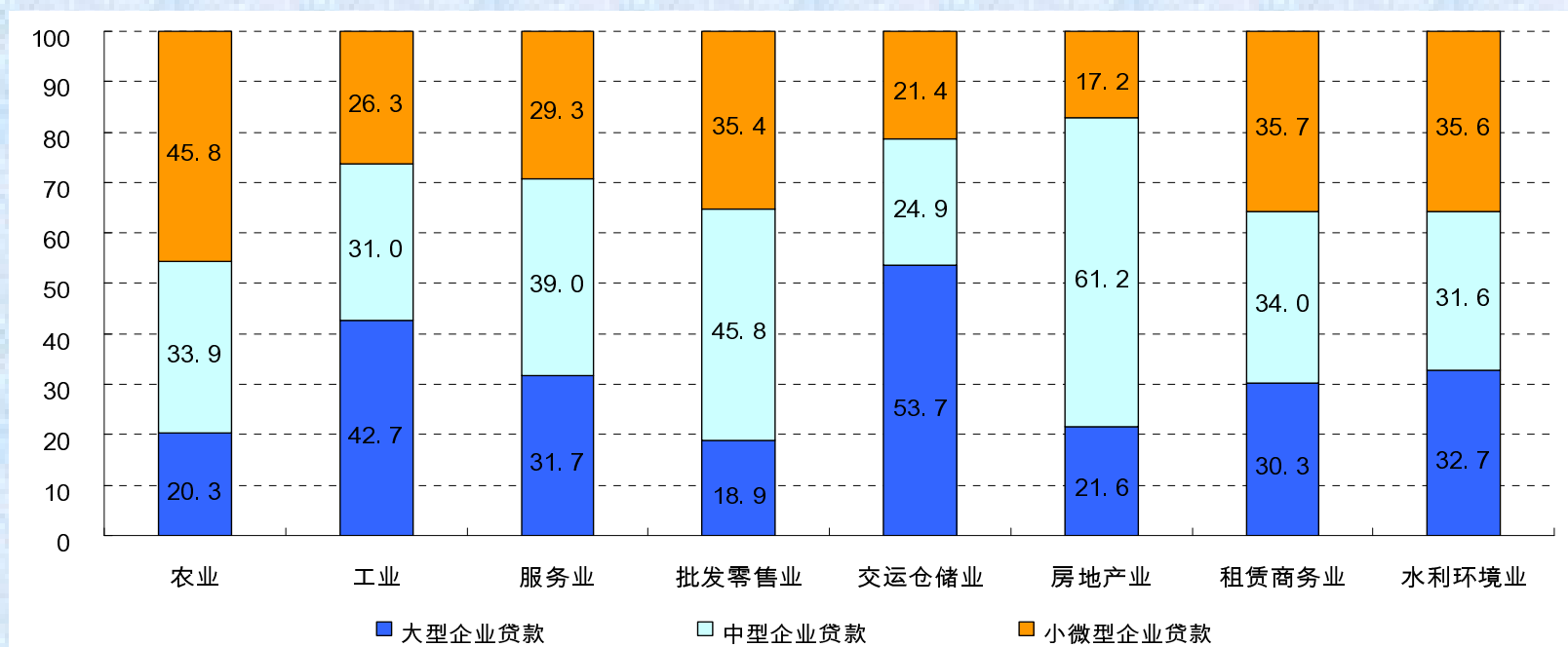
Situation of June 2012



Situation of June 2012



Situation of June 2012





Thanks



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 and its measurement in Brazil¹

Central Bank of Brazil

¹ This presentation 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 and its measurement in Brazil

Highlights

- Macroeconomic stability contributed directly to FI, allowing the government to advance on the social development agenda
- The government has promoted FI in many ways: improving distribution channels, adopting targeted social programs, increasing transparency, and adapting regulation of financial services to low income customers
- FI has become a strategic objective for BCB
- We are now reaping the benefits of these policies:
 - All 5,565 municipalities are financially served
 - Individuals with active relationship with FIs grew 31% to 121 million over the last five years

Synergies Between Financial Inclusion and Social Programs

Financial inclusion initiatives and social programs are fully integrated policies

- Poverty Reduction – innovative distribution channels enable cash transfer programs to reach remote communities such as “Brasil sem Miséria” and “Bolsa Família”
- Social Finance Programs – innovative distribution channels enable access to subsidized credit programs such as:
 - Low income farmers program (Pronaf)
 - Microcredit programs (PNMPO, “Crescer”)
 - Social housing loan program (“Minha Casa Minha Vida”)

Complementary Distribution Channels

Financial System in Brazil is highly spread out. Three alternative channels were fostered by BCB to complement the traditional ones:

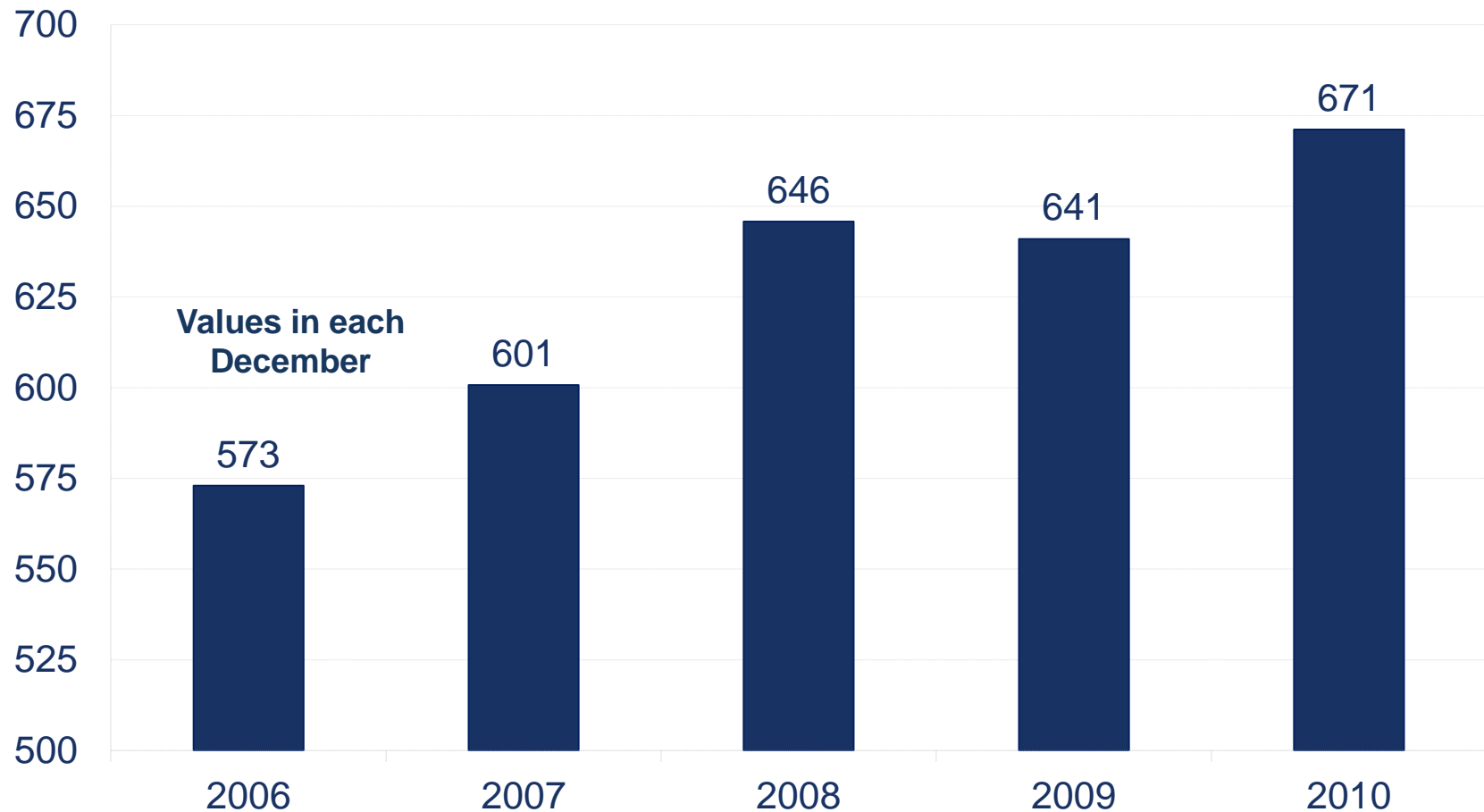
- Correspondents - Non financial firms hired by FIs to provide services in remote regions and more convenient access in metropolitan areas
- Credit Cooperatives - Relevant for specific activities and social sectors
- Bank Services Outposts - Bank satellite with smaller staff and infrastructure for unassisted municipalities

Tools and Initiatives

- **Transparency** – regulation directed at enhanced transparency in prices and services, standardized and simpler contracts to support clients' decision-making
- **Switching costs reduction** – regulation creating automatic inter-bank procedures to transfer accounts, loan balances, and personal data
- **Simplified accounts** – targeted at low income clients, they are exempt of fees, require simpler procedures and limit balances
- **Payroll-guaranteed loans** – legal framework that ensures repayment favoring access to credit for workers and pensioners, with adequate safeguards
- **Mandatory FI staff certification**, including correspondents

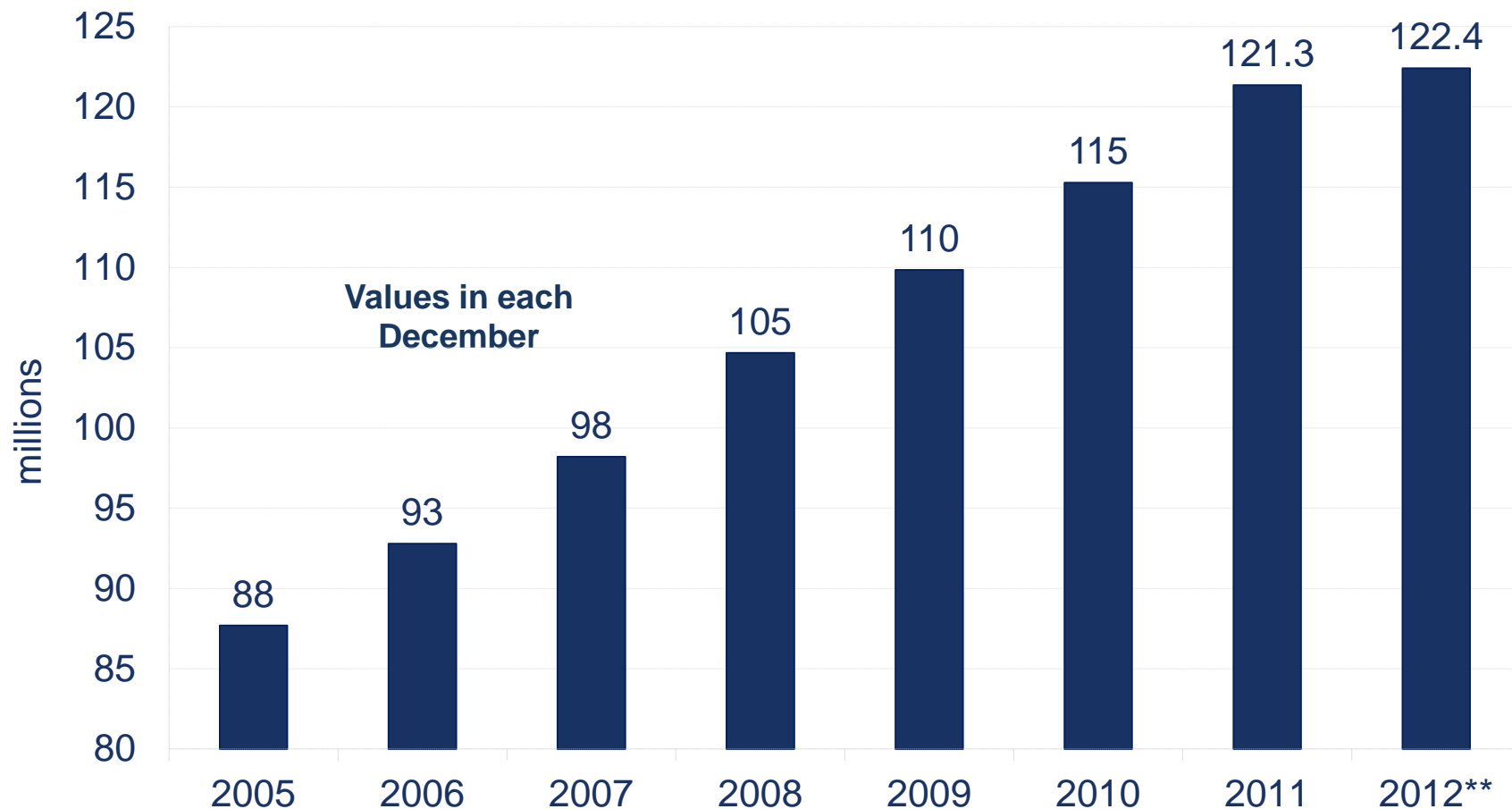
Savings accounts penetration has grown

Clients with savings accounts per 1,000 adults



New clients are active users of financial services

Individuals with active relationship with FIs*

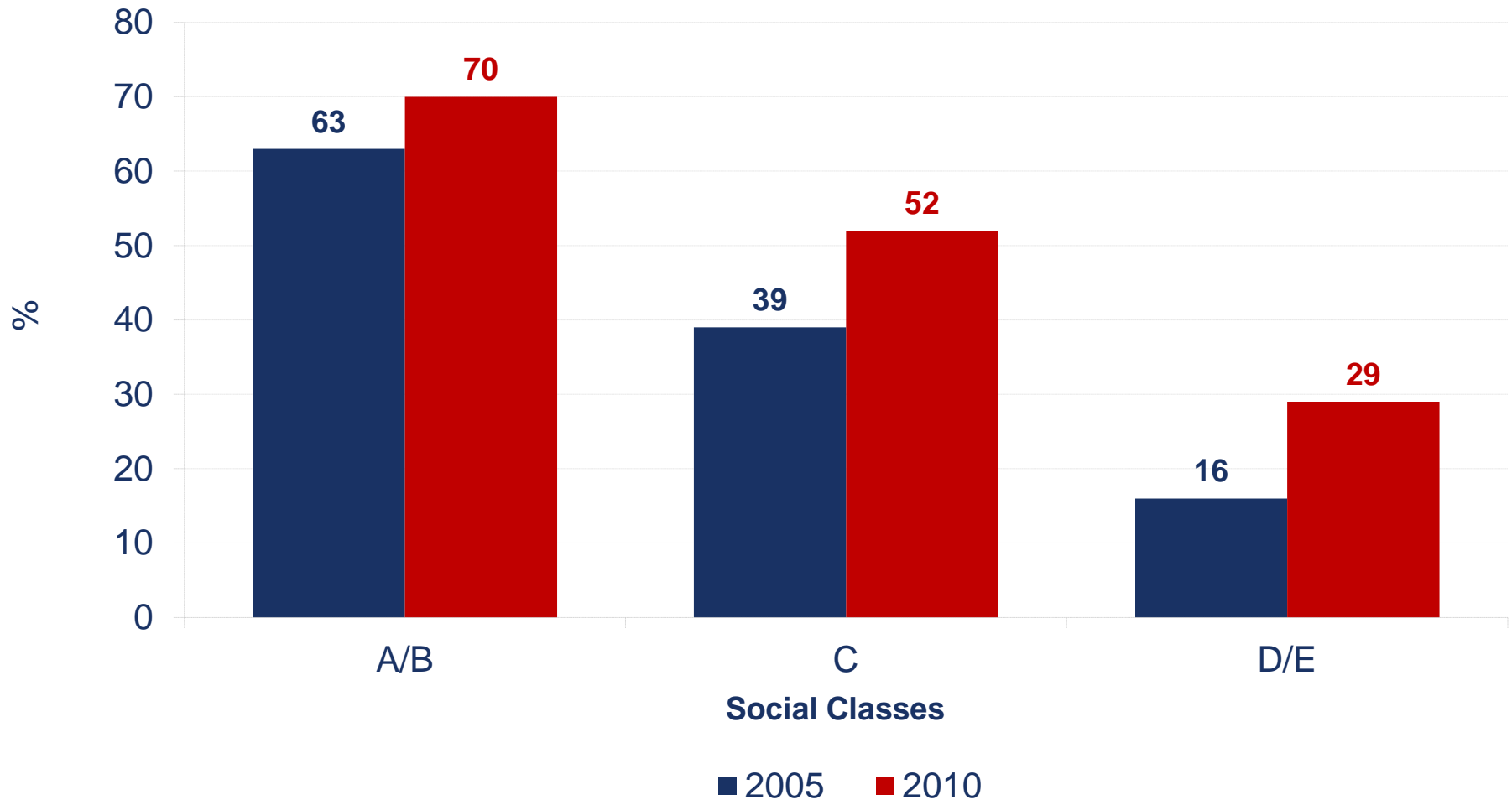


* BCB General Registry of the National Financial System (CCS) – Identifies FIs and their clients for demand deposits, savings deposits, fixed-term deposits and other assets and values

** Feb 12

Access grew most in low income classes (1)

Individuals with demand deposits account



Access grew most in low income classes (2)

Individuals with credit card



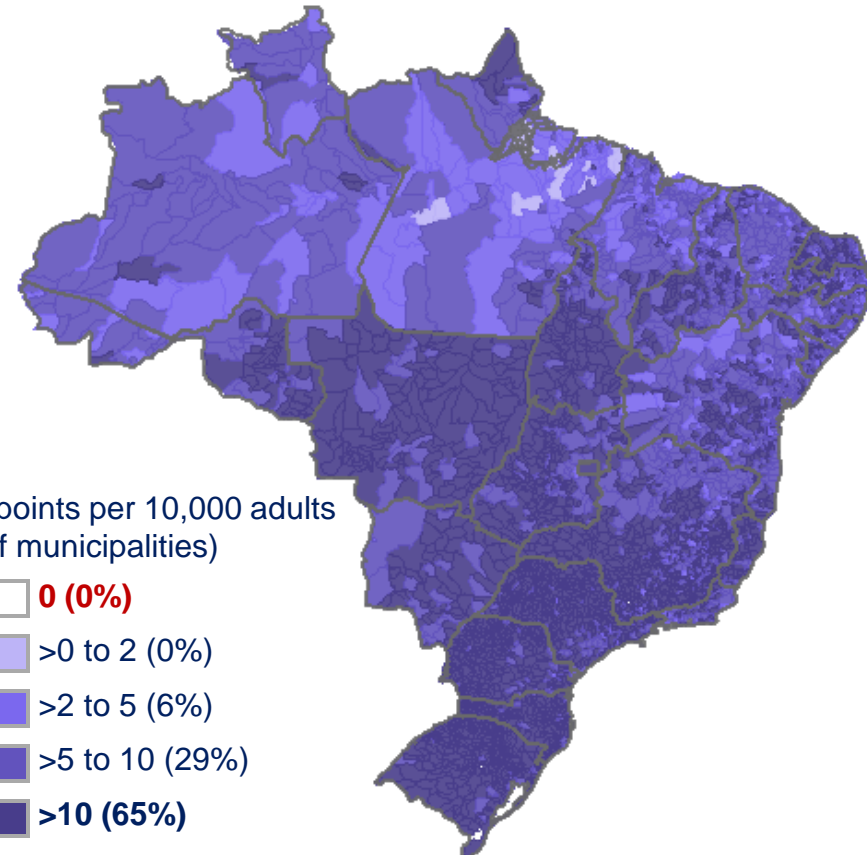
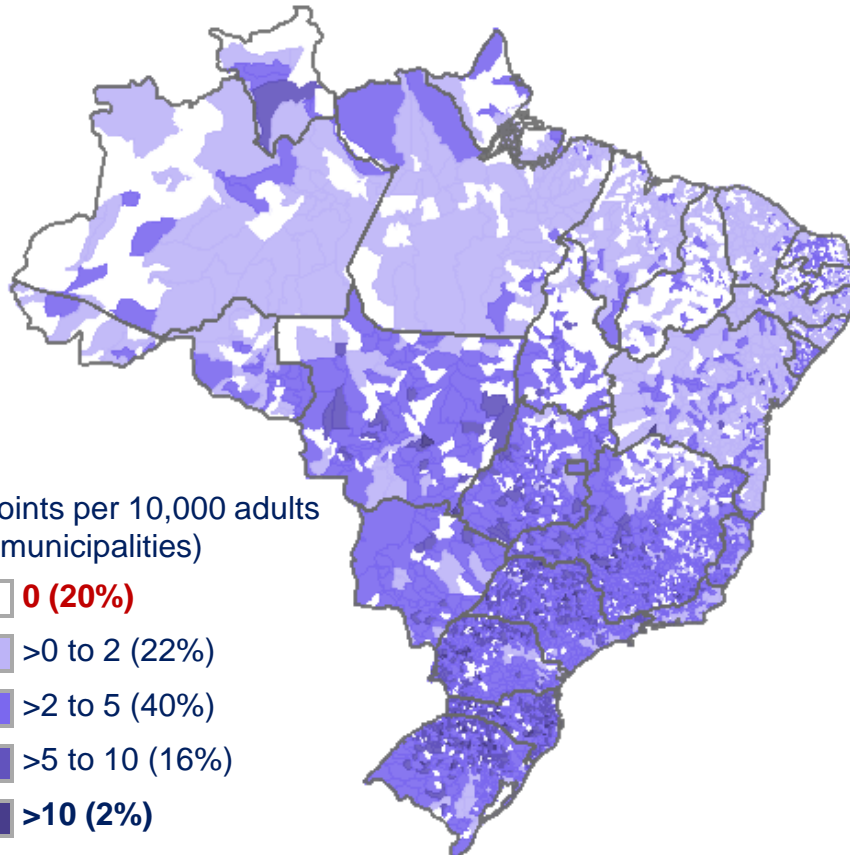
Geographic coverage increased

82% of municipalities had less than 5 points per 10,000 adults in 2000.

In 2010, 94% were above this level.

2000

2010

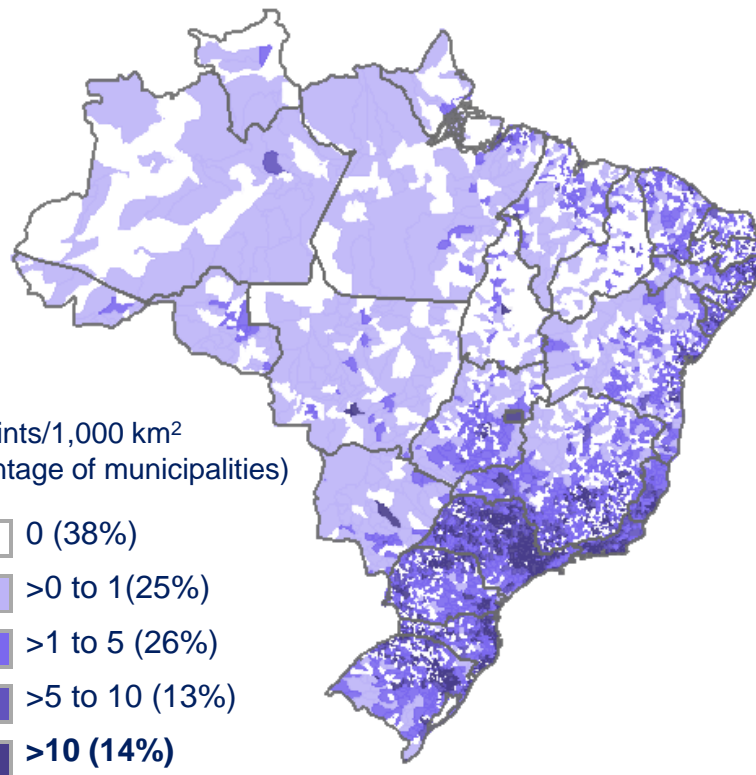


Bank branches, bank advanced outposts (PAA), credit cooperatives (headquarters and outposts) and correspondents

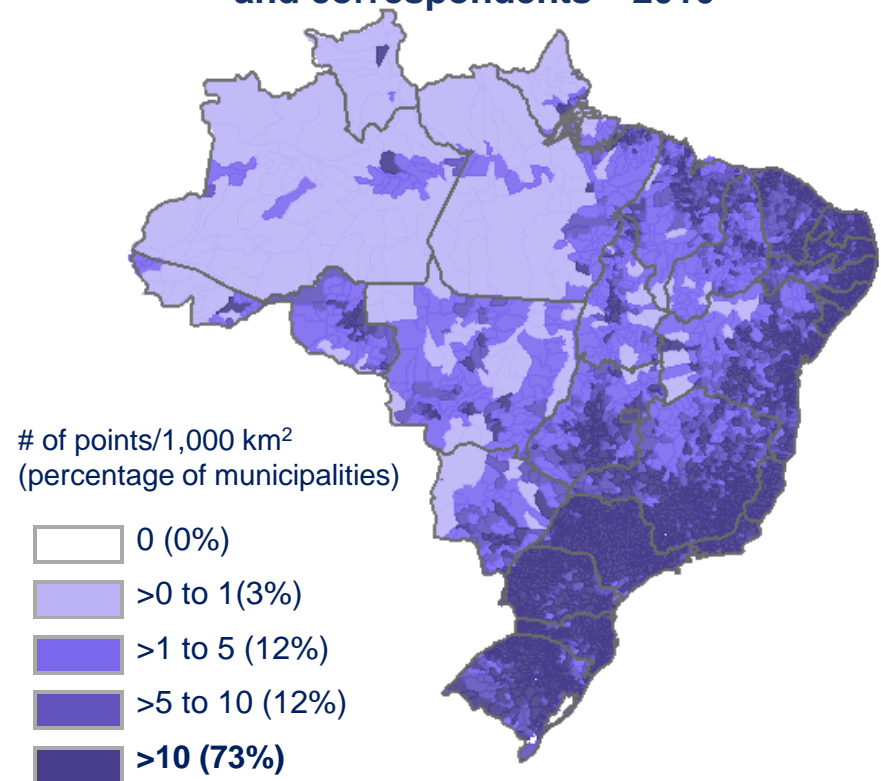
Complementary channels are important

All municipalities have at least one bank branch, outpost or correspondent.
Correspondents contribute to network density.

Bank branches – 2010

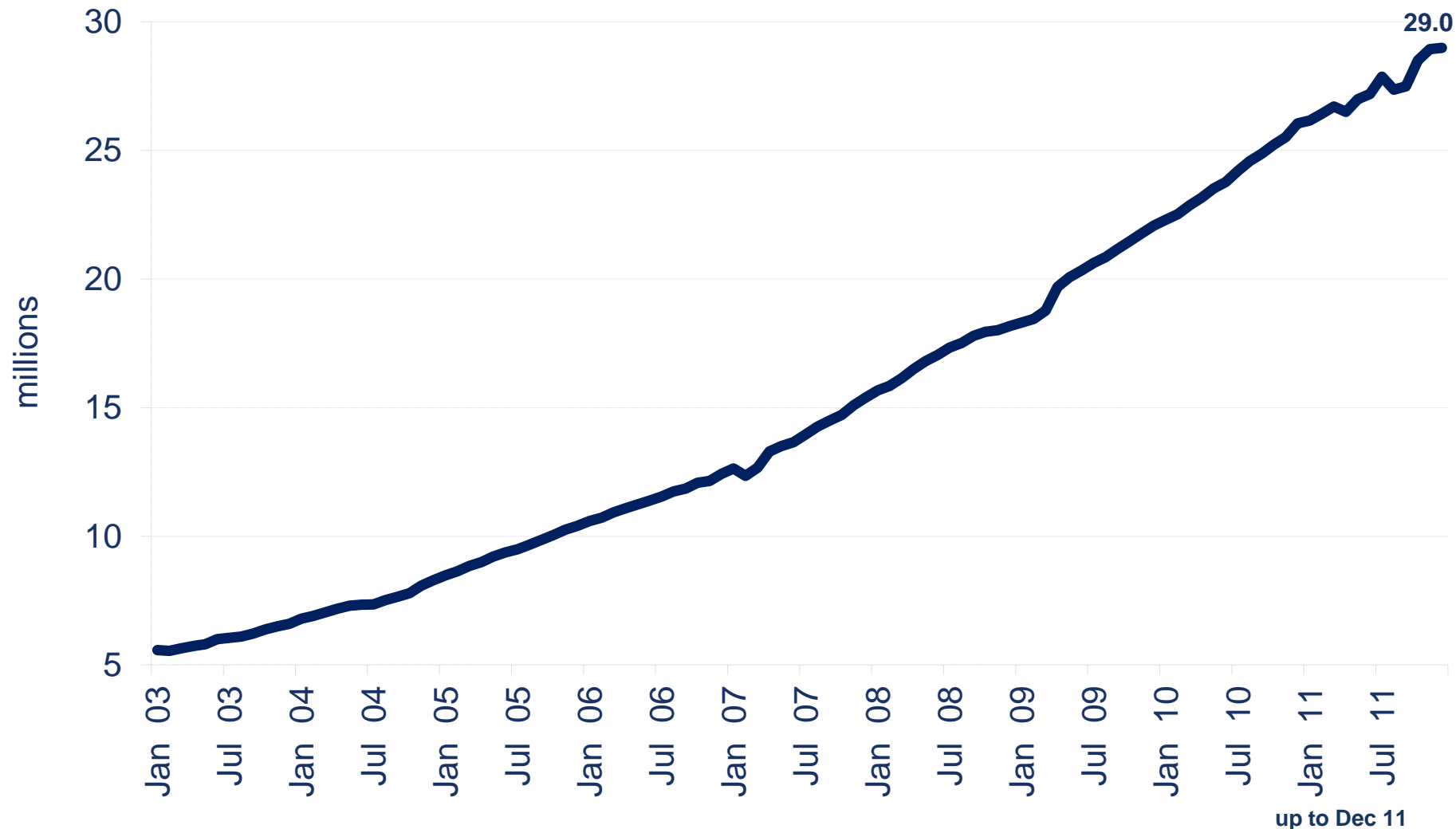


Bank branches, outposts, credit cooperatives and correspondents – 2010



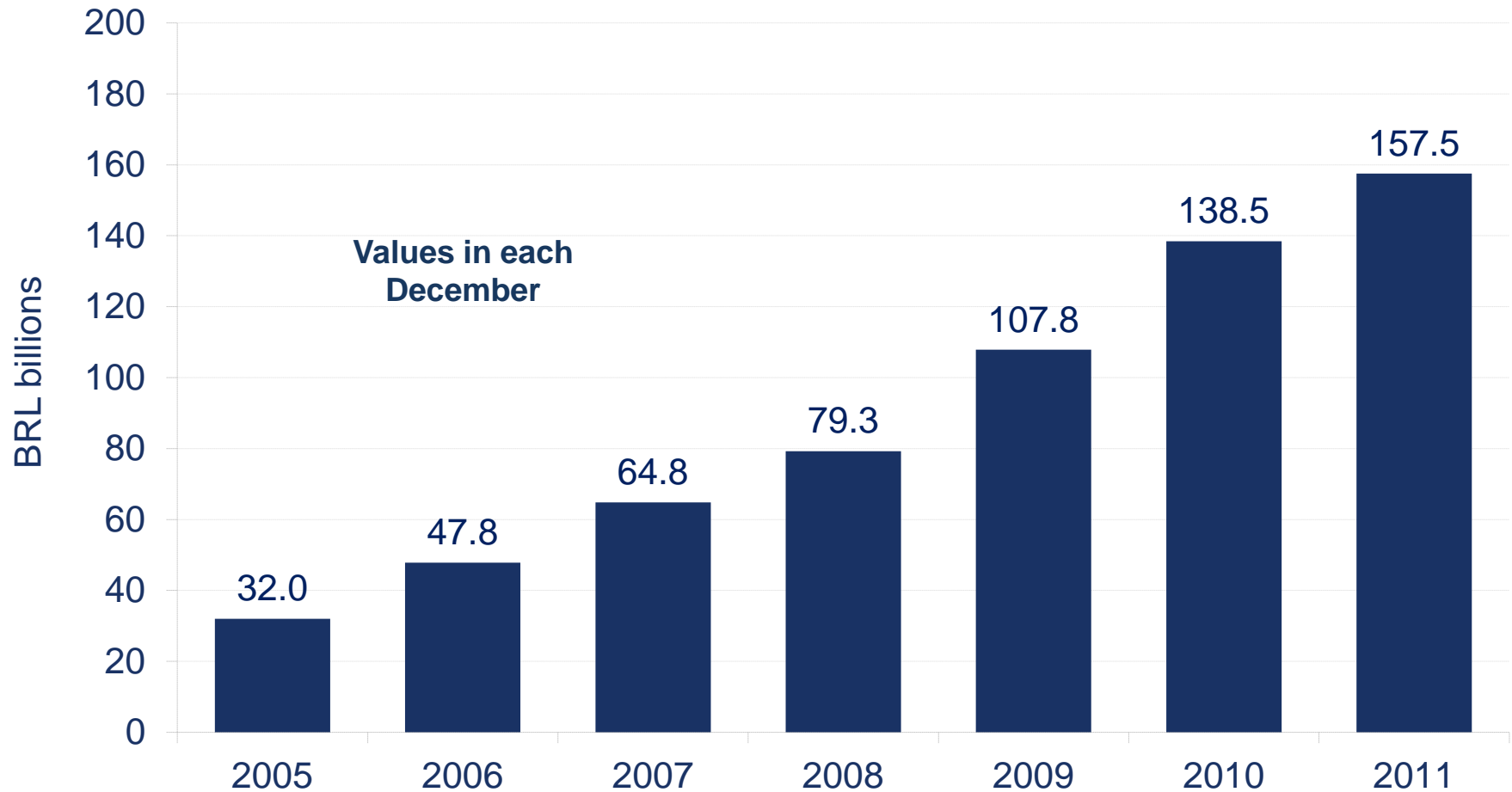
Broader access to credit (1)

Clients with loan balances over BRL 5,000



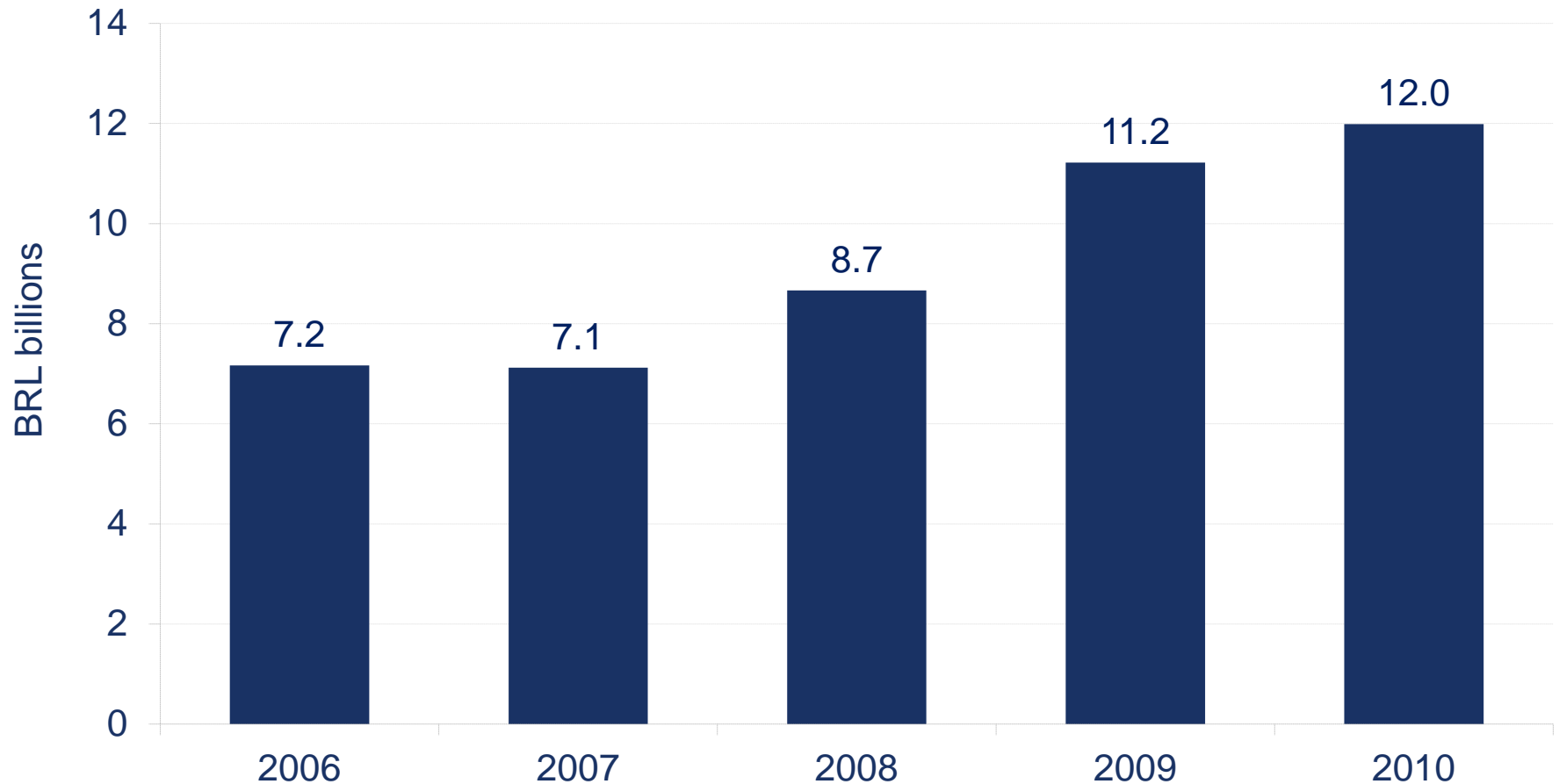
Broader access to credit (2)

Payroll-guaranteed loans



USD = 1.709 BRL (Feb 12)

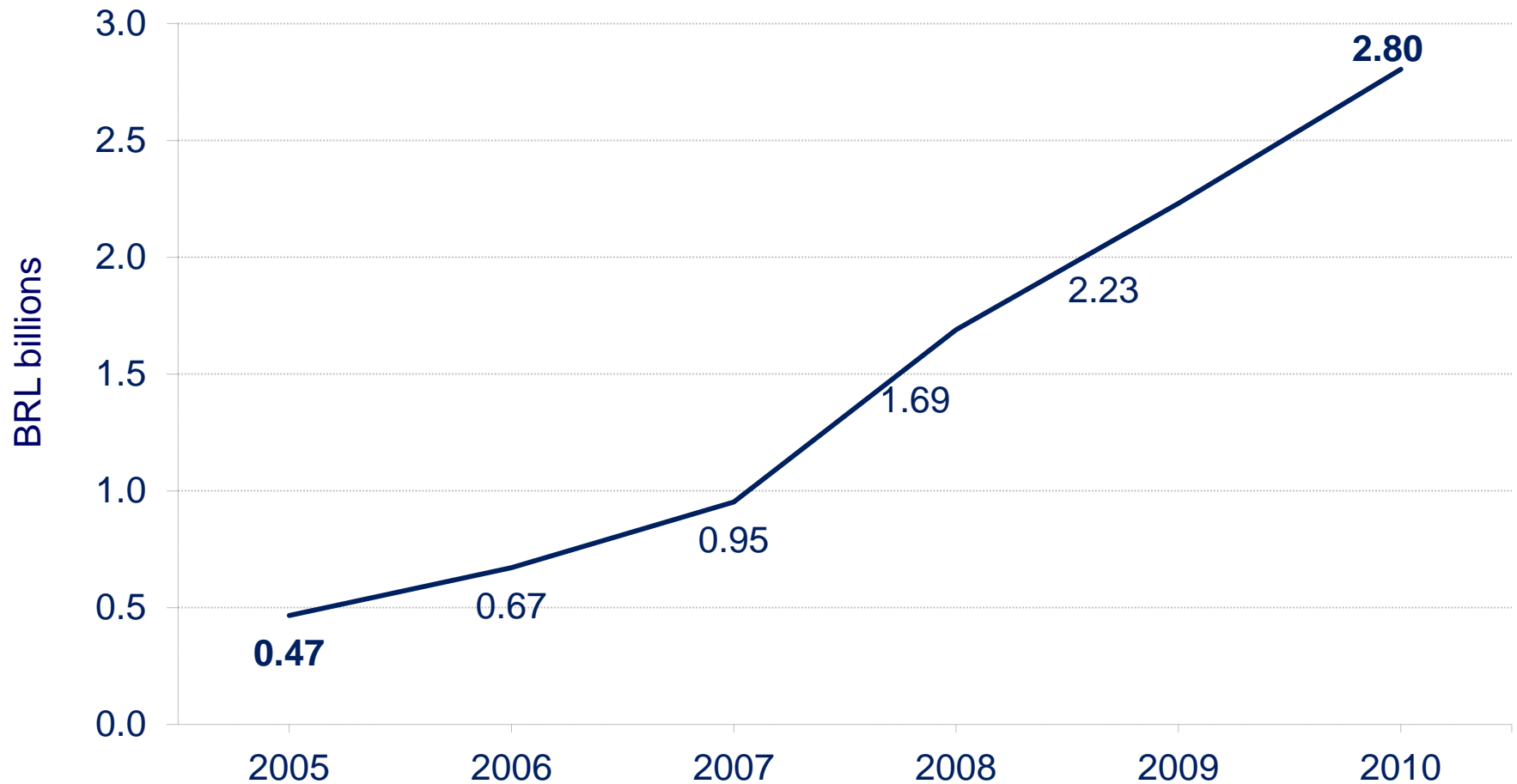
Low Income Farmers Finance Program*



* Pronaf

USD = 1.709 BRL (Feb 12)

Microcredit Program*



* PNMPO

USD = 1.709 BRL (Feb 12)

Financial Inclusion Indicator

- **Financial Inclusion is multidimensional**
- The FII developed by BCB aggregates different dimensions
- It takes as reference the inclusion index proposed by Sarma & Pais (2010), which is based on the distance of each variable from the benchmark (the benchmark is the maximum score in all the dimensions considered)
- Sarma & Pais uses 3 dimensions (bank penetration, availability and use)

Financial Inclusion Indicator

- The FII uses 18 indices, aggregated in 3 dimensions:
 - 7 indices for geographical availability: the ratio between bank branches, credit cooperatives, 4 types of bank service outposts, and correspondents, to 1,000 km²
 - 7 indices for demographic availability: the ratio between bank branches, credit cooperatives, 4 types of bank service outposts, and correspondents, to 10,000 adults inhabitants;
 - 4 indices for use: credit to GDP ratio; credit to 1,000 adults ratio; deposits to GDP ratio; deposits to 1,000 adults ratio
- The indices for all dimensions were calculated for all states in Brazil and aggregated for major geographic regions

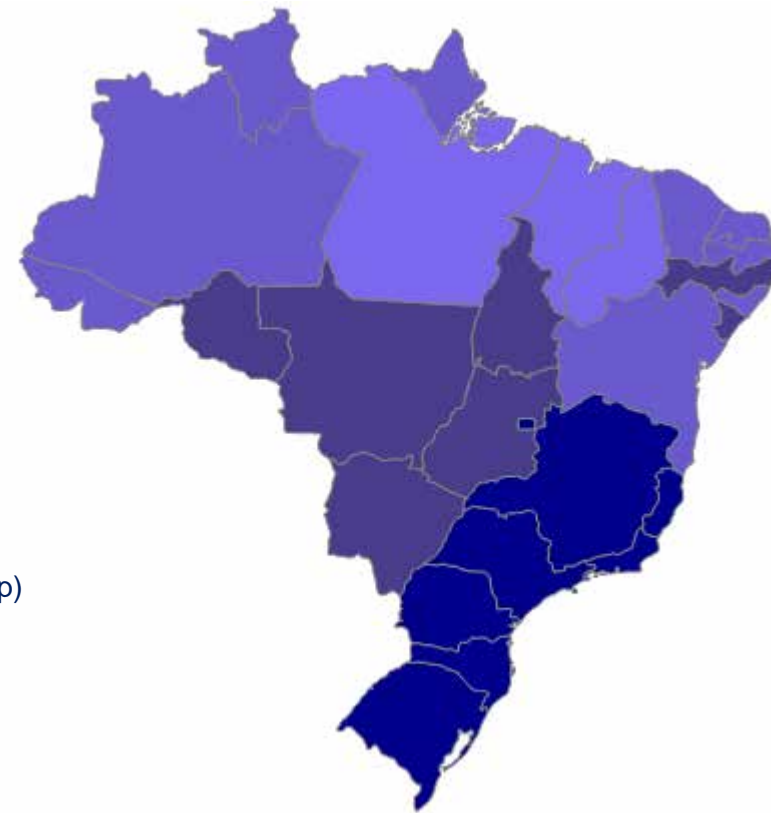
Financial Inclusion shows relevant evolution

Financial Inclusion Indicator*

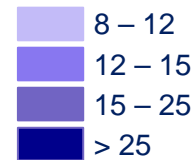
2000



2010



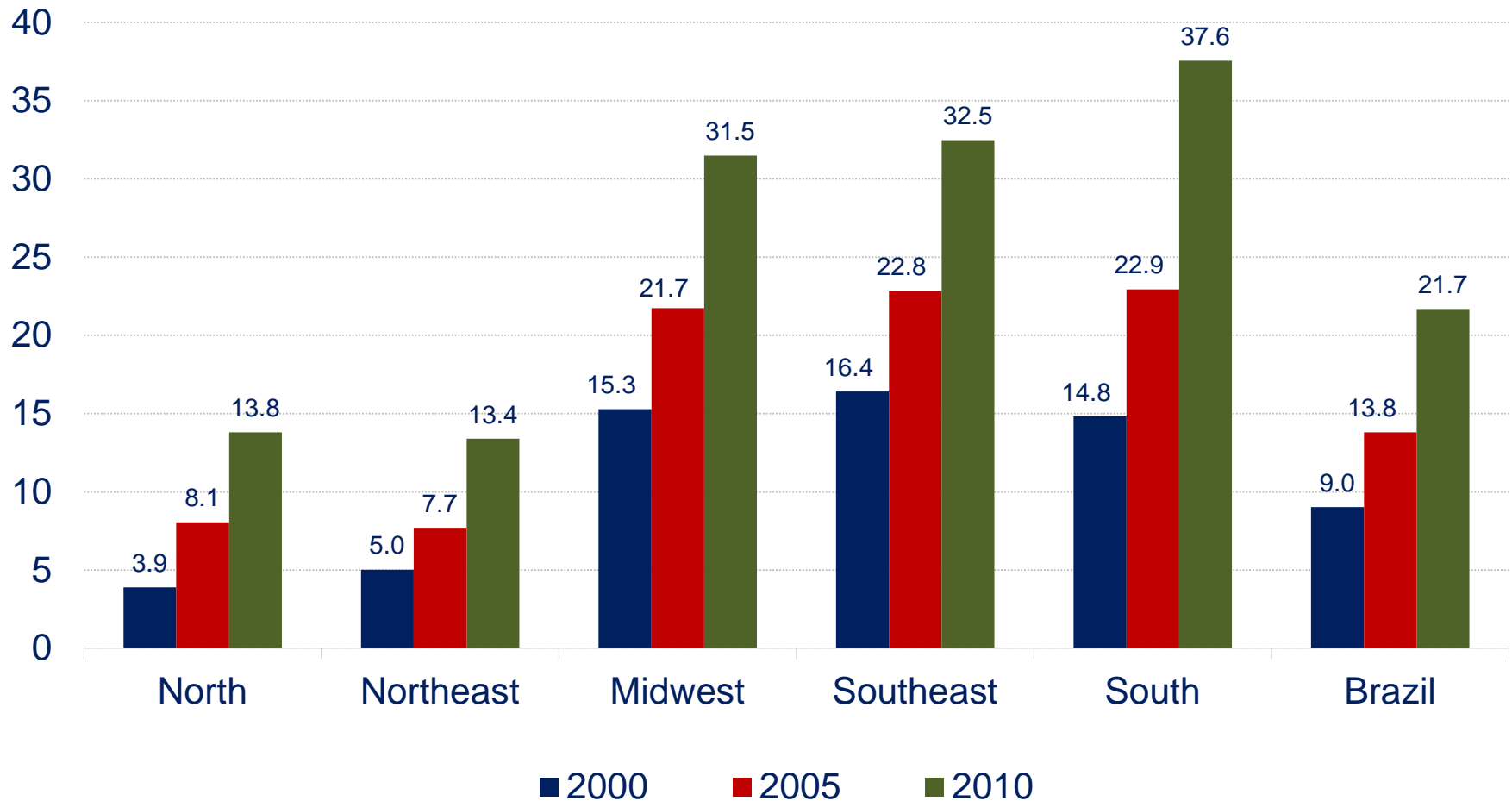
Indicator Ranges (pp)



* BCB's Financial Inclusion Indicator combines 18 access and usage measures

Less well-served regions benefited most

Financial Inclusion Indicator* - Region Average



* BCB's Financial Inclusion Indicator combines 18 access and usage measures

Access to Banking Services

	2002	2009	2011
Accounts (for the banking sector)	55,708,468	83,308,800	91,944,421
Customers	87,630,527	151,102,765	174,791,126
Branches			
For the banking sector	17,049	20,046	21,278
For all financial institutions	17,756	21,287	22,628
Posts of service (for the banking sector)	32,769	53,628	60,375
ATM's	129,913	165,567	174,920
Domestic correspondents	78,539	151,351	177,925
Municipalities			
Without banking services	222	-	-
With banking services	5,337	5,565	5,565
Municipalities banking services coverage	96%	100%	100%



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

The IMF's Financial Access Survey (FAS)¹

Andre Mialou, International Monetary Fund

¹ This presentation was prepared for the workshop. The views expressed herein are those of the author and should not be attributed to the IMF, its Executive Board, or its management.



THE IMF's FINANCIAL ACCESS SURVEY (FAS)

Statistics Department

The views expressed herein are those of the author and should not necessarily be attributed to the IMF, its Executive Board, or its management

Outline

- Overview of the FAS Project
- Methodology
- The 2012 FAS results
- The way forward

Overview of the FAS Project: History

- The FAS Project was unveiled jointly by HRH Princess Máxima of the Netherlands, the U.N. Secretary General's Special Advocate for Inclusive Finance for Development, and the IMF Managing Director at the World Bank-IMF Annual Meetings in Istanbul in October 2009.
- The FAS project stems from proposals in 2008 by the UN Advisors Group on Inclusive Financial Sectors. Princess Máxima chaired the group on which the IMF was represented.
- The results from the inaugural FAS were released in the online database in June 2010.

Overview of the FAS Project: Funding

- The government of the Netherlands provided initial funding for the start-up cost of the project
- 2012 FAS was enhanced significantly and was conducted in close collaboration with IFC and CGAP
 - IMF and IFC received financial support from the Netherlands' Ministry of Foreign Affairs
 - CGAP received financial support from the Australian Agency for International Development

Overview of the FAS Project: Objectives

- Collect and disseminate internationally-comparable financial inclusion data for as many countries as possible, including the newly-added items for the 2012 FAS round
- Ensure returned questionnaires are accurate and completed to the extent possible
- Develop and maintain a list of country correspondents to ensure clear channels of communication for future rounds of the survey

FAS Methodology: Indicators

- FAS provides underlying data for 38 indicators that assess two dimensions of financial inclusion
 - Access to basic consumer financial services
Examples: commercial bank branches per 1,000 km², number of ATMs per 1,000 km², commercial bank branches per 100,000 adults
 - Use of basic consumer financial services
Examples: depositors with credit unions and financial cooperatives per 1,000 adults, number of loan accounts with microfinance institutions per 1,000 adults, outstanding deposits with commercial banks (% of GDP), outstanding SME loans from commercial banks (% of GDP)
- FAS is also the source of data covering all five categories of the Basic Set of Financial Inclusion Indicators endorsed by the G-20 Leaders at the Los Cabos Summit in June 2012 (see next slide)

FAS Methodology: Indicators (cont.)

Categories	Indicators	Existing Global / Multi-country Source	Dimension of Financial Inclusion Measured
1 Formally banked adults	% of adults with an account at a formal financial institution	Global Findex	Usage
	Number of depositors per 1,000 adults OR number of deposit accounts per 1,000 adults	IMF FAS	
2 Adults with credit by regulated institutions	% of adults with at least one loan outstanding from a regulated financial institution	Global Findex	Usage
	Number of borrowers per 1,000 adults OR number of outstanding loans per 1,000 adults	IMF FAS	
3 Formally banked enterprises	% of SMEs with an account at a formal financial institution	WBG Enterprise Surveys	Usage
	Number of SMEs with deposit accounts/number of deposit accounts OR number of SME depositors/number of depositors	IMF FAS	
4 Enterprises with outstanding loan or line of credit by regulated institutions	% of SMEs with an outstanding loan or line of credit	WBG Enterprise Surveys	Usage
	Number of SMEs with outstanding loans/number of outstanding loans OR number of outstanding loans to SMEs/number of outstanding loans	IMF FAS	
5 Points of service	Number of branches per 100,000 adults	IMF FAS	Access

FAS Methodology: Institutional coverage

- FAS covers the following resident financial corporations that provide financial services:
 - Other depository corporations (ODCs): all ODCs (Commercial banks, Credit unions and financial cooperatives, Deposit-taking microfinance institutions, Other deposit takers). The central bank is excluded.
 - Other financial corporations (OFCs): all OFCs except financial auxiliaries and pension funds (Other financial intermediaries including Non-deposit taking microfinance institutions, and Insurance corporations)

- FAS covers the following resident institutional sectors that are users of financial services:
 - Nonfinancial corporations (including SMEs)
 - Households

FAS Methodology: Underlying data

- Underlying data for geographic outreach consist of the number of institutions, and the number of branches and ATMs, both country wide and in the 3 largest cities
- Underlying data for the use of financial services include:
 - Number of depositors (customers for OFIs and insurance policy holders for insurance corporations)
 - Number of deposit accounts (customer accounts for OFIs and insurance policies for insurance corporations)
 - Number of borrowers
 - Number of loan accounts
 - Outstanding deposits (acquired funds for OFIs and insurance technical reserves for insurance corporations)
 - Loans

FAS Methodology: Reference Manuals

- The FAS concepts are drawn from the methodology in the IMF's Monetary and Financial Statistics Manual and its accompanying Compilation Guide
- Countries are provided with a set of methodological documents where the concepts used in the questionnaire are defined
- Countries are asked to document any departures from the FAS concepts in their country notes
- Country notes are published along with the data on the FAS website
- Explanatory notes with definitions are published on the IMF's website and eLibrary

FAS Methodology: Data collection and dissemination

- Three-stage data collection process
 - National regulators (e.g. central bank) collect information from domestic financial institutions
 - National regulators aggregate these data across different types of institutions, and use the aggregated data to complete the questionnaire
 - FAS team collects data from the national regulators and ensures its validity through series of checks and verifications

- For 2012 FAS:
 - Official invitation letters were sent to central bank governors on March 20, 2012. Follow-up emails sent to data compilers shortly thereafter.
 - Data collection (through the FAS questionnaire) and validation began in early May, continuing through August
 - Indicator list, data reports, metadata, third-party data refined during this period
 - FAS data (indicators, underlying data, and metadata) released on September 19, 2012

FAS Methodology: Data collection and dissemination (cont.)

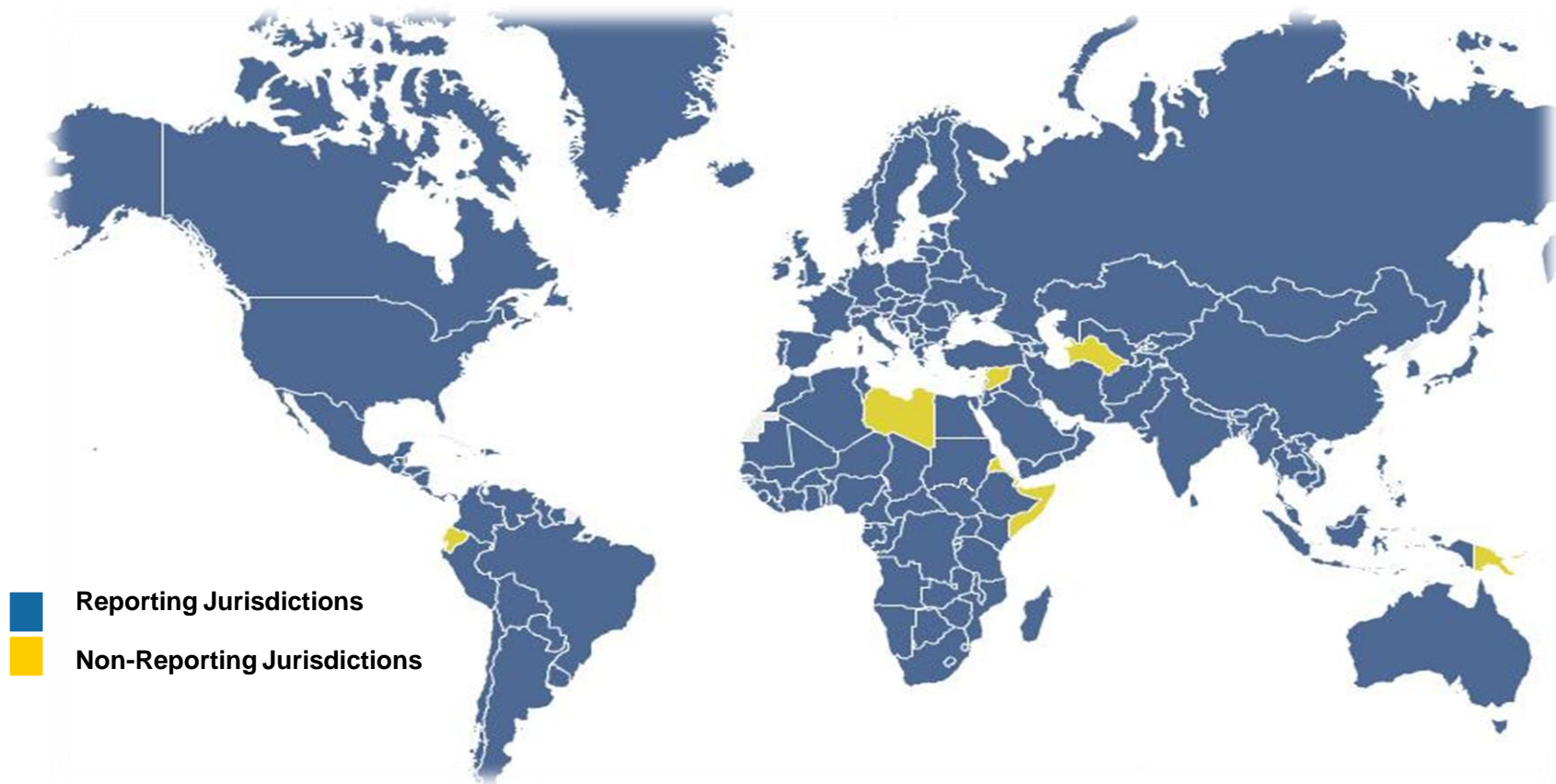
- Each reporting country receives a FAS questionnaire which consists of the following:
 - Instructions sheet
 - Cover Page (contact information, etc.)
 - Financial Access Survey (FAS questionnaire)
 - Notes – where correspondents are invited to provide additional explanations on data coverage and any deviations from concepts defined for the FAS questionnaire
 - Validation Sheet – used by correspondents and IMF staff to ensure the accuracy of the submitted data

FAS Methodology: Data collection and dissemination (cont.)

- During the 2012 round, the questionnaire was nearly tripled in size to broaden the coverage of institutions that cater their services to the poor
- New lines added to cover:
 - Number of deposit and loan accounts
 - Credit unions and financial cooperatives
 - Microfinance institutions
 - Life and non-life insurance
 - Small and medium enterprises (SMEs)
- ... in addition to existing lines for:
 - Number of institutions, branches, and ATMs
 - Number of depositors, borrowers, and insurance policy holders
 - Volume of deposits, loans, and insurance technical reserves
 - Breakdown for households

The 2012 FAS results: Country count

Covers 182 countries over an 8-year period – over 40,000 data points



□ Caveat: not all countries have all data for all years

The 2012 FAS results: Country count (cont.)

- ▣ The biggest increase in the number of reporting countries was seen among lower middle income and low income countries

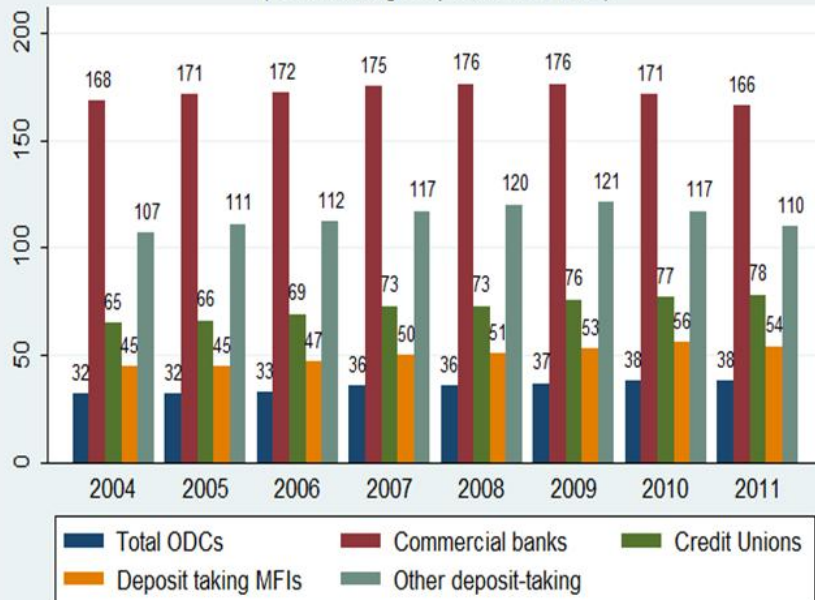


¹Income groupings were determined using the World Bank's classifications

The 2012 FAS results: Data Availability

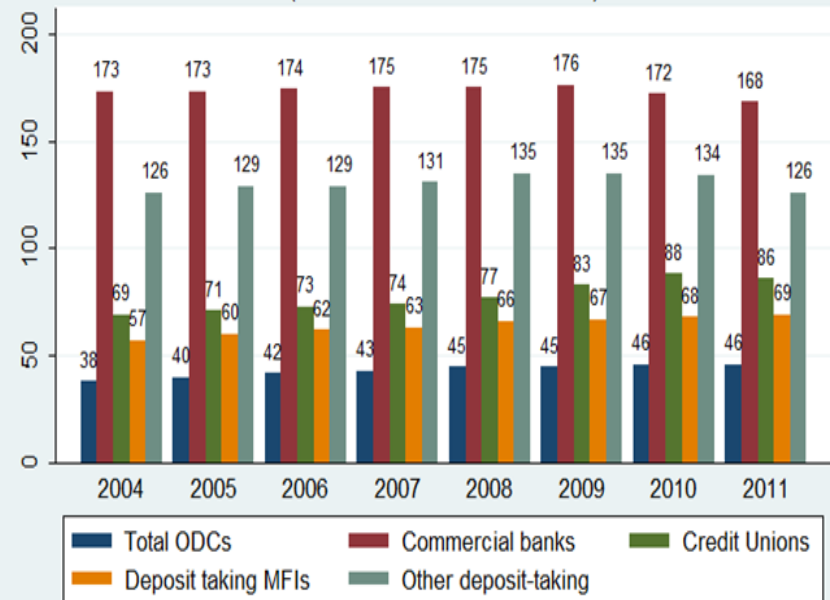
- The easiest to collect - data on commercial banks

Number of countries reporting the data
(Outstanding Deposits at ODCs)



Source: IMF 2012 FAS data

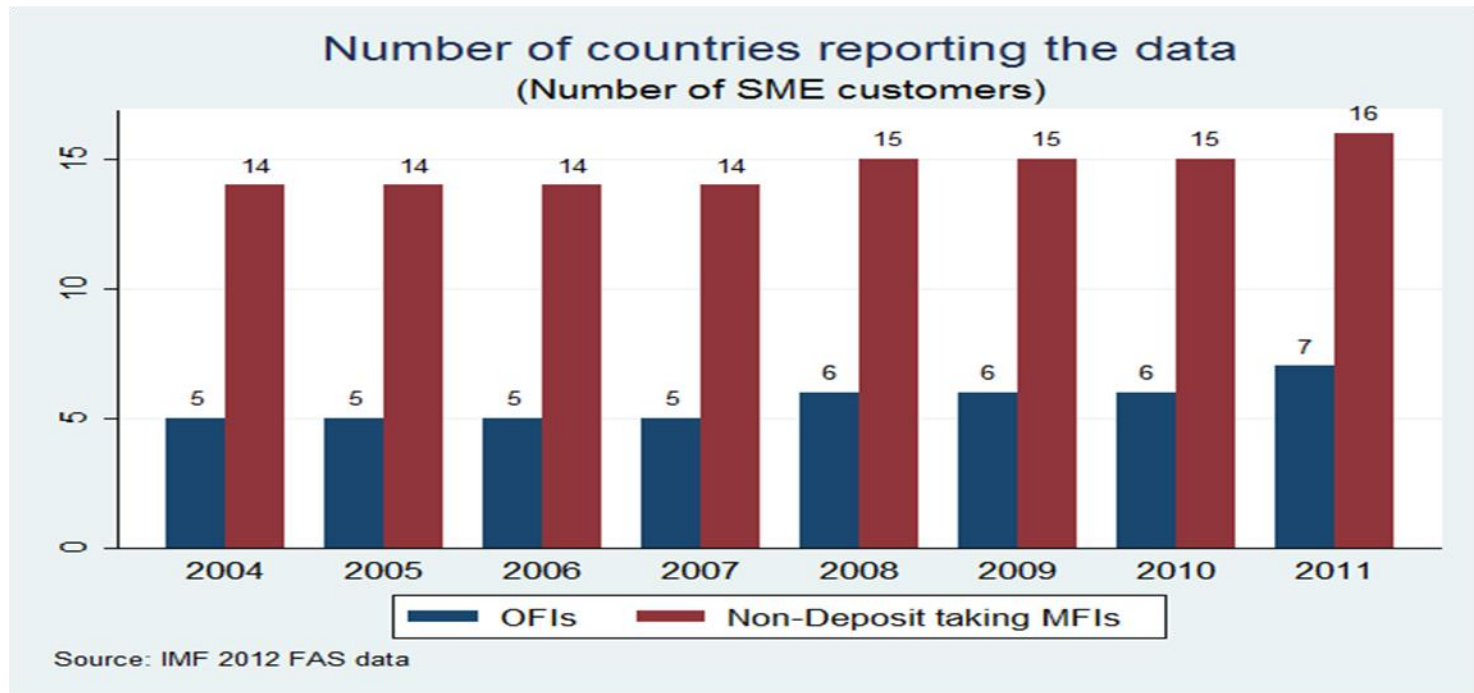
Number of countries reporting the data
(Number of ODC institutions)



Source: IMF 2012 FAS data

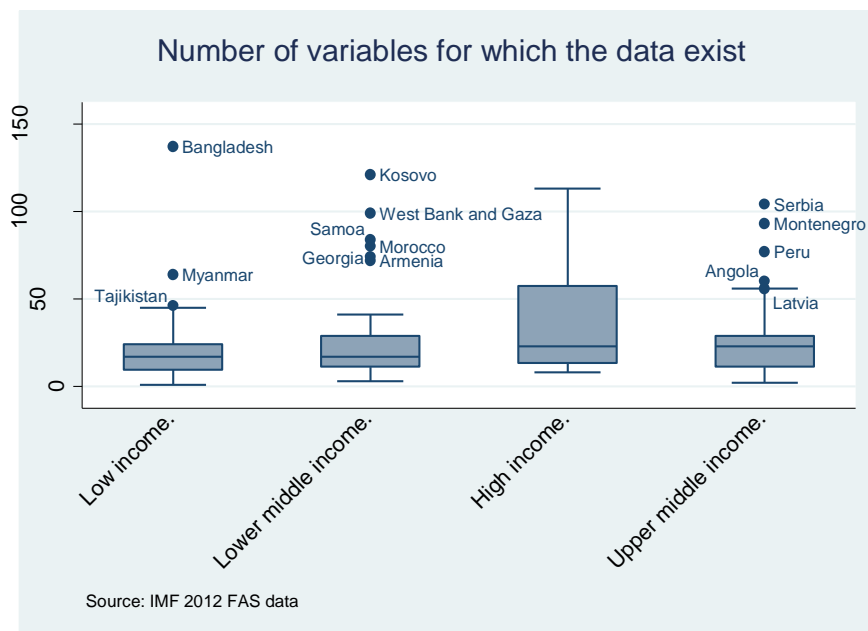
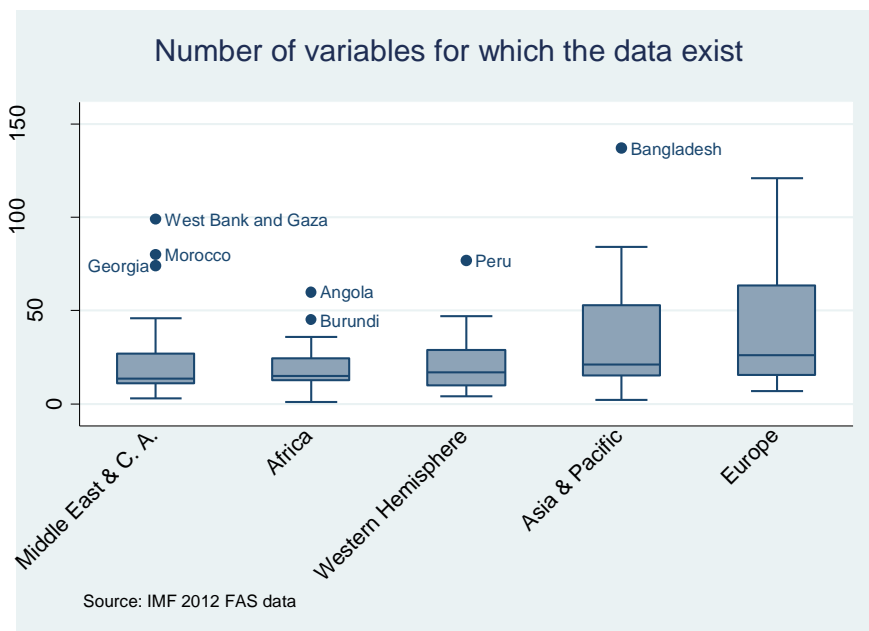
The 2012 FAS results: Data Availability (cont.)

- The most difficult data to collect - data for OFIs and microfinance institutions on SMEs



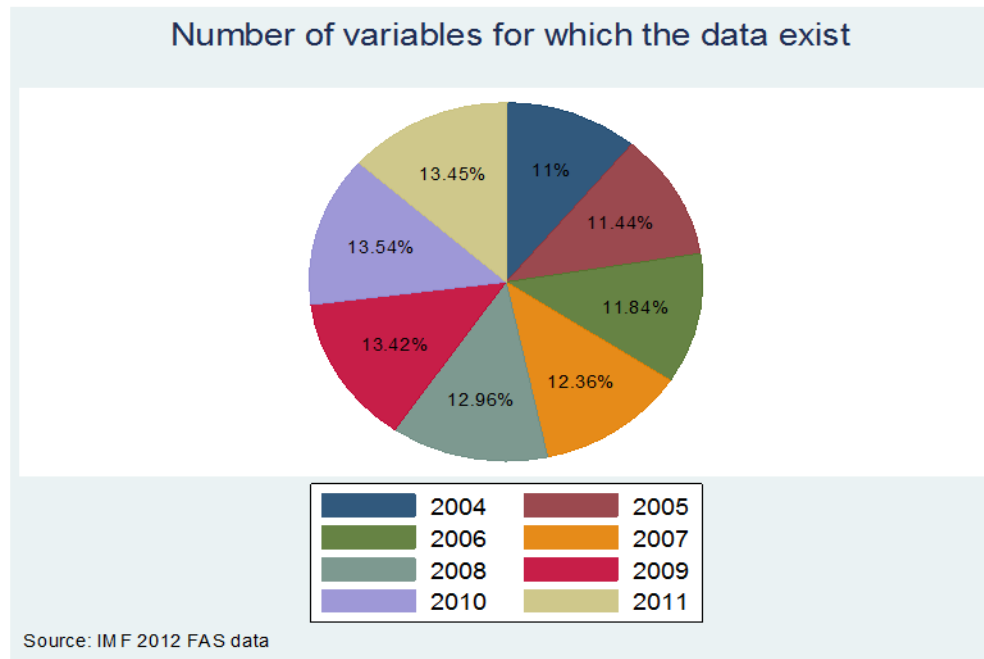
The 2012 FAS results: Data Availability (cont.)

- Differences exist in the distribution of data points among countries



The 2012 FAS results: Data Availability (cont.)

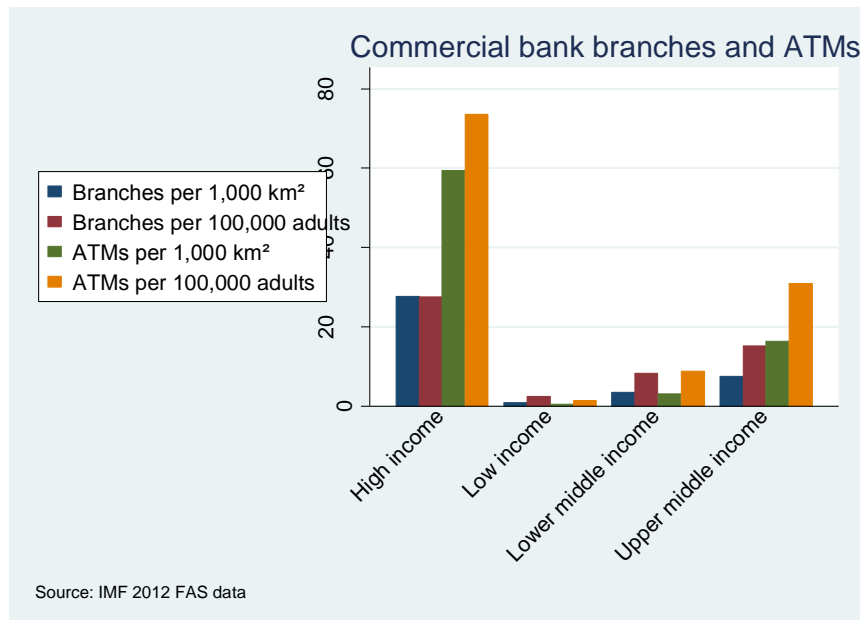
- The data coverage for more recent years is better



- Collecting data on newly introduced indicators was more difficult than collecting the previously collected data

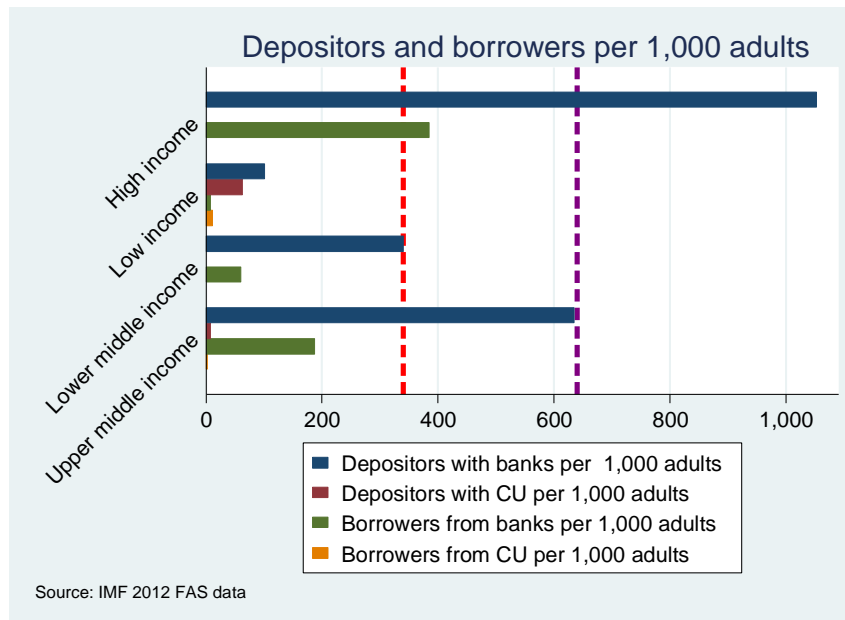
The 2012 FAS results: Derived indicator profiles

- Most geographical outreach indicators tend to be correlated with the country development levels. The chart below for Commercial bank branches and ATMs per 1,000 km² and 100,000 adults illustrates this result



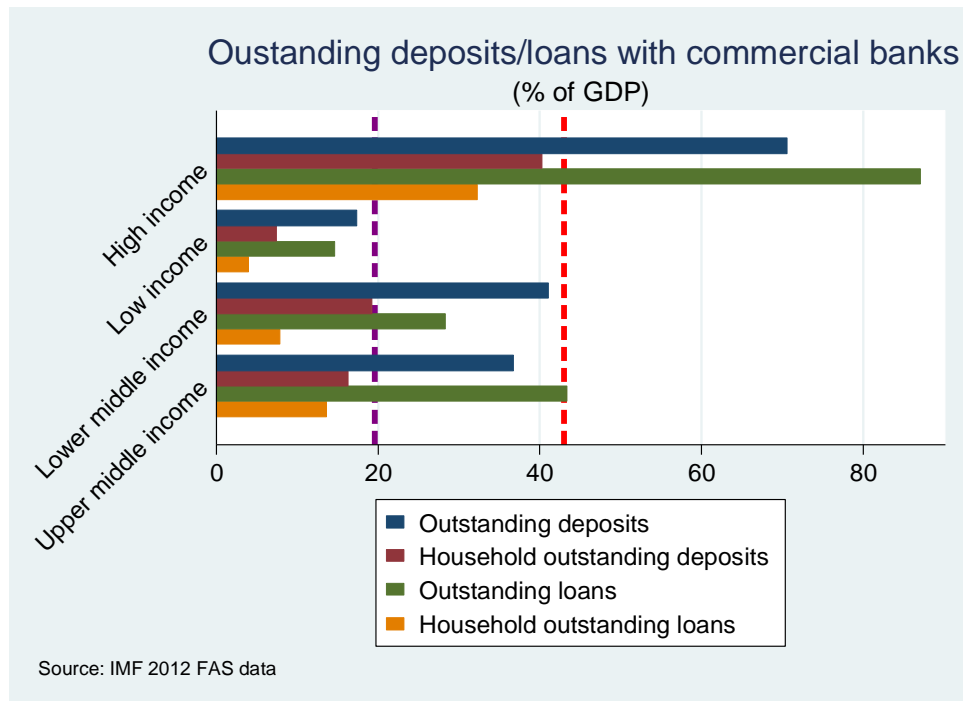
The 2012 FAS results: Derived indicator profiles (cont.)

- A similar correlation shows up between indicators of the use of financial services and the country degree of development as illustrated in the charts below for depositors and borrowers from commercial banks and credit unions per 1,000 adults...



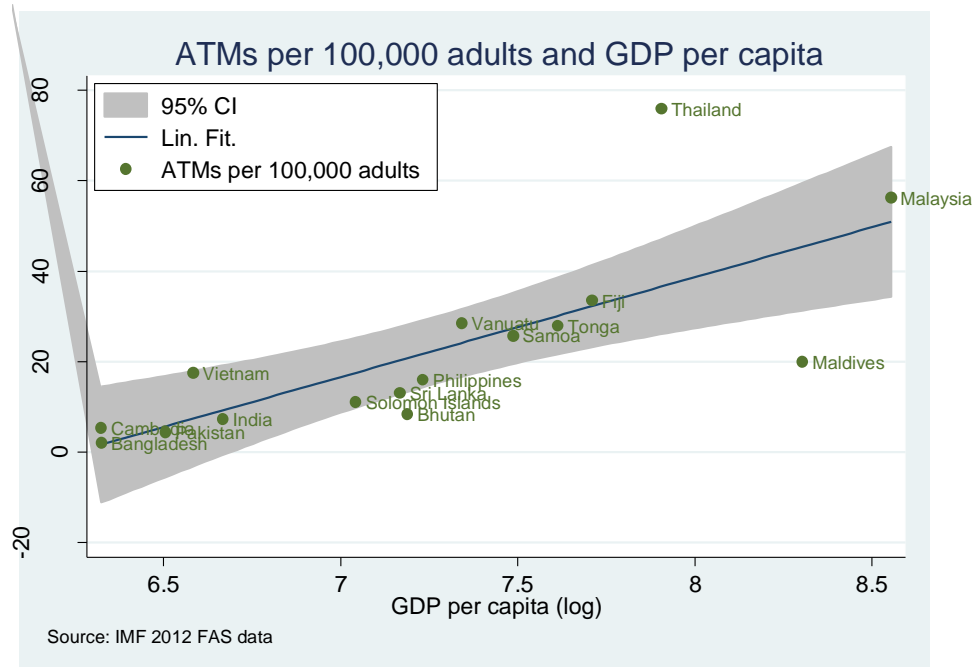
The 2012 FAS results: Derived indicator profiles (cont.)

- ... and outstanding deposits and loans with commercial banks



The 2012 FAS results: Data Applications

- Scatter plots with linear fitting tend to confirm the positive correlation between access to finance indicators and GDP per capita. An illustration is given by the chart below for the number of ATMs per 100,000 adults



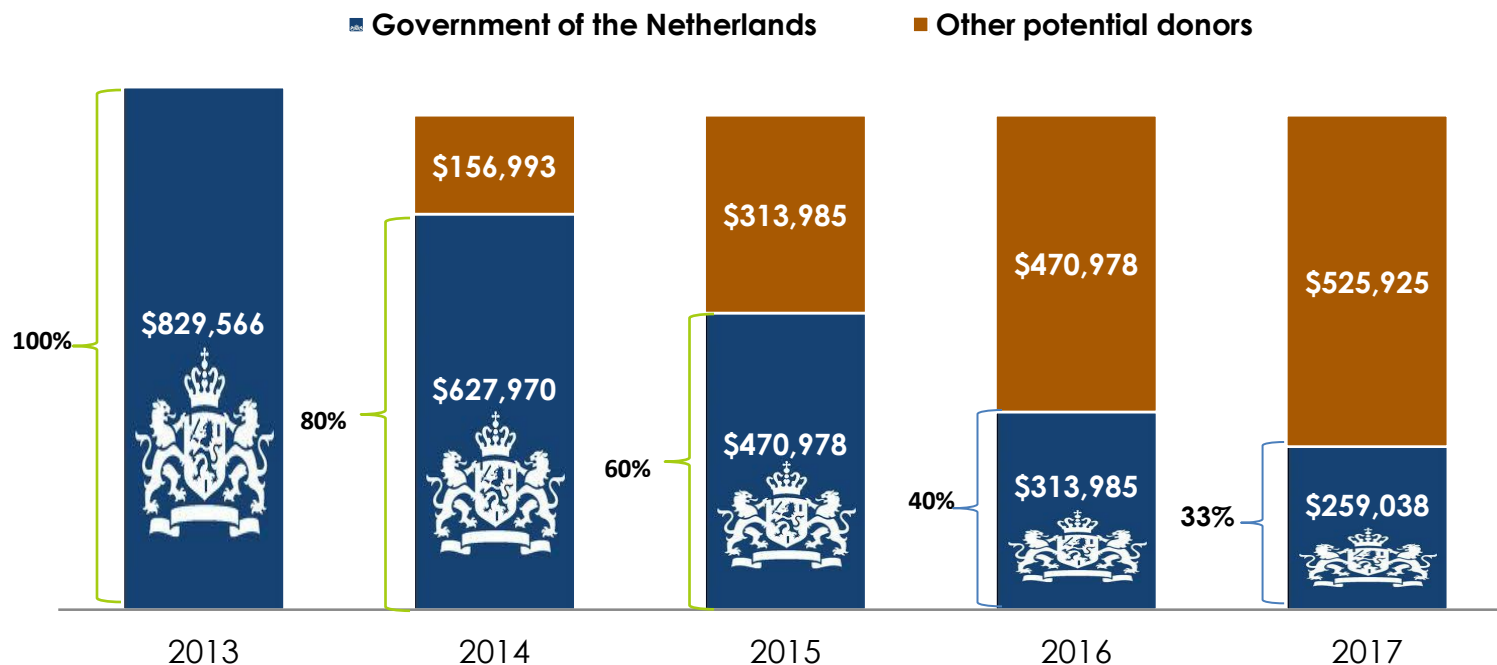
The way forward

- Better targeting of financial regulators (primary and secondary)
 - Superintendent of Banks (South America)
 - Microfinance institutions vs. Development Banks (South East Asia)
- More accurate contact lists
 - Central Bank vs. Treasury vs. Other national institutions
 - Example of Turkey (Treasury / Central Bank), Romania (National Commission of Financial Market), Ethiopia (CGAP)
- Pursue late/non-reporters earlier
- Improve data collection for those indicators that are not widely reported (e.g., SME)
- Address the coordination among national data collection agencies

The way forward: Funding

- The estimated total cost of the FAS project for the period 2013 – is provided in the chart below:

The estimated total cost of the FAS project, 2013 - 2017





IFC Workshop on Financial Inclusion Indicators
Co-hosted by Bank Negara Malaysia
5 – 6 Nov 2012, Sasana Kijang, Kuala Lumpur

Measuring financial inclusion from the demand side¹

Sabri Öncü, CAFRAL / Reserve Bank of India

¹ This presentation 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.

CAFRAL Workshop on Measuring Financial
Inclusion from Demand Side
June 8, 2012

T. Sabri Öncü

Head of Research

Center for Advanced Financial Research and Learning

Reserve Bank of India

Issues Discussed at the Workshop

- Why should we measure financial inclusion from the demand side ?
- What data should we collect to measure financial inclusion from the demand side ?
- What should be the sampling and survey methodologies?
- What should be a measure of financial inclusion from the demand side: an index or a dashboard?

Before Those

Grey Areas of Existing Definitions:

- Extant definitions are fairly congruent
- Access focused: do not capture usage and outcomes
- Emphasise convenience and flexibility – exclude issues such as suitability, financial advice, wealth management etc.
- Need focus on firms as well as households – a distinction which is very thin and unclear, currently

Conclusion: The concept of financial inclusion has to evolve beyond its current focus on provision of access to financial products and services **with an additional focus on the quality of use.**

Objectives of Demand Side Measurement

- Financial Inclusion is measured predominantly from the supply side – **top down** – and does not capture perspectives of small businesses and low income households
- The demand side – **bottom up** – measures would supplement the existing supply side measures to improve the picture
- Policy makers and regulators can use such measures:
 - to modify the policies and strategies;
 - to facilitate measurement of outcomes of various policy initiatives
- Financial service providers can use such measures:
 - to design customised financial products for specific regions and categories of consumers

Demand Side Financial Inclusion Indicators Should Capture

- Not just income but types of income and income sources
- Savings in informal and formal institutions
- Ways in which households mitigate risk
- Household and small business demand for financial services
 - Use of bank/post office account
 - Payments
 - Savings
 - Credit
 - Insurance

Suggestion: Using measures similar to World Bank's Global Findex might help the measures to be internationally comparable

Demand Side Financial Inclusion Indicators

Socioeconomic and Demographic Characteristics

- In addition to usual socioeconomic and demographic characteristics such as **location, age, income, education and occupation**, look into finer nuances such as **house or living space, access to water, sanitation, medical facilities, changes food consumption, migration status, land holding, physical disability, social group**, etc.
- Purpose of collecting additional socioeconomic and demographic parameters should be:
 - To correlate inclusion and exclusion;
 - To perform a social audit on banks' progress given the results and conclusions from tracking the impact on these parameters over time and space;
 - And hence, to impact policies and strategies of regulators and practitioners

Demand Side Financial Inclusion Indicators Should Help Identify Barriers

- There is demand for financial services. But there is need to identify the reasons for nonusage and, more importantly, understand why usage does not translate into good outcomes
- Barriers mentioned in the World Bank Global Findex are a good starting point: distance, awareness, affordability, trust, lack of documentation, religious/cultural barrier, lack of money
- Additional suggestions: consumer experiences, financial literacy, lack of customised products, unwillingness of banks to lend in certain cases, insufficient infrastructure of financial service providers ...

Latent Demand for Financial Services: At the ATM Kalwakurthy, Mahabunagar, Andhra Pradesh



Lessons from the Field

Reasons for Exclusion

- Two main reasons:
 - low income of, and nature and scale of business with poor households
 - perception that these households are highly risky and not profitable
- Another reason:
 - Misselling of products, high commissions and regulations to change these

Question: Can the regulators look at these more carefully to give us some insight on why households are making the kind of financial decision they are making?

Survey Methodology

- Simple but meaningful ratios would give more insight on what are the trends rather than an index
- Nature of sample should enable both national and granular level measurement and analysis
- Focus on both households as well as businesses
- For households, responses should be obtained at both household and individual member level
- Should capture both financial indicators as well as key socioeconomic and demographic indicators
- **Frequency:** more frequently than some of the existing national surveys such as All India Debt and Investment Survey (AIDIS) conducted once in 10 years.

Noteworthy Data Collection Initiatives in India

- **Yale – Center for Micro Finance/Institute for Financial Management and Research longitudinal data survey:** a detailed survey on how respondents meet their financial needs and thereby helps to identify the new financial tools which current surveys fail to capture
- **The Invest India Incomes and Savings Survey (IISS):** a unique unit-record database that links the incomes, investment and savings portfolios, insurance and credit positions, financial sector access and the like across 321 million members of rural and urban India.
- **The Centre for Monitoring Indian Economy (CMIE) Household Panel survey:** quarterly for 150,000 households

Tentative Action Plan

- Finalize methodology, questionnaire design and agreement of content among stakeholders
- Conduct a pilot survey with a sizeable portion of the sample to ensure appropriate responses are received
- Analyze the pilot results and redesign survey, if necessary
- Prepare and administer the survey among the target population
- Prepare survey results and cross-check against other data sources, depending on the capacity available to mine the results
- Propose additional questions to the existing Indian National Sample Survey Office (NSSO) surveys



Irving Fisher Committee on
Central Bank Statistics

BANK FOR INTERNATIONAL SETTLEMENTS

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The Global Financial Inclusion Index¹

Douglas Randall, World Bank

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Global Findex

Global Financial
Inclusion Index



Development Research Group
Finance and Private Sector Development Team

BILL & MELINDA
GATES foundation



What is the Global Findex?

- The first individual-level database on financial inclusion that is comparable across countries and time.
- Based on more than 150,000 interviews with adults ages 15+, representing more than 97 percent of the world's adult population.

What does it measure?

- Measures in detail the way in which adults in 148 economies save, borrow, make payments, and manage risk.
- Includes 41 indicators, disaggregated by gender, age, education level, income, and residence (urban or rural).



Why is the Global Index valuable?

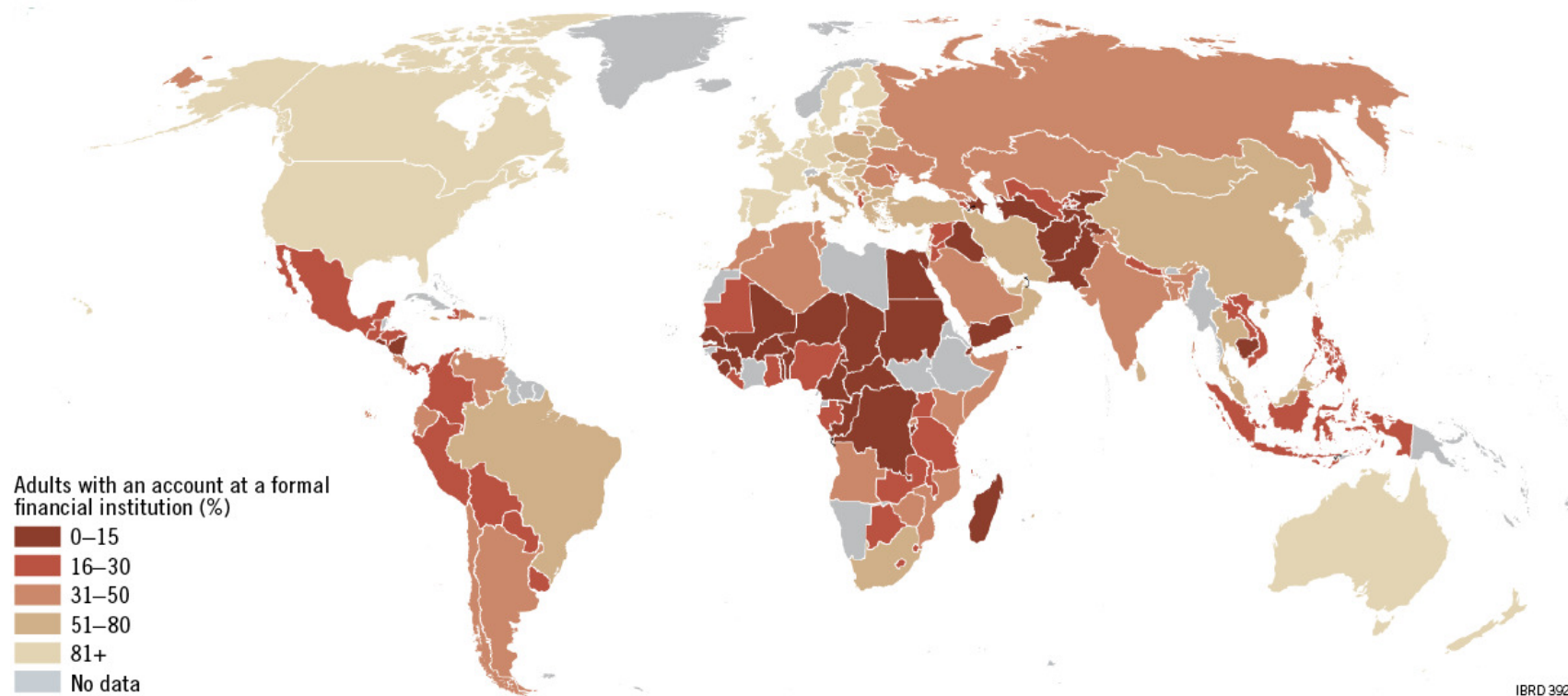
- Provides a tool to benchmark levels of financial inclusion, measure the impact of public policies, and identify potential clients and the demand for new products.
- Uses a consistent methodology across time and countries.
- Long-term project: the first round of data was released in April 2011, with complete updates in 2014 and 2017.
- Complements country-level efforts, & supply-side data (G20 Basic Set)

Who are our partners?

- The survey was carried out by Gallup, as part of its annual World Poll.
- The project is funded by the Bill and Melinda Gates Foundation.



Account penetration around the world



IBRD 39220 MARCH 2012

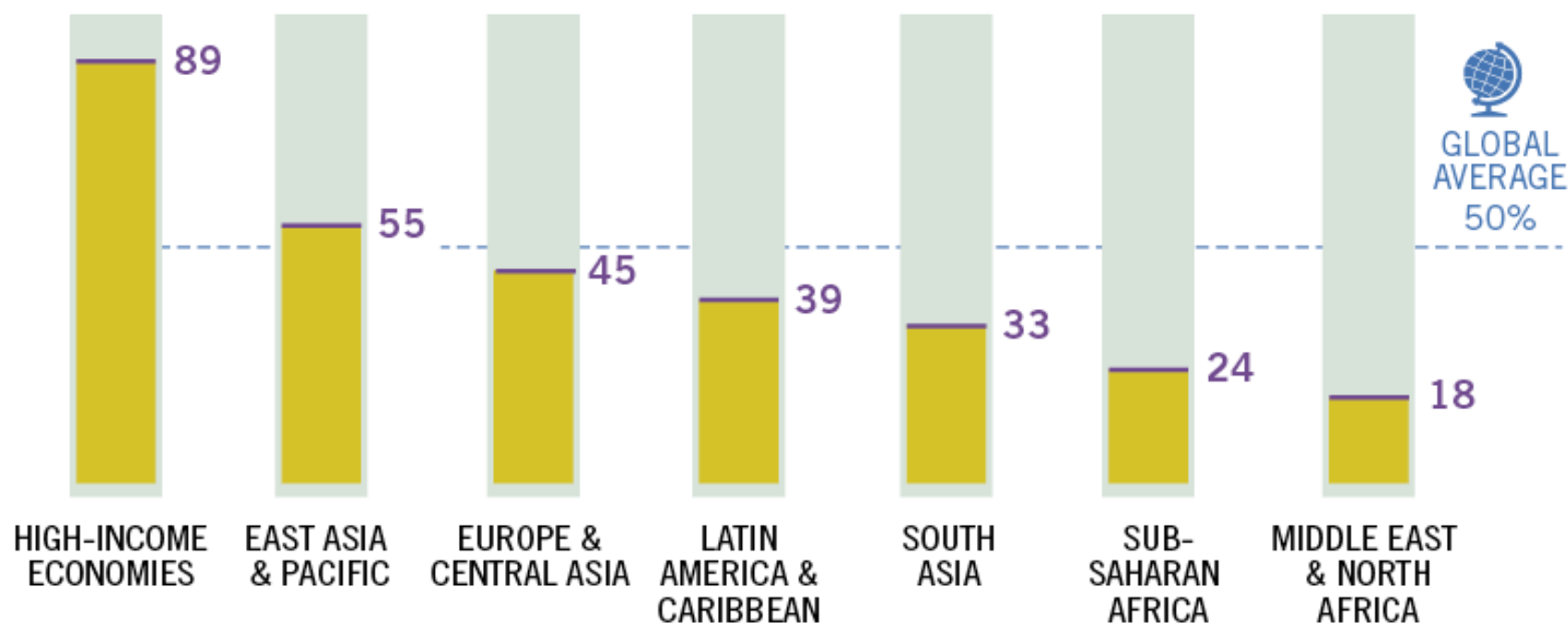
Source: Demirguc-Kunt and Klapper 2012.

The Global Findex covers **148** economies – in **23** economies, account penetration is over **95 percent**, in **21** economies account penetration is **5 percent** or less



Account penetration

Adults with an account at a formal financial institution (%)

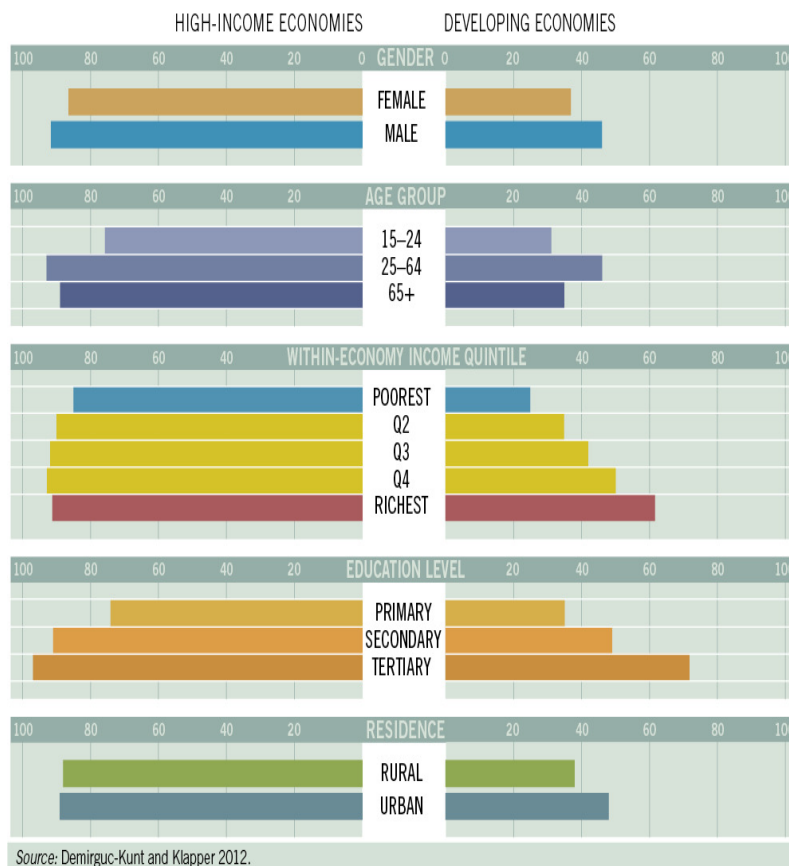


- Regionally, account penetration varies from **89 percent** in high-income economies to 24 and 18 percent in Sub-Saharan Africa, and the Middle East and North Africa, respectively
- The average account penetration among all adults in the developing world is **43 percent**
- Among those living below \$2/day, only **23 percent** have a formal account



Account penetration by individual characteristics

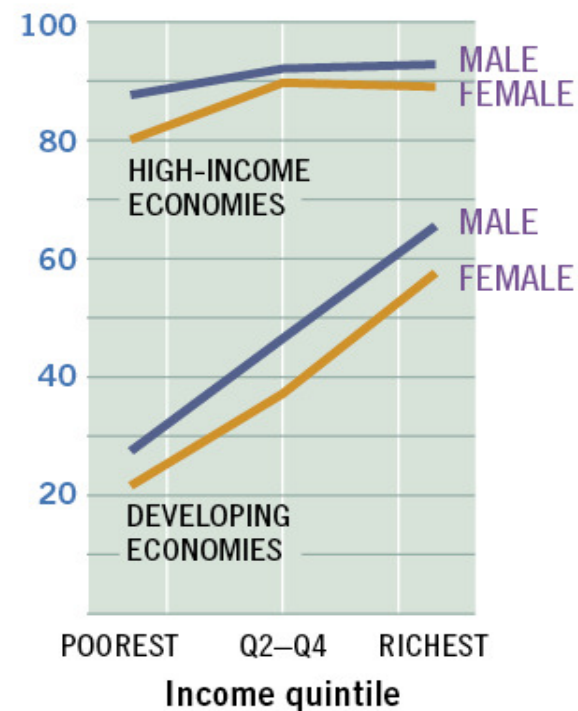
Adults with an account at a formal financial institution (%)



Source: Deming-Kunt and Klapper 2012.

Account penetration by gender across within-economy income quintiles

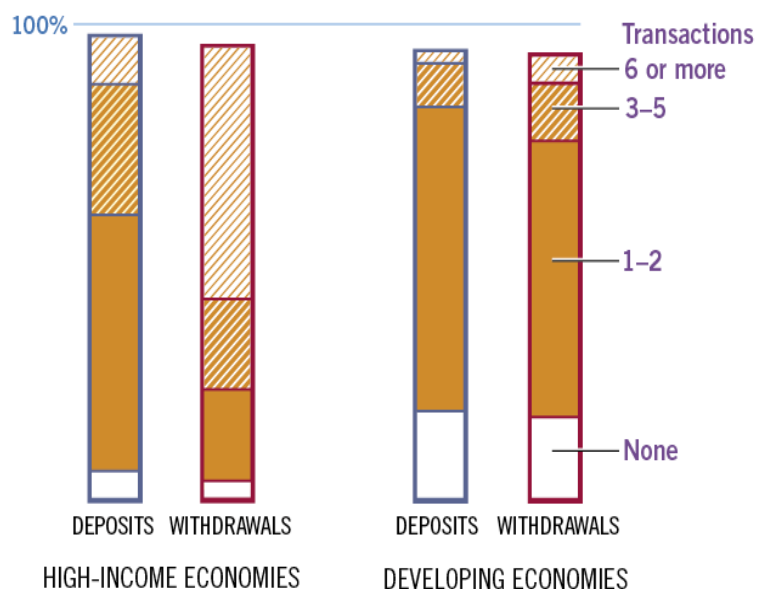
Adults with an account at a formal financial institution (%)



- Women, youth, the poor, and rural residents are the least likely to have a formal account
- A 6-9 percentage points gender gap persists across income groups in developing economies

Frequency of deposits and withdrawals by account holders

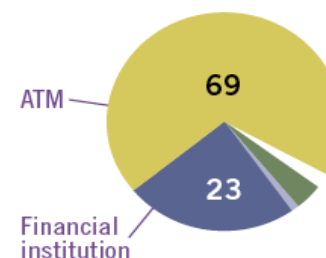
Adults with a formal account by number of transactions in a typical month (%)



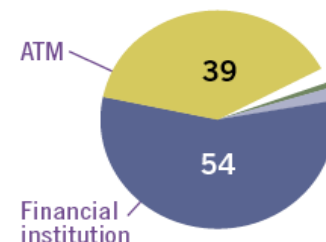
How account holders access their accounts

Adults with a formal account by most common mode of withdrawal used (%)

HIGH-INCOME ECONOMIES



DEVELOPING ECONOMIES



- **8 percent** of account holders worldwide have zero deposits and withdrawals in a typical month
- **50 percent** of account holders in developing economies both deposit into and withdraw from their account 1-2 times in a typical month
- **73 percent** of account holders in developing economies typically withdraw money from a teller



Self-reported barriers to use of formal accounts

Non-account-holders reporting barrier as a reason for not having an account (%)

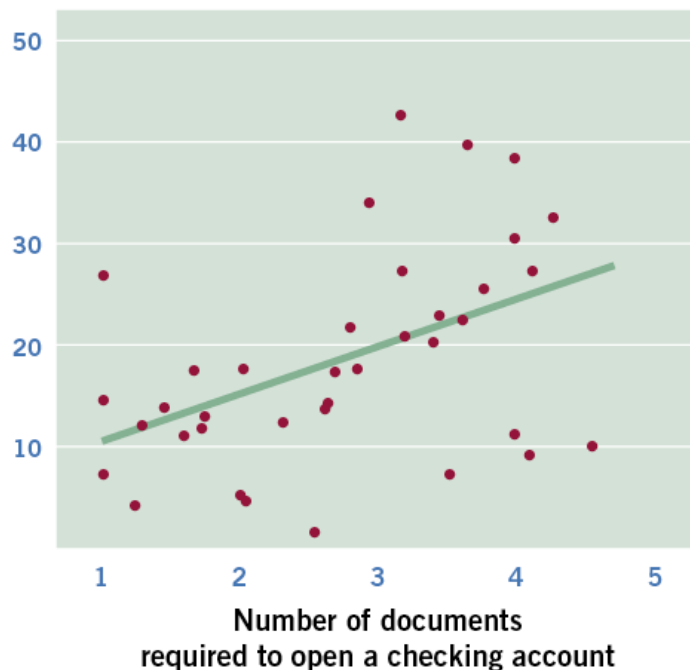


Note: Respondents could choose more than one reason. The data for “not enough money” refer to the percentage of adults who reported only this reason

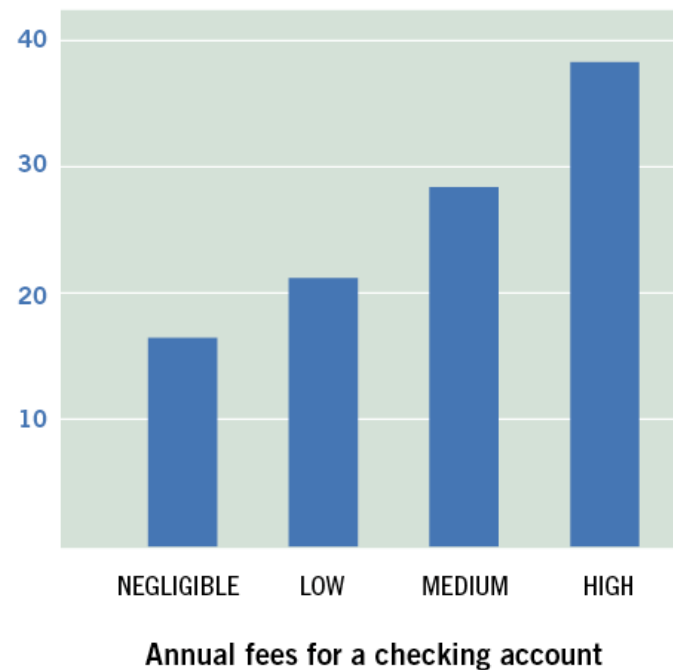
- **31 percent** of unbanked in Sub-Saharan Africa choose “Too far away”
- **31 percent** of unbanked in Europe and Central Asia choose “[I] don’t trust banks”
- **40 percent** of unbanked in Latin America & the Caribbean choose “They are too expensive”

Objective data support perceptions of documentation requirements and cost as barriers to use of formal accounts

Non-account-holders citing lack of documentation as a barrier (%)



Non-account-holders citing cost as a barrier (%)

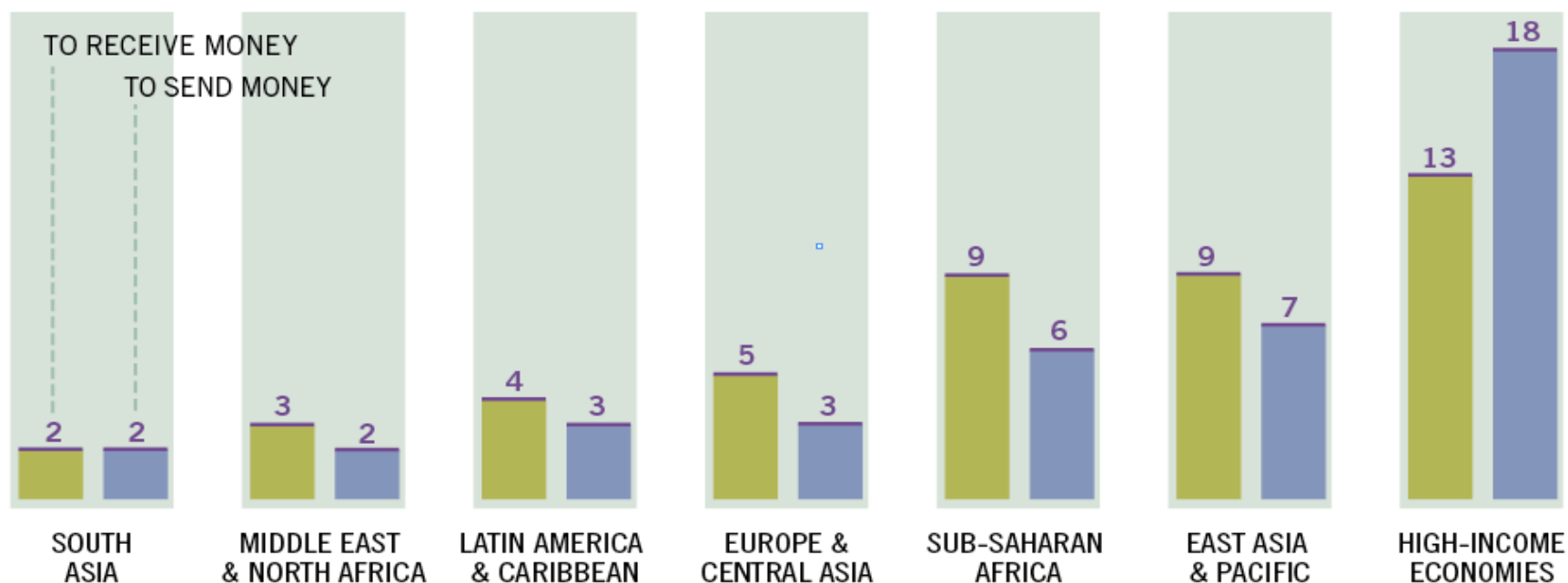


Note: Data on number of documents required are for 2005. Data on annual fees are for 2010 and reflect scoring by the national central bank. The sample for the left-hand panel includes 38 economies, and the sample for the right-hand panel 100 economies.
Source: Demirguc-Kunt and Klapper 2012; World Bank, Bank Regulation and Supervision Database; World Bank Payment Systems Database.

Significant relationship between subjective and objective measures of documentation requirements, even after accounting for GDP per capita

Use of accounts for family remittances

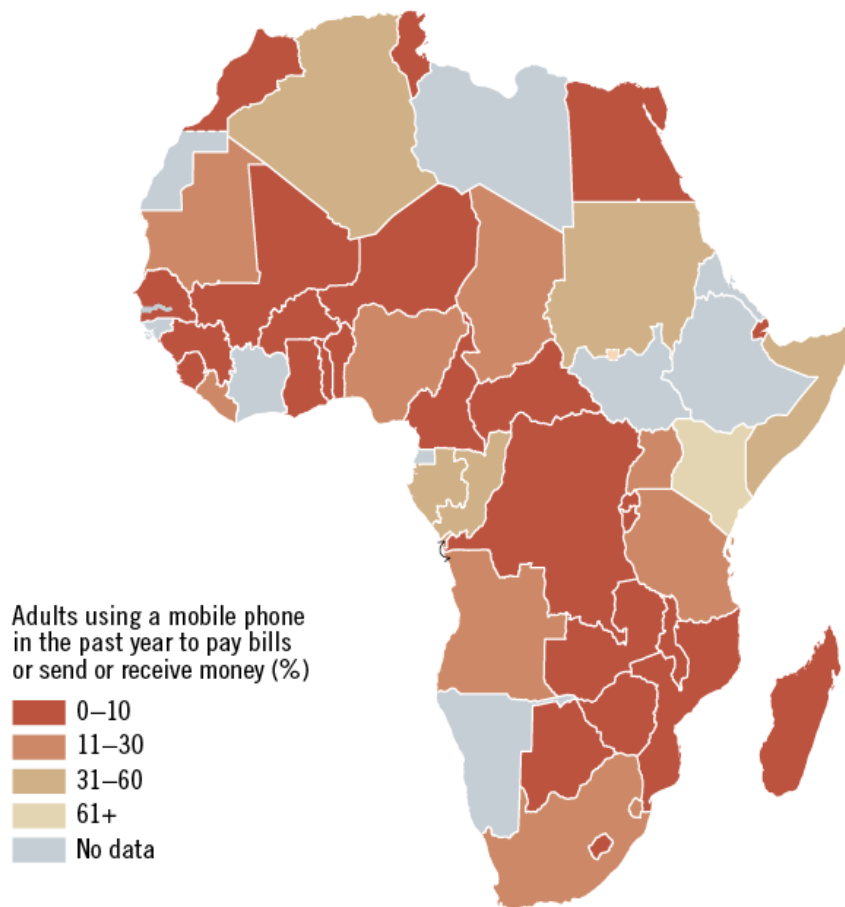
Adults using a formal account in the past year to transfer money to or from relatives living elsewhere (%)



38 percent of account holders in SSA use their account to receive money from family living elsewhere

61 percent of account holders in ECA use their account to receive wages—compared to **34 percent** of all account holders in developing countries and **56 percent** of account holders in high-income countries

Mobile money users in Africa



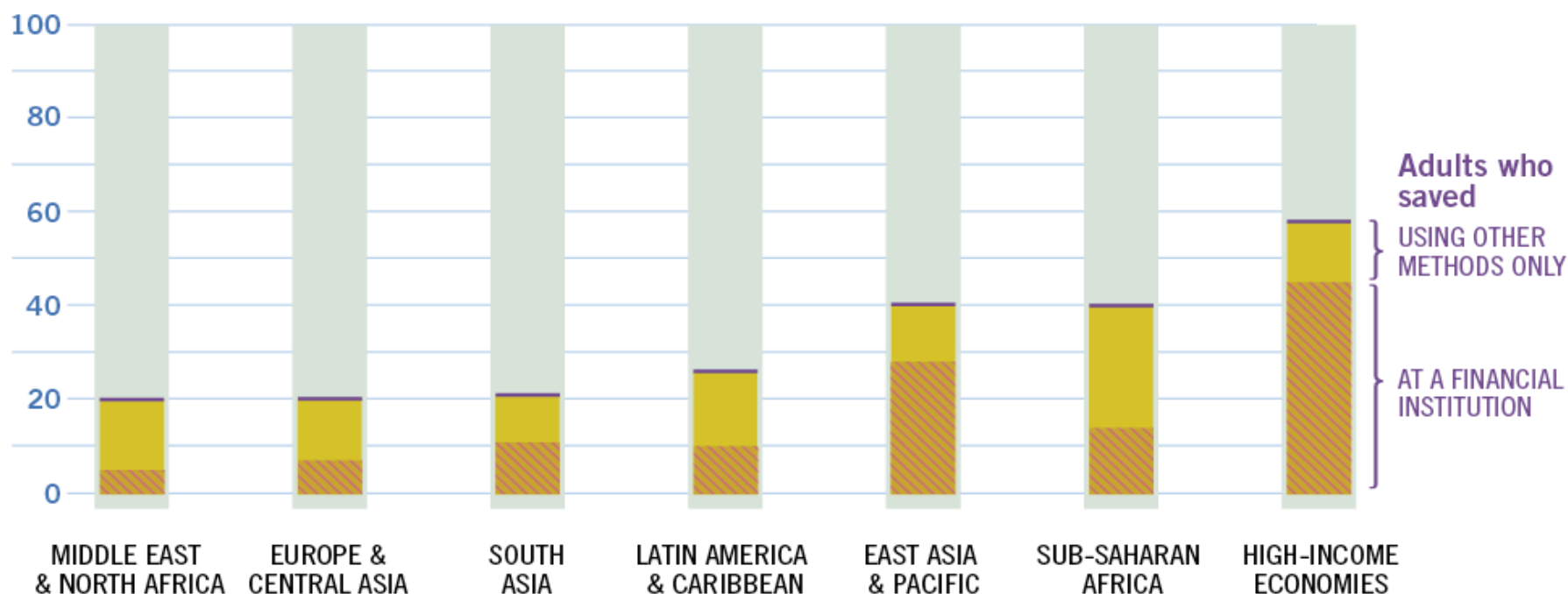
16 percent of adults in SSA use a mobile phone to pay bills, send or receive money in the past 12 months

68 percent of adults in Kenya use mobile technology, driven by the early success of M-PESA

52 percent of adults in SSA that use mobile technology are otherwise unbanked

Formal and informal saving

Adults saving any money in the past year (%)



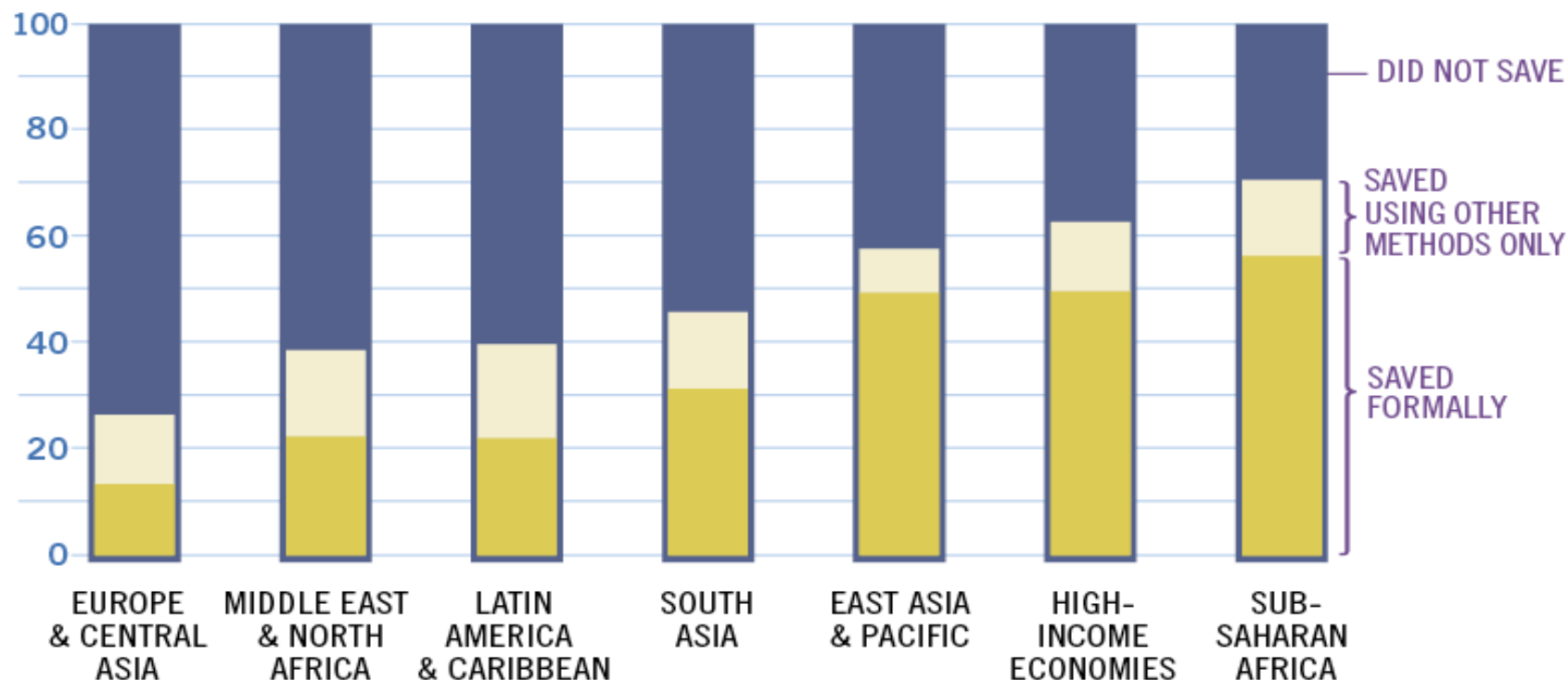
31 percent of adults in developing economies saved in the past year

56 percent of savers in developing economies saved using a formal financial institution

48 percent of savers in in Sub-Saharan Africa saved using a community-based method

Savings behavior among account holders

Adults with a formal account by savings behavior in the past year (%)

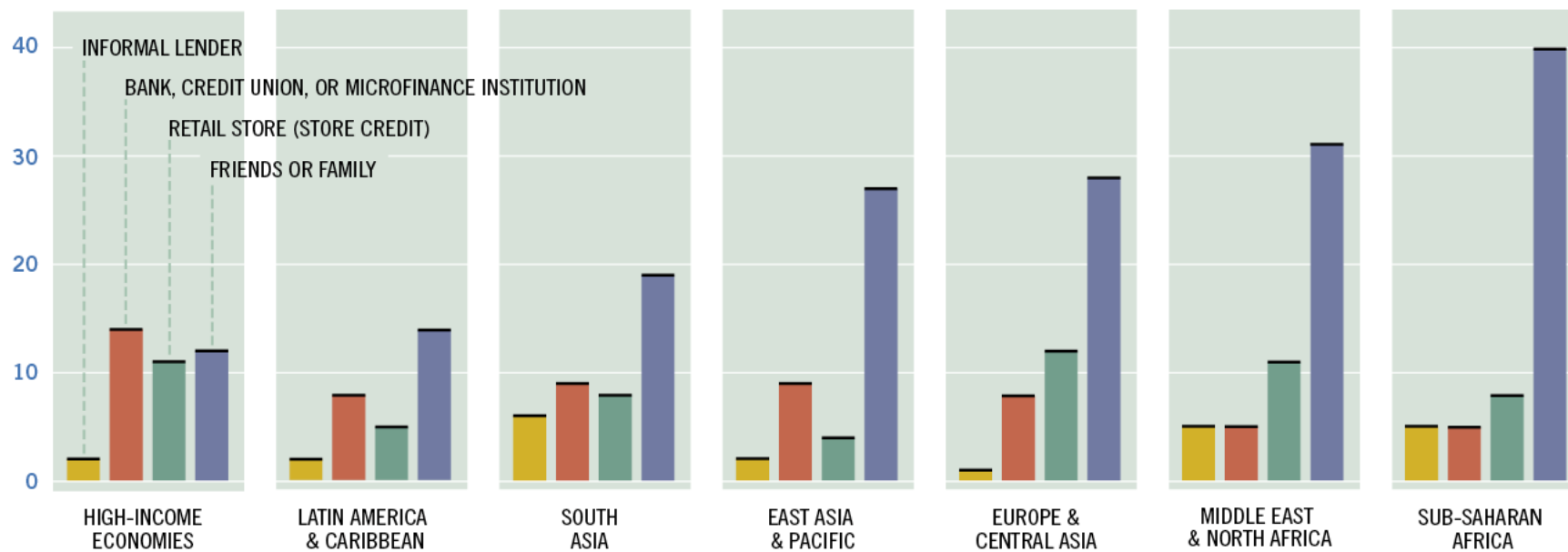


40 percent of account holders in the developing world saved using a formal financial institution

7 percent of account holders in ECA saved using a formal financial institution

Sources of new formal and informal loans

Adults borrowing from source in the past year (%)



7 percent of adults in developing economies have a credit card—compared to **50 percent** of adults in high-income economies

8 percent of adults in developing economies borrowed money from a formal lender in the past 12-months—compared to **14 percent** of adults in high-income economies

17 percent of adults personally purchased health insurance; 6 percent of adults working in farming, forestry, or fishing have crop, rainfall, or livestock insurance



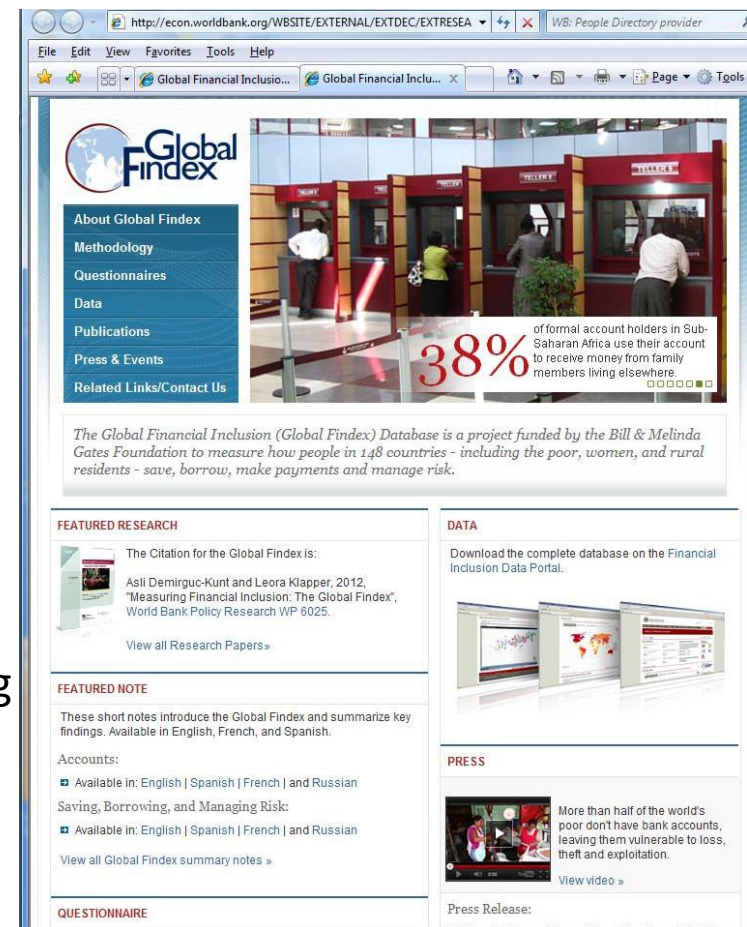
What to look for in 2014....

- 1) Success of G2P reforms? Early evidence from Saudi Arabia...
- 2) Closing the gender gap?
- 3) Progress below \$2/day line?
- 4) Movement in self-reported barriers to access?
- 5) Growth of mobile money?
- 6) Growth of bank agents?



There is much more information on the Global Findex website:

- Report and Notes (in 3 languages)
- The complete questionnaire (in 141 languages)
- The complete country-level database, including data on:
 - The use of accounts to receive payments from the government, employers, family
 - The use bank agents
 - Frequency and mode of account access
 - Prevalence of informal saving and borrowing
 - The use of mobile money
- Analytical tools to make customized maps and graphs



GLOBAL FINDEX DATA RELEASE



THE WORLD BANK

Development Research Group
Finance and Private Sector Development Team

India - Global Financial Inclusion Database (Global Findex) 2011 - Windows Internet Explorer

http://www.ihsn.org/apps/training/index.php/catalog/20

WB: People Directory provider

File Edit View Favorites Tools Help

India - Global Financial ... x Data Catalog

Microdata Catalog

Home > Data catalog > IND_2011_FINDEX_V01_M

India - Global Financial Inclusion Database (Global Findex) 2011

Reference ID	IND_2011_FINDEX_v01_M
Year	2011
Country	India
Producer(s)	World Bank
Sponsor(s)	Bill and Melinda Gates Foundation - -
Data	Access policy Microdata request form (Public access)
	Interactive tools Study website

Related Materials

Questionnaires

- Global Findex 2011 Questionnaire

Technical Documents

- Global Findex 2011 - Survey Methodology, English [eng]
- The Global Findex Database - Accounts and Payments (Note 01), Asli Demirguc-Kunt and Leora Klapper, English [eng]
- The Global Findex Database - Saving, Borrowing, and Managing Risk (Note 02), Asli Demirguc-Kunt and Leora Klapper, English [eng]

Other Materials

- Measuring financial inclusion : the Global Findex Database, Asli Demirguc-Kunt and Leora Klapper, English [eng]

Citations of publications that used the study

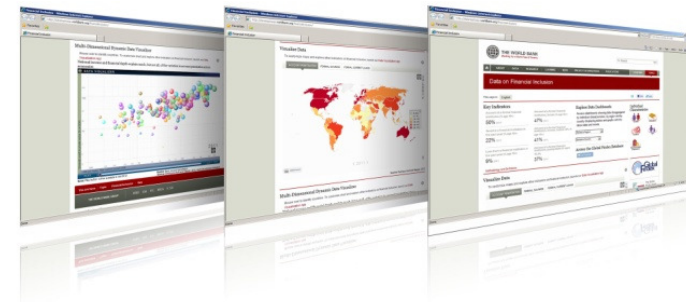
Demirguc-Kunt, Asli, and Leora Klapper. "Measuring Financial Inclusion The Global Findex Database." World Bank Policy

Study Information
Overview
Technical Information
Sampling
Questionnaires
Data collection
Technical documents
Datasets
Access policy
Request microdata
Data Files
World_Bank_031612_IN D
Variable Search
Metadata in XML

Beginning November 27th, it will be possible to download and analyze the raw microdata ... users will be able to cut the data in millions of different ways and answer very specific questions.



www.worldbank.org/globalfindex



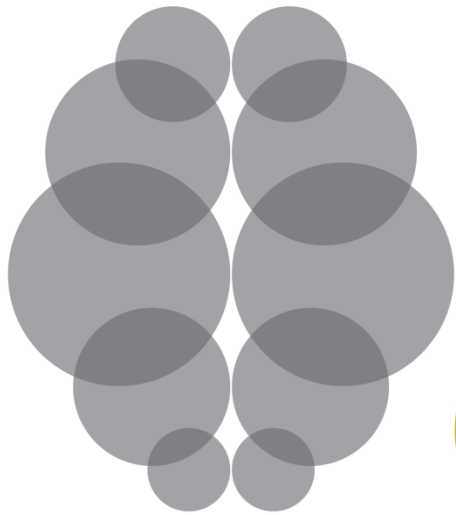


IFC Workshop on Financial Inclusion Indicators
Co-hosted by Bank Negara Malaysia
5 – 6 Nov 2012, Sasana Kijang, Kuala Lumpur

**Collecting financial inclusion information from the supply side:
the Colombian case¹**

Ana Maria Garcia, Alliance for Financial Inclusion

¹ This presentation 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.



afi Alliance for
Financial Inclusion

Bringing Smart Policies to Life

Ms. Ana Maria GARCIA

Collecting FI information from the supply side: The Colombian case

Workshop on Financial Inclusion Indicators

Kuala Lumpur, Malaysia

November 5, 2012

Colombia at a glance

- **Region:** Latin America
- **Adult population (18+):** 30 million
- **GDP:** US\$ 328 billion (2011)
- **GDP per capita:** US\$ 7.114 (2011)
- **GINI:** 55.9 (2010)

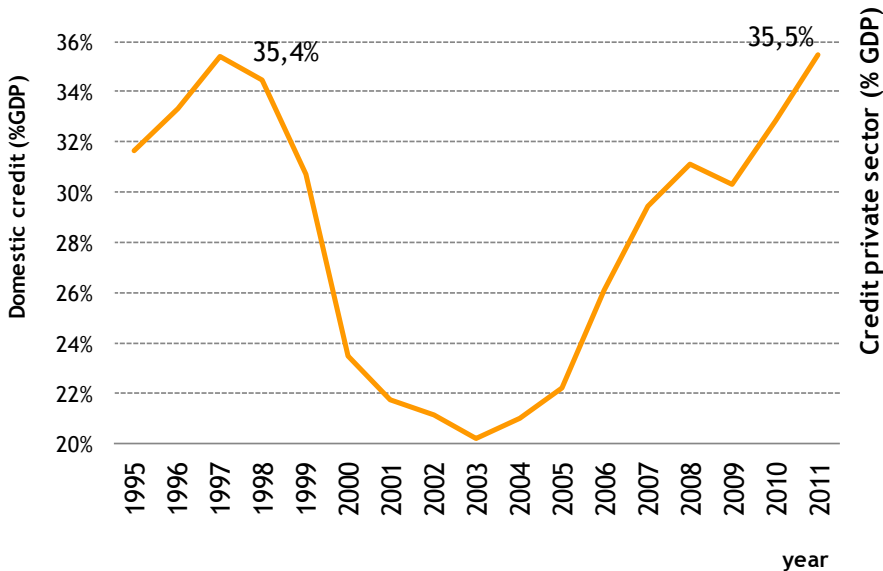


**Ministerio de Hacienda
y Crédito Público**
República de Colombia

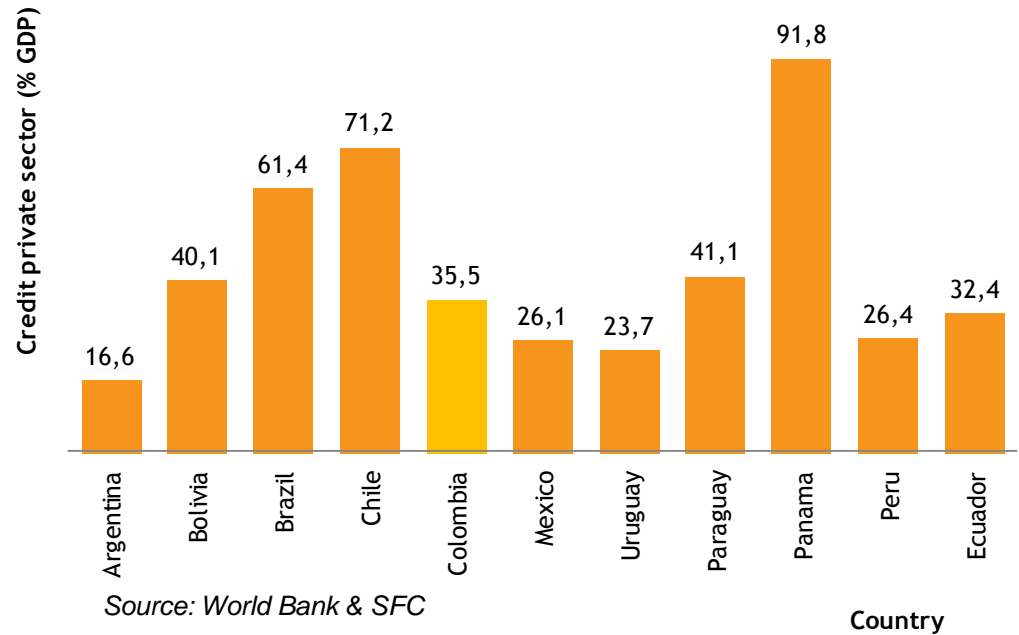


Source: IMF, World Bank, DANE, Wikipedia (image)

Colombia has recovered the financial deepening after the 1998 crisis, but it still remains below the regional average level.



Source: Financial Superintendency of Colombia - SFC



Source: World Bank & SFC

To establish base line in order to measure the progress the financial inclusion in Colombia.

- To identify the underserved → geographically and by segment of population



- To promote the design of policies based on evidences.
- To monitor the status of financial inclusion in the country and measure the impact of new policies.

- **Agent banking:** The SFC authorized credit institutions to offer their product and services through a third party.
- **Microcredit:** Agreements with banking sector to provide microcredits to people without previous access to financial system.
- **Basic Savings accounts:** with two withdrawals and one balance inquiry cost free per month, no minimum balance required and with simplified KYC requirements.
- **Simplified process for opening saving accounts:** just one per person and with some requirements on the balance per month.
- **Mobile Financial Services:** SFC allowed to operate agent banking and basic savings through all electronic devices as cell phones.

Main criteria

- I. Use previous experiences and definitions – FIDWG core set and members knowledge



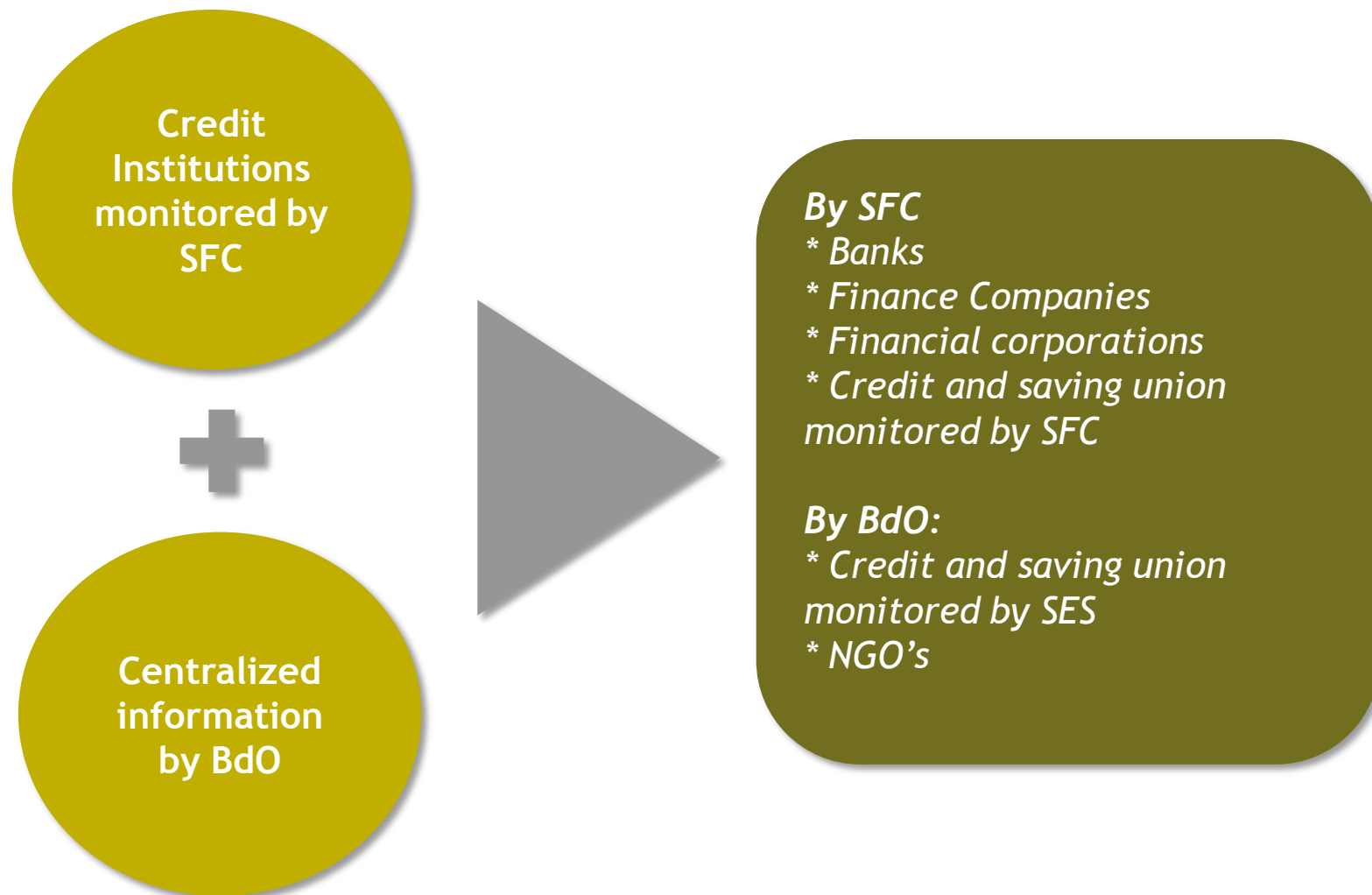
- II. Use the current data

- III. Coordination between governmental institutions



Banca de las Oportunidades (BdO)
+
Superfinanciera (SFC)

Institutions included on the report



Access:

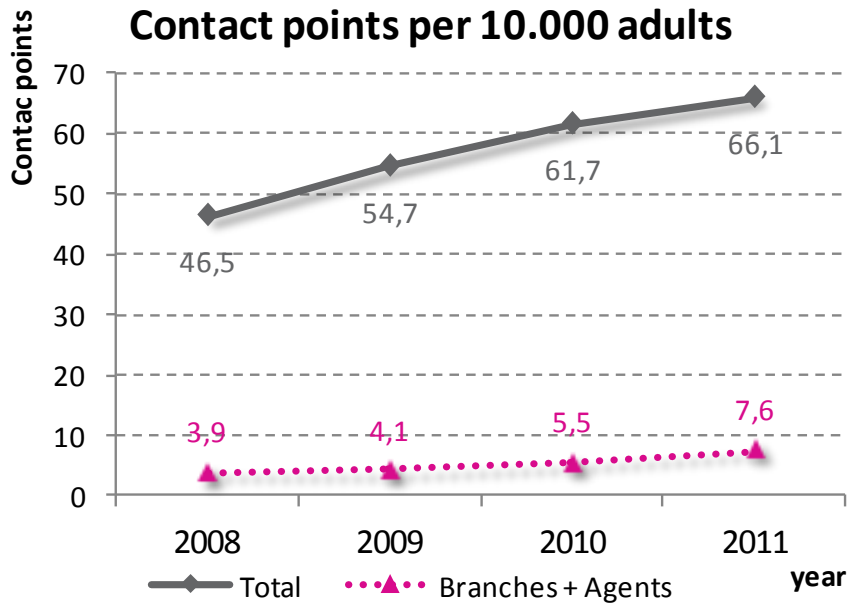
1. Contact points per 10.000 adults
2. Contact points per 1.000 km²
3. Presence per municipality.

Use:

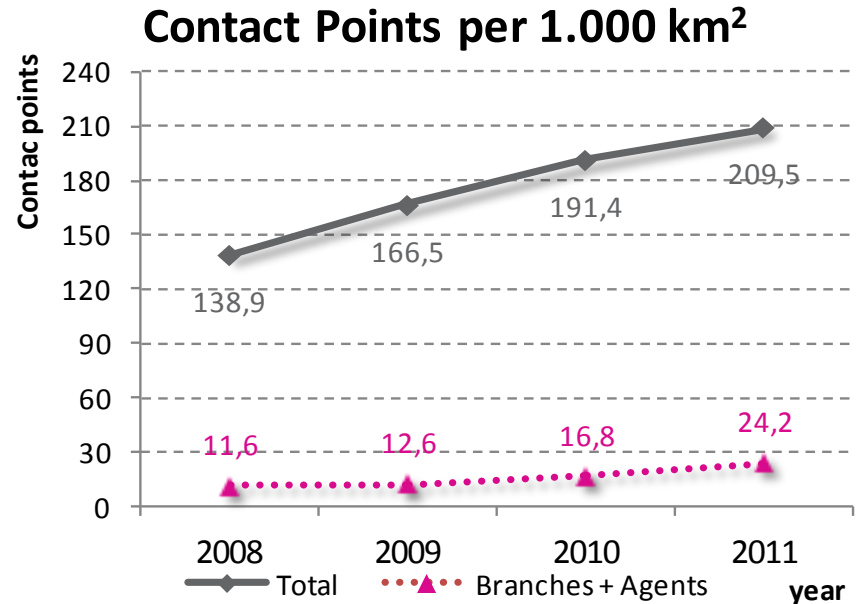
1. % adults with at least a financial product
2. Saving accounts per 10.000 adults
3. % dormant accounts
4. Accounts per balance
5. Adults with a credit account
6. Adults with credit card
7. Transactions per channel

Dimension: ACCESS

The number of contact points has increased, mostly on those who can perform cash-in and cash-out operations

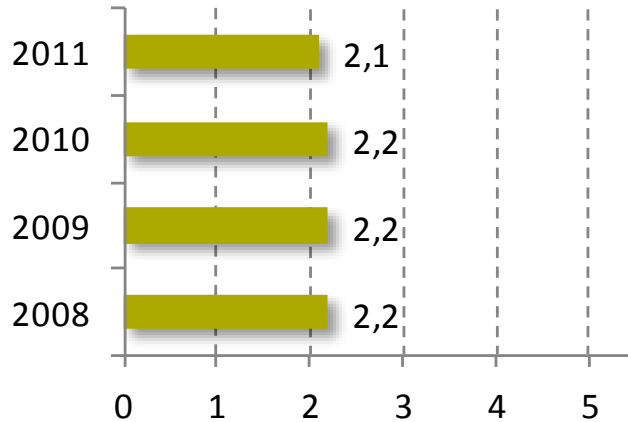


Source: BdO, SFC

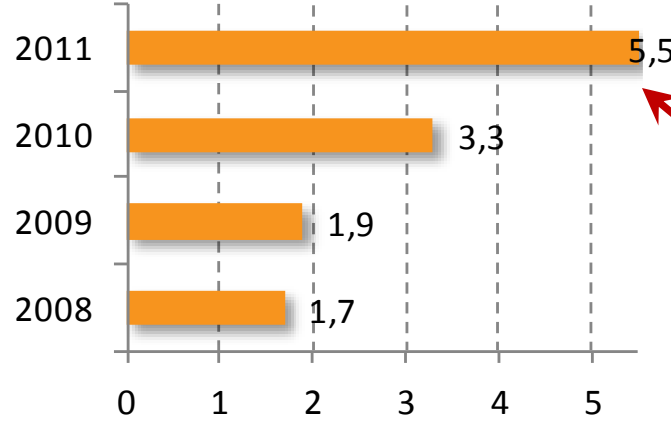


CP per 10.000 adults

Branches

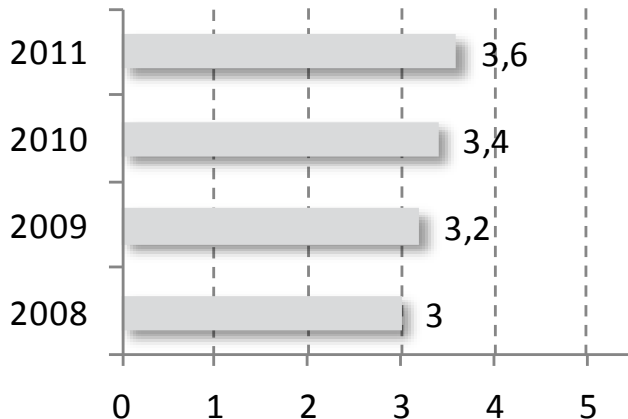


Agent Banking

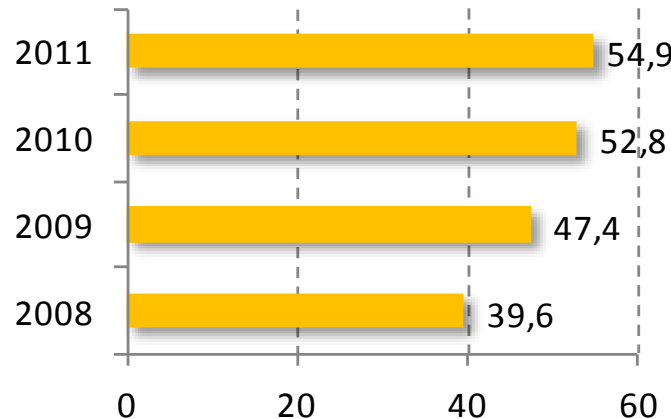


Agents provide financial services in places with difficult access and include self-excluded people

ATM



POS



Source: BdO, SFC

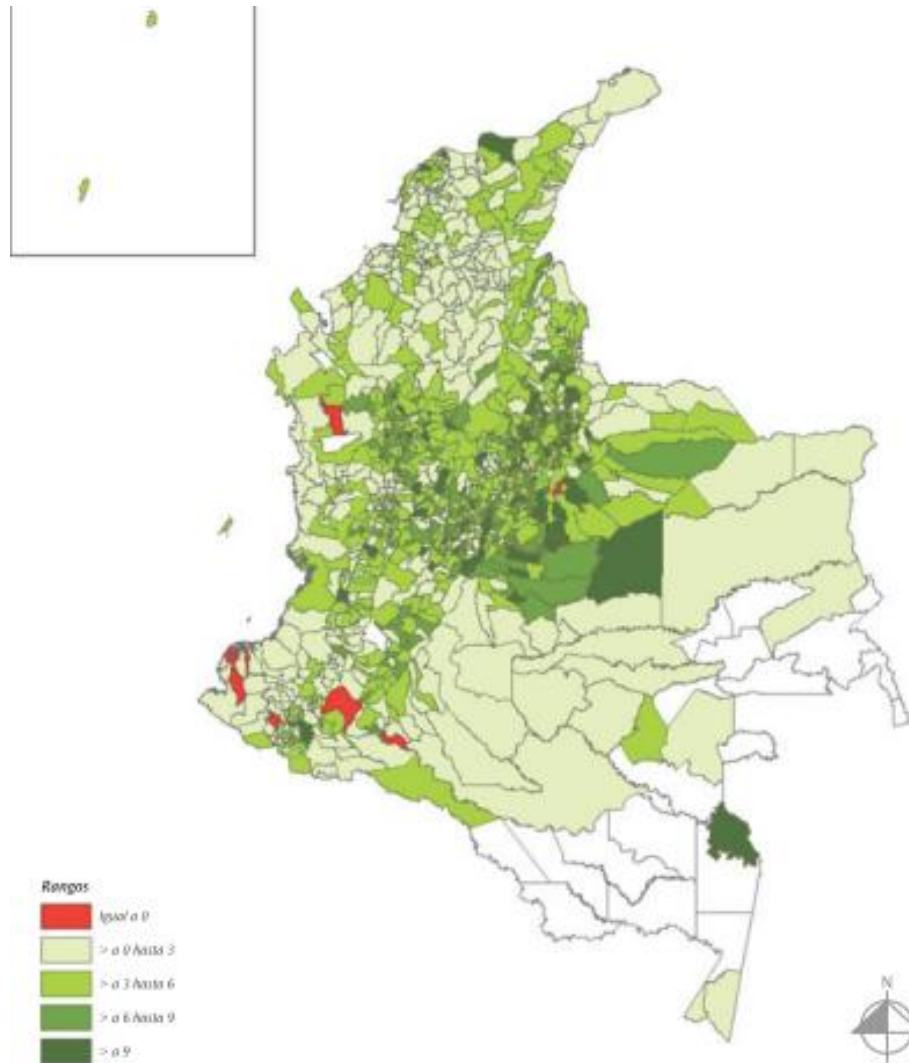
Per population in municipalities

Number of municipalities

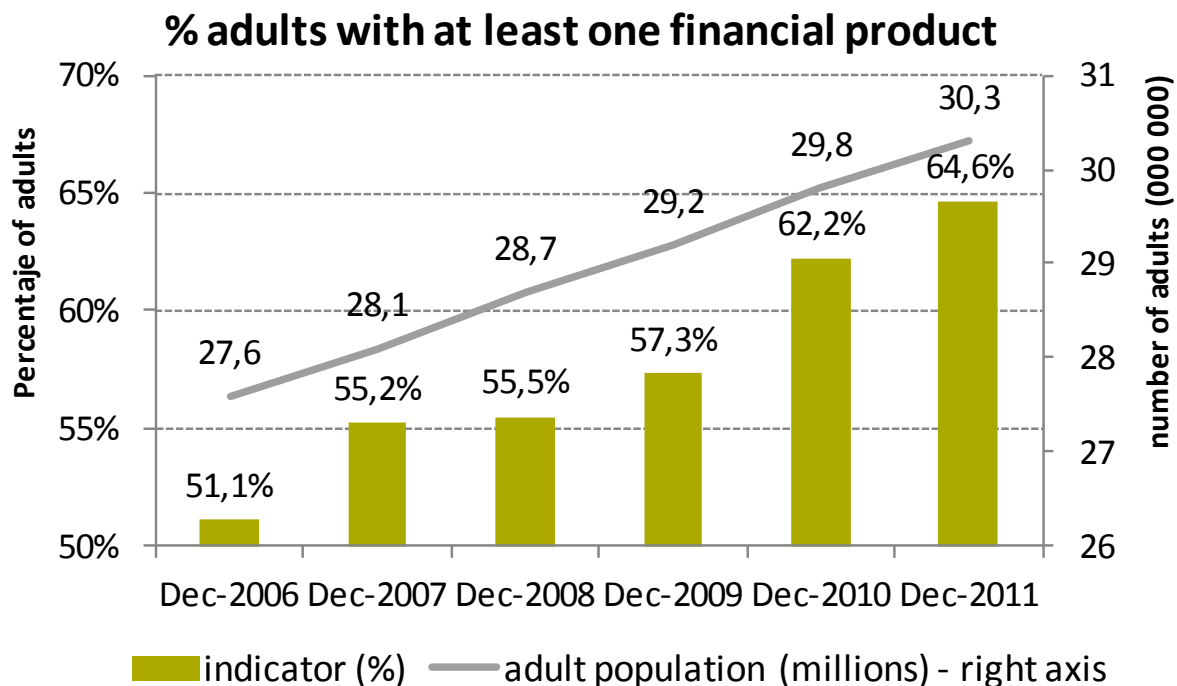
2008				
Size of the population	Without coverage	Just branches	Just Agents	Branches and agents
until 10.000 inhabitants	57	167	133	67
10.001 - 50.000 inhabitants	12	174	83	293
50.001 - 100.000 inhabitants	1	2	1	53
Más de 100.000 inhabitants	0	0	2	57
Total	70	343	219	470
2011				
Size of the population	without coverage	Just branches	Just Agents	Branches and agents
until 10.000 inhabitants	5	83	176	158
10.001 - 50.000 inhabitants	6	89	84	380
50.001 - 100.000 inhabitants	0	1	1	58
Más de 100.000 inhabitants	0	0	0	61
Total	11	173	261	657

Source: BdO, SFC

Municipalities and contact point



USAGE - Deposits



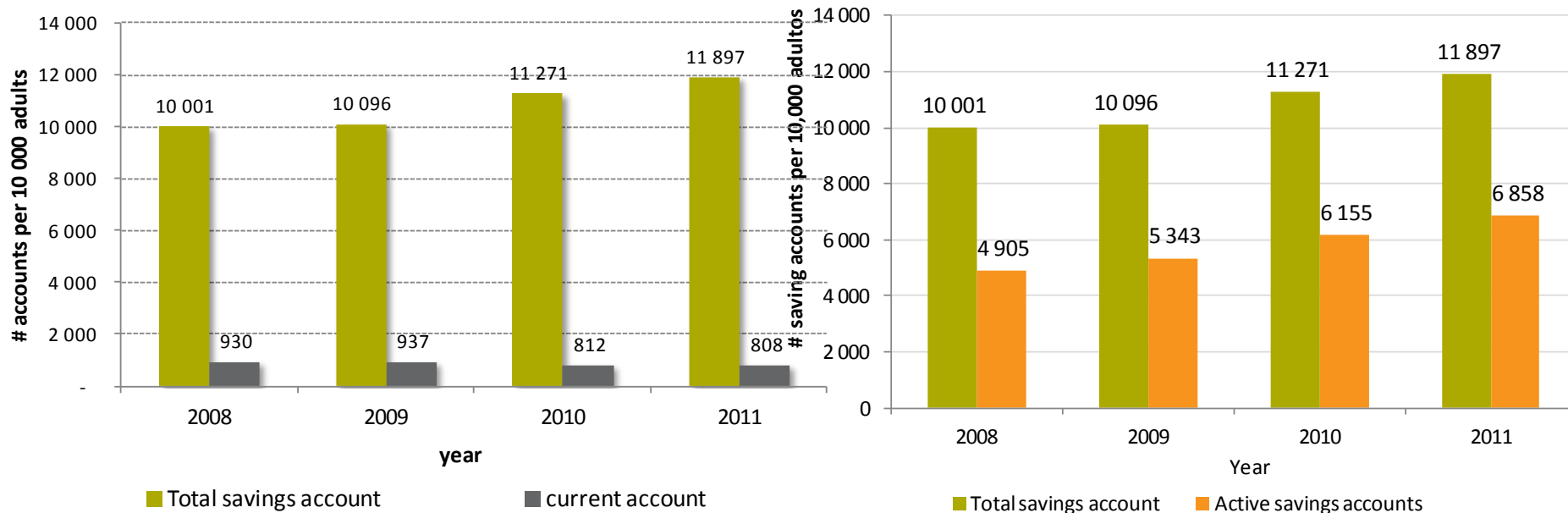
The growth rate of last years is based on the number of basic saving accounts which are mainly used to deliver CCT programs.

Product	Adults IDs (millions)					
	Dic-2006	Dic-2007	Dic-2008	Dic-2009	Dic-2010	Dic-2011
Saving accounts	13	15	15	16	17	19
Current accounts	1,4	1,5	1,5	1,3	1,4	1,5

Source: Colombian Banking Association – Asobancaria –

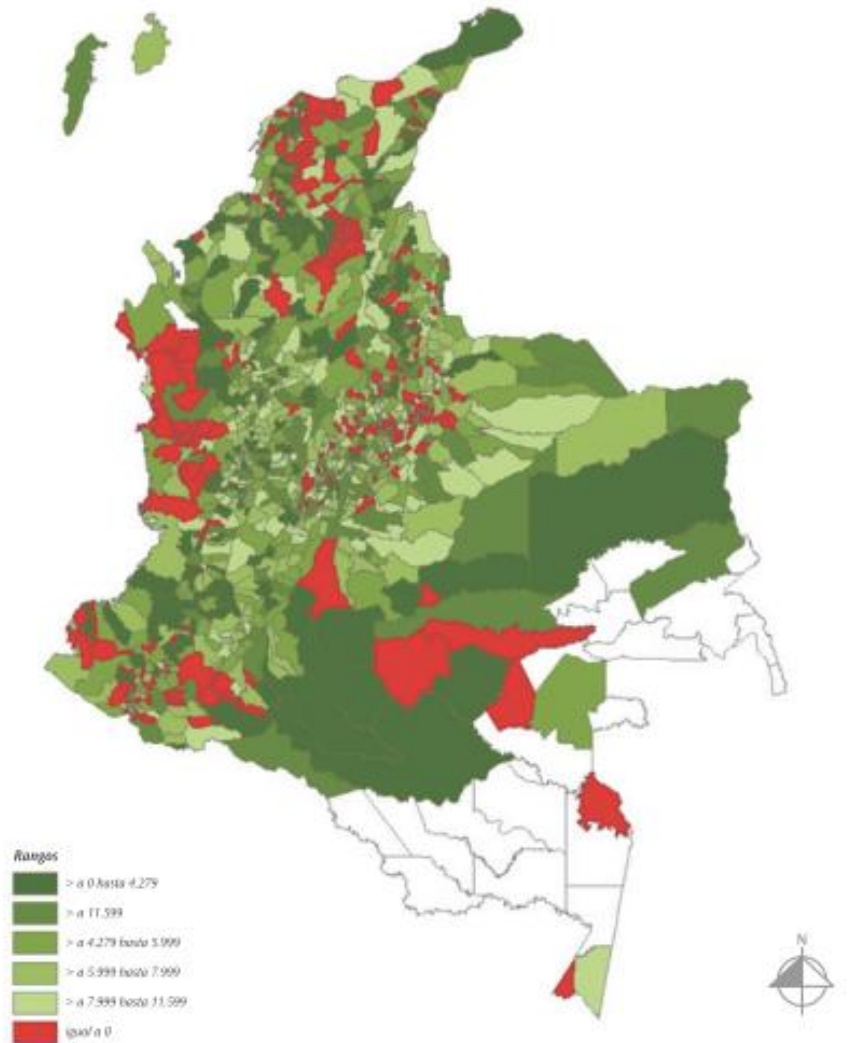
Even though the number of accounts per 10.000 adults has increased, the number of dormant accounts are still significant

Number of accounts per 10.000 adults



Source: BdO, SFC

Savings accounts per 10.000 adults



Source: BdO, SFC

Indicators on credits showed an improvement during the last four years, microcredit presented an impressive growing path.

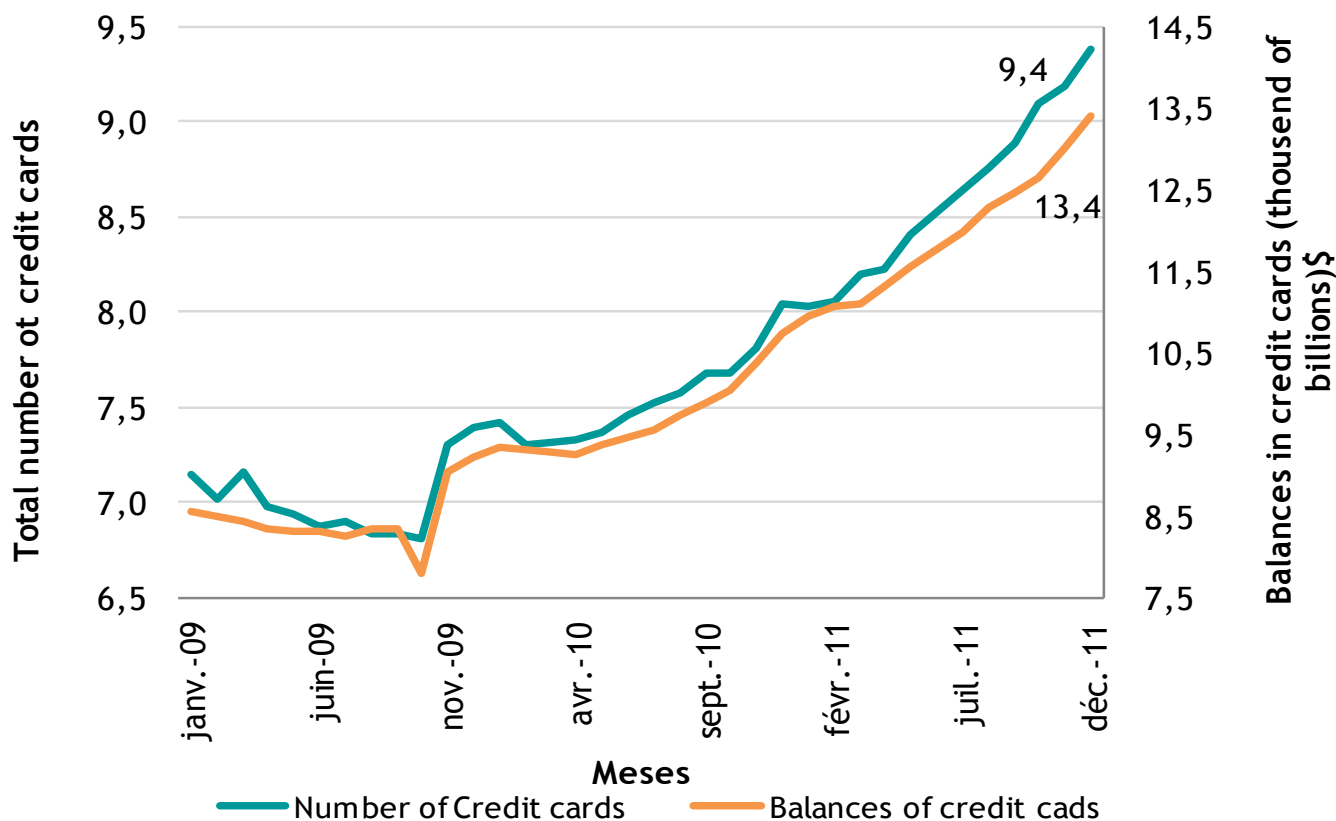
Product	Adults IDs (millions)					
	Dic-2006	Dic-2007	Dic-2008	Dic-2009	Dic-2010	Dic-2011
Consumer	2,7	3,7	4,3	3,6	4,1	4,3
Housing	0,5	0,5	0,6	0,6	0,7	0,7
Microcredit	0,5	0,6	0,7	1,1	1,2	1,5
Credit cards	3,3	3,7	3,9	4,7	5,2	5,5

Product	Adults IDs (millions)					
	Dic-2006	Dic-2007	Dic-2008	Dic-2009	Dic-2010	Dic-2011
Consumer	10%	13%	15%	12%	14%	14%
Housing	2%	2%	2%	2%	2%	2%
Microcredit	2%	2%	2%	4%	4%	5%
Credit cards	12%	13%	14%	16%	17%	18%

Source: Colombian Banking Association – Asobancaria –

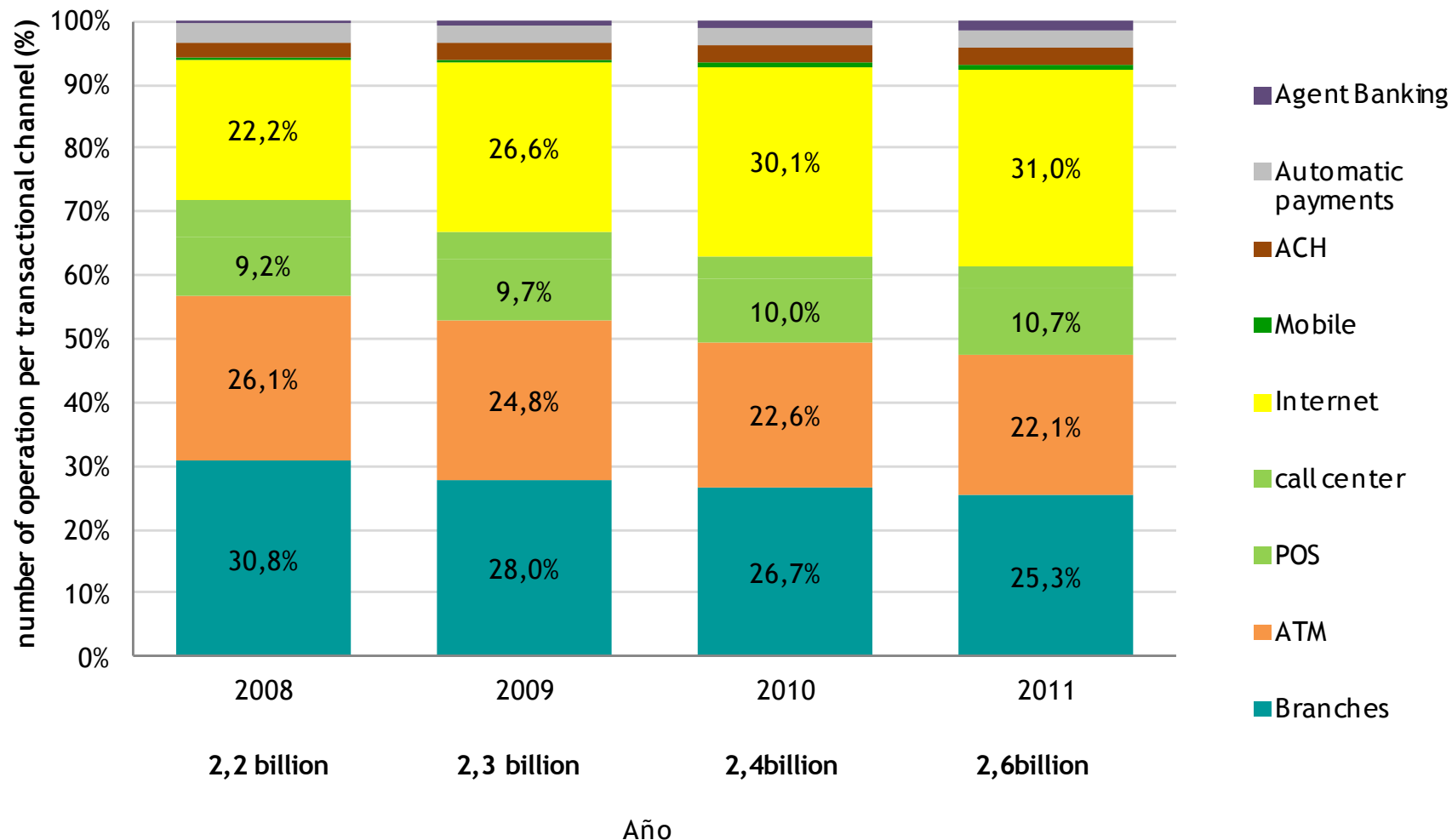
USAGE – Credits cards

The growing rate on credit cards balances it is due to the use as replacement of credits for consumer purposes.



Source: SFC

USAGE – Transactions per channel



Source: BdO, SFC

- Financial literacy and consumer protection indicators (as for example number of complains).
- Finding the optimums point between collection data by municipality with this purpose.
- Indicators for MFS

- In terms of financial inclusion
 - Usage of financial products and services is crucial → design of correct products, financial literacy and consumer protection
 - Small municipalities, rural areas are places with major number of dormant accounts.
- In terms of report:
 - Cooperation is really important
 - There is no necessity of invent the wheel (FIDWG don it and it is doing it)
 - For policymakers, the support on this kind of strategies is important.

Thank you!





Irving Fisher Committee on
Central Bank Statistics

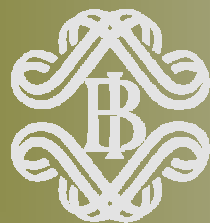
BANK FOR INTERNATIONAL SETTLEMENTS

IFC Workshop on Financial Inclusion Indicators
Co-hosted by Bank Negara Malaysia
5 – 6 Nov 2012, Sasana Kijang, Kuala Lumpur

What can household surveys tell us? The Bank of Italy's experience¹

Claudia Biancotti, Bank of Italy

¹ This presentation 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.



BANCA D'ITALIA

EUROSISTEMA

**What can household surveys tell us?
The Bank of Italy's experience**

Claudia Biancotti

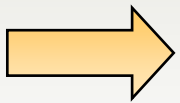
Bank of Italy

Economic and Financial Statistics Department

**Workshop on Financial Inclusion Indicators
IFC and Bank Negara Malaysia, Kuala Lumpur
November 5, 2012**

Why should we have household surveys?

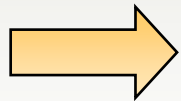
- **What's the value added of HH surveys compared to other sources?**
 - **distributional** information;
 - in multipurpose surveys, evidence on **correlations** (demographic characteristics / economic behavior etc.)



This type of information is crucial whenever a policy-relevant issue can be properly understood only by looking at specific subpopulations. Example: if the general average of the debt-to-income ratio is high we could be looking at a healthy economy with good access to credit, but also at a situation where creditworthiness of some subgroups is overestimated.

Household surveys and financial inclusion

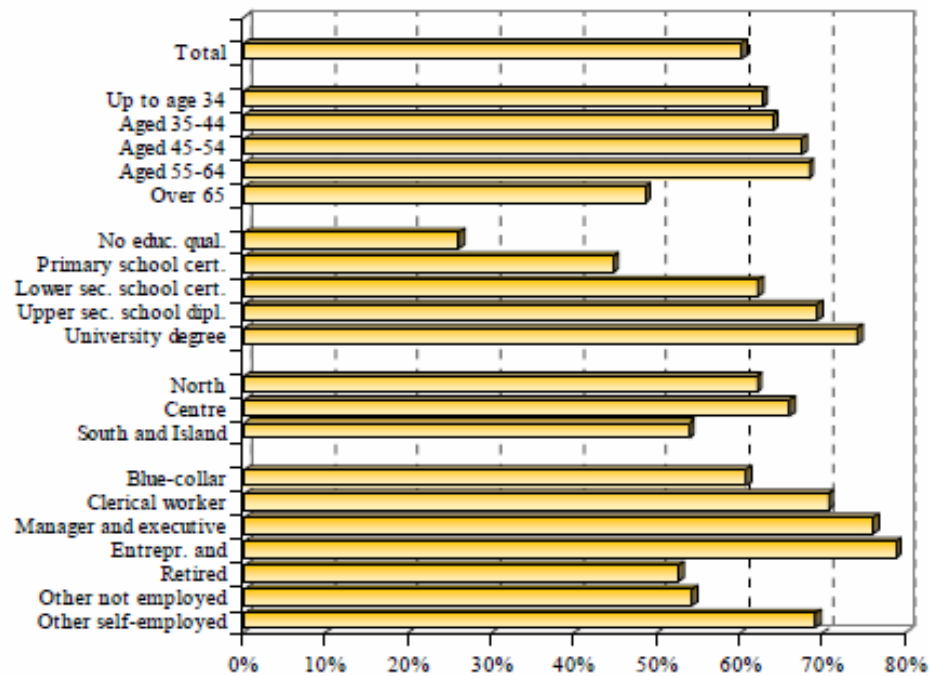
- **Surveys on household wealth now widely recognized as policy-relevant** (ECB HFCS, OECD handbook on micro-level measurement of wealth, LWS expanding to cover middle-income countries etc.)
- **Highly detailed information from different perspectives** (*de facto* access to various segments of financial markets, including informal ones; understanding of instruments; perceptions)



Examples: financial instruments held by households (from sight accounts to complex derivatives); experienced and perceived credit constraints; availability of informal credit from friends and relatives; financial literacy

Example I: financial literacy, 2010

Italian households' financial knowledge
according to the characteristics of the head of household
(per cent of correct answers)



Example II: sociodemographic characteristics and risk appetite

Ownership of risky financial assets by characteristics of head of household^(*)
(per cent)

	2000	2002	2004	2006	2008	2010
Work status						
Employee						
blue-collar worker	13.0	10.9	7.4	8.5	5.2	5.0
clerical worker.....	29.1	27.7	22.2	21.5	21.9	20.0
manager, executive	42.3	44.6	38.8	41.7	39.5	37.7
total.....	23.2	21.8	16.8	17.5	15.0	14.3
Self-employed						
entrepreneur, professional.....	38.1	44.5	33.7	27.9	34.7	36.0
other	25.2	25.8	20.3	17.3	18.8	18.4
total.....	29.3	32.1	24.9	20.7	24.3	25.8
Not employed						
pensioner	15.2	15.4	14.9	13.2	12.0	14.8
other	6.3	4.4	3.8	5.9	3.5	6.0
total	14.4	14.5	14.1	12.7	11.5	14.1
Educational qualification						
none	18.6	13.5	7.0	7.3	13.1	7.0
primary school certificate	23.8	21.1	17.0	16.8	11.5	11.0
lower secondary school certificate	23.5	24.5	18.7	20.5	17.3	16.1
upper secondary school certificate	25.1	26.9	23.3	19.1	19.8	23.3
university degree	12.0	12.3	12.0	11.4	11.1	13.3
Household income quintile						
1st quintile	3.1	0.5	0.5	1.8	1.1	1.8
2nd quintile	8.5	6.2	4.4	6.6	5.5	5.5
3rd quintile.....	21.0	18.8	14.1	12.3	9.7	12.1
4th quintile	33.6	32.3	25.3	21.6	18.4	17.7
5th quintile.....	51.3	48.4	38.1	37.5	38.9	41.7
Total	20.4	20.3	16.8	16.0	14.7	15.8

(*) Bonds, shares, investment funds, individually managed portfolios and foreign securities. Individual characteristics refer to the head of the household, i.e. the member with the highest income.

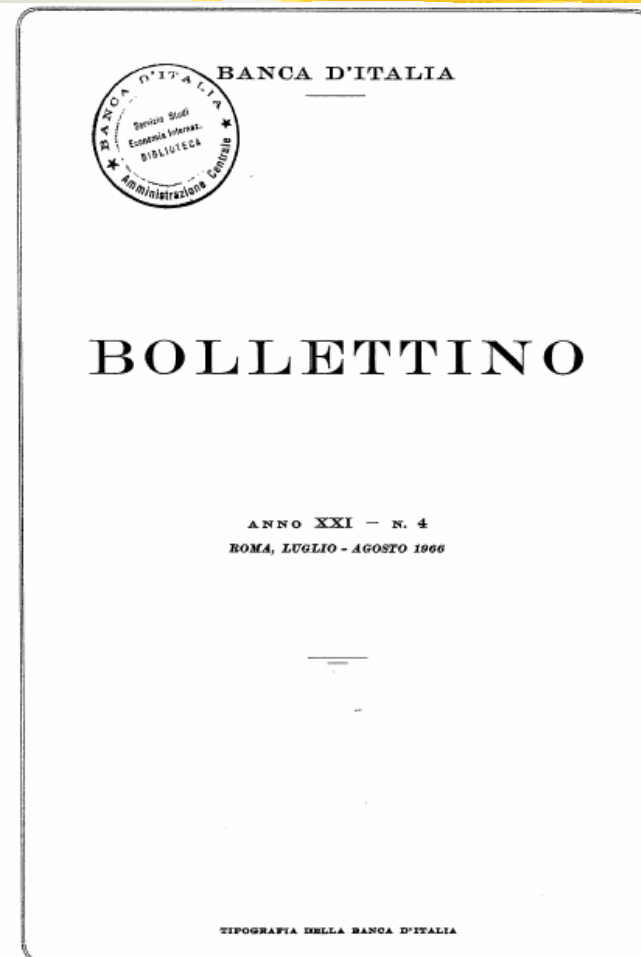
The Survey on Household Income and Wealth (SHIW), 1966

1966: First Report on Household Income, Savings and Consumption

Main topics of the Report (14 pages)

- Income distribution (concentration, employees vs self-employed)
- Durables (expenses for radios, grammophones, sewing machines...)
- How were the durables paid (consumer credit)?
- Home ownership (about 50%)

The report described a nation that was still relatively poor: the rapid pace of post-WWII economic growth implied widespread access to “new” consumer goods, such as cars and television sets, but retail financial markets were not developed. Sight accounts and government bonds were the only instruments known to the majority of the population. Credit to the increasing number of small businesses was generally extended by local banks on a near-informal basis.



Spedizione in abbonamento postale — Gruppo IV - Bimestrale

The Survey on Household Income and Wealth (SHIW), 2012

2012: most current report on Household Income and Wealth (data on 2010)

Main topics of the Report (142 pages)

- Household structure (demographic profile)
- Income distribution (concentration, employees vs self-employed)
- Retirement age (expectations and realizations)
- Home ownership (approximately 80%)
- **Wealth (concentration, prices)**
- **Financial Assets (portfolio choices, risk aversion)**
- Payment instruments

All in all, the survey has always aimed at collecting data on the economic resources acquired, consumed or held but Italian society has changed a lot since then, and the survey too

Participation in the financial markets is one of the relatively new phenomena, requiring increasing attention



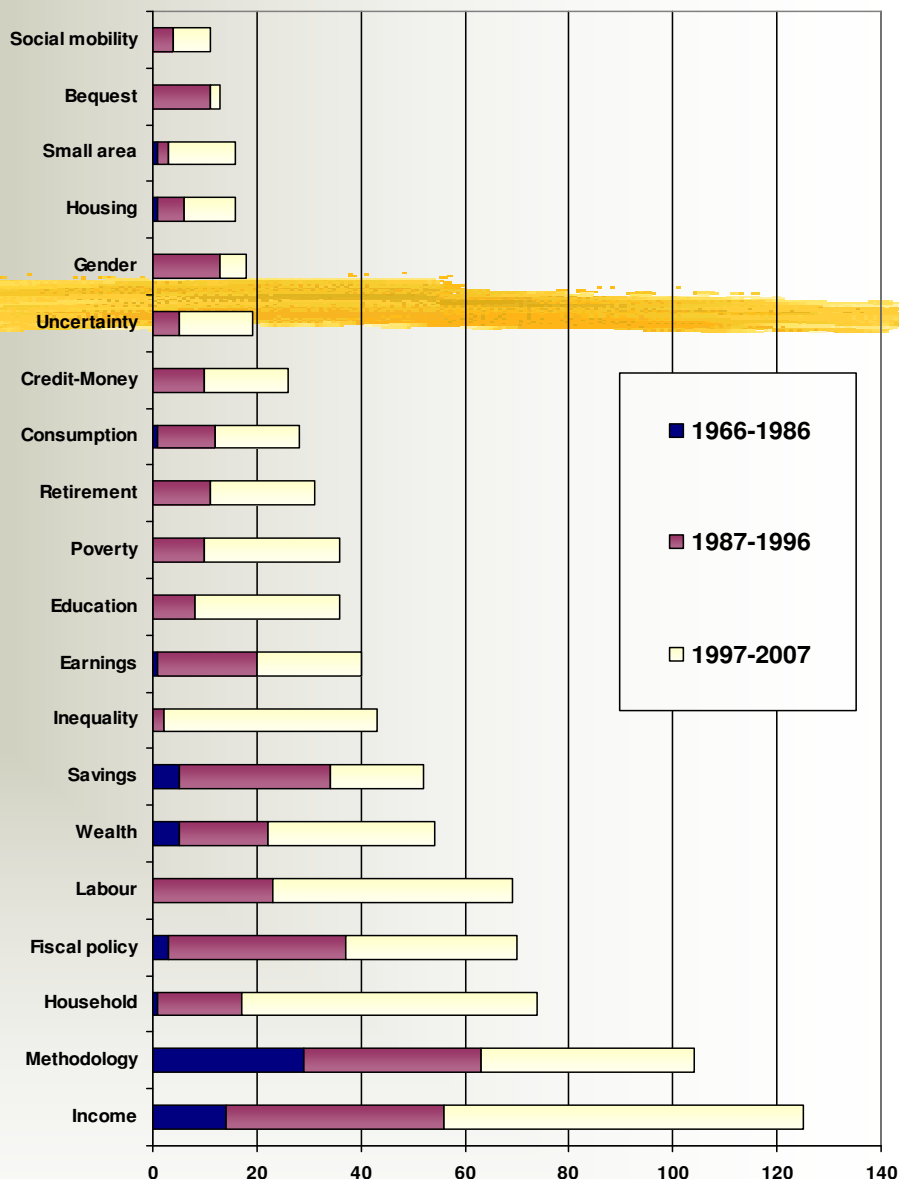
Use and users of the SHIW

- Policy-relevant research projects
- Simulation of the impact of policy choices
- Financial and wealth accounts
- Academic research

→ BI researchers, decision-makers and academics

• The Report usually becomes an important reference for the domestic political debate on the economic conditions of households

→ also the press and the general public



Bibliography of SHIW-based papers (October 2012):

Approximately 750 papers; slightly less than 30% by Bank of Italy researchers

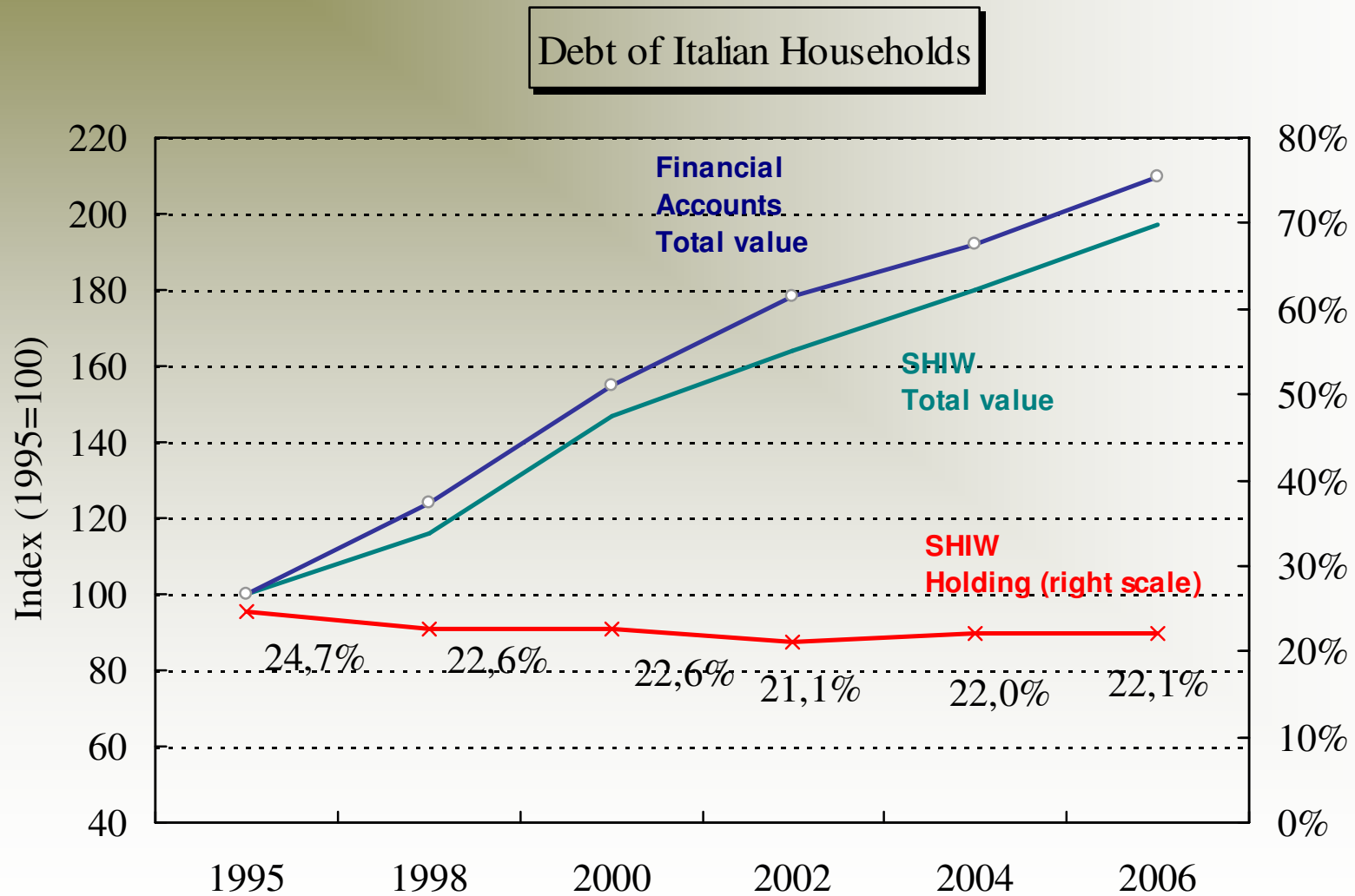
Main features of the SHIW

- Since 1966 (yearly up to 1986; since 1987 **every two years**; will revert to being yearly in 2013!)
- Sample of **8.000 households** (about 20.000 individuals)
- **Two-stage stratified sample design** (municipalities, households)
- Stratification of municipalities; post-stratification of households
- **Panel** component (about 40 per cent) since 1989
- Face to face interview (use of CAPI)
- Micro data freely available on the Internet (data from 1977 on)
- Part of the **Eurosystem HFCS**

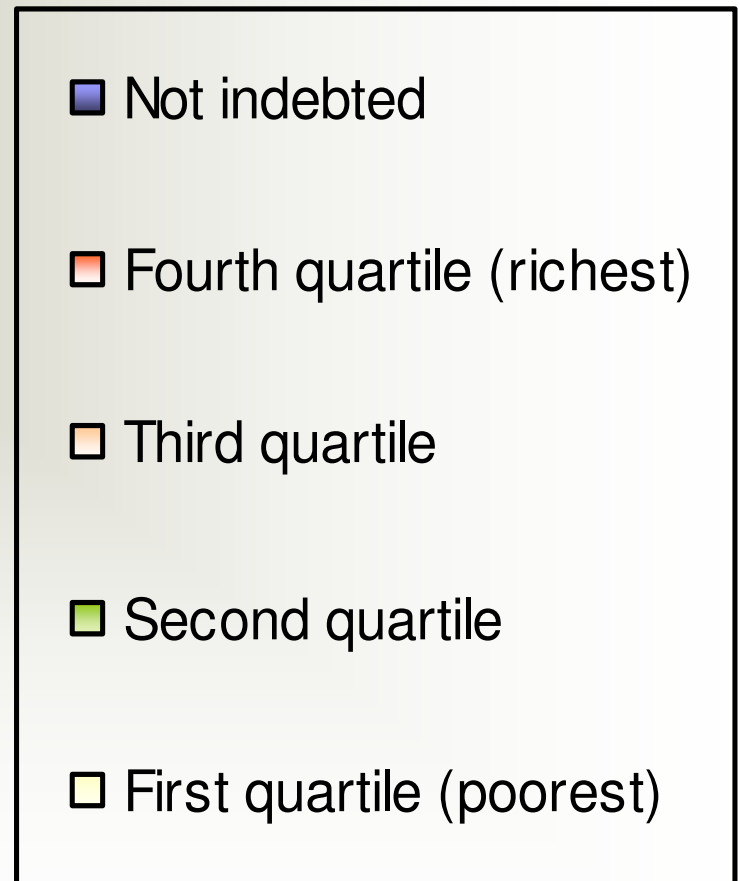
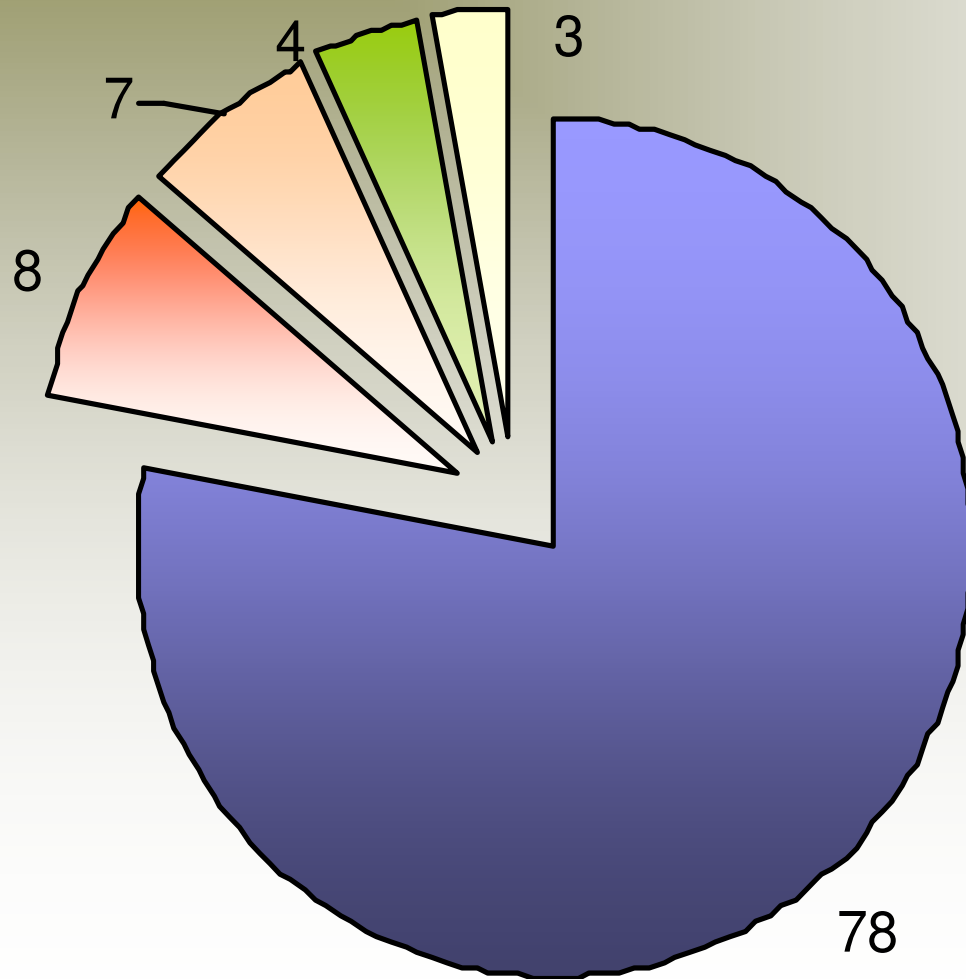
The questionnaire: permanent sections

- A. Structure of the household at the end of the year (size; gender, age, education, place of birth, citizenship of each member, ..)
- B. Employment and incomes (job status, hours worked, wages, income from self-employment, pensions)
- C. Payment instruments and forms of saving (current accounts, credit cards, checks, financial instruments held,)**
- D. Principal residence and other property (tenure status, value, rent paid/collected, size, location, ...)
- E. Non-durable and durable consumer goods (annual expenses for non-durable goods; expenses for cars, furniture...)
- F. Forms of insurance
- G. Assessment of the interview (to be provided by the interviewer)

Example III: aggregate dynamics...



...and distributional facts (2006)



A sketch of the possibilities

- Ad hoc sections of the questionnaire providing further information:

Capital gains, inheritances, risk aversion, housework, intergenerational mobility, use of public services, social capital, tax evasion, income and employment expectations, retirement expectations, financial choices, use of new technologies....

- Studying financial inclusion:

- How many financially vulnerable households are there? Who and where are they?
- How does the poorest segment of the population fare with respect to access to credit, value of debt, debt-to-income ratio, financial literacy?
- Is there any difference in attitudes to saving and risk between subpopulations with a good understanding of financial issues and the rest? What's the feedback on income?
- Example: recent changes in the pension system. Who is prepared and who is not? How does the increasing relevance of private pensions affect inequality?

Example IV: financial vulnerability, 2010

Financial vulnerability of households (per cent; euro)

Household income	Proportion of indebted households(*)	Average annual debt service	Proportion of vulnerable households(**)	Indebted households only: total annual debt service and household income(***)				
				Median debt service	Median ratio of debt service to income (****)	Mean debt service	Mean ratio of debt service to income (*****)	Proportion of vulnerable households
1 st quintile.....	11.1	338	4.2	2,400	23.2	3,043	45.0	37.9
2 nd quintile	16.8	619	2.9	3,000	14.0	3,693	16.9	17.0
3 rd quintile	22.0	1,093	2.7	4,000	14.6	4,970	16.6	12.1
4 th quintile	28.7	1,641	1.5	5,000	13.0	5,726	14.0	5.3
5 th quintile	28.8	2,183	0.6	6,000	9.3	7,584	11.8	2.2
Total	21.5	1,175	2.4	4,250	12.4	5,474	17.4	11.1

(*) Excludes households with only business debt, current account overdrafts and credit card debt. (**) "Vulnerable" households are those whose total annual debt service payment amounts to more than 30 per cent of their disposable income. (***) Household income gross of financial costs. (****) Median ratio of individual households' total annual debt service payment to income. (*****) Mean ratio of individual households' total annual debt service payment to income.

Example V: credit rationing

D35. Did the household contact a bank or financial company in 2010 with a view to obtaining a loan or mortgage?
 - Yes1
 - No2 → **Question D40 MUTUOR**

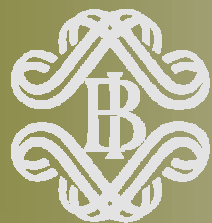
D36. (If "Yes") Was the request granted in full, granted in part or refused?
MUTUOE
 - granted in full1 → **End of Section**
 - granted in part2
 - refused3

D37. (If "granted in part" or "refused" to Question D36) What was the purpose of the loan you requested?
 - purchase of dwelling/property1
 - purchase of goods or various expenses2
 - business purposes3

D38. (If "granted in part" or "refused" to Question D36) What reason was given for the refusal (or partial refusal)?
MUTUORIF
 - no collateral (personal or real guarantees)1
 - report by the Central Credit Register2
 - other reasons3

D39. (If "granted in part" or "refused" to Question D36) Did your household later succeed in obtaining the amount needed, either from the same or from another financial intermediary?
REAPMUT€
 - Yes1
 - No2 } → **End of Section**

D40. (If "No" to Question D35) During 2010 did you or a member of the household consider applying for a mortgage or a loan from a bank or financial company but later change your mind because you thought the request would be refused?
 - Yes1 **MUTUORIC**
 - No2



BANCA D'ITALIA

EUROSISTEMA

Thank you for your attention!



IFC Workshop on Financial Inclusion Indicators
Co-hosted by Bank Negara Malaysia
5 – 6 Nov 2012, Sasana Kijang, Kuala Lumpur

Households' and firms' access to finance in the euro area¹

Aurel Schubert, European Central Bank

¹ This presentation 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.

**Households' and firms' access to
finance in the euro area:
On ne prête qu'aux riches?**

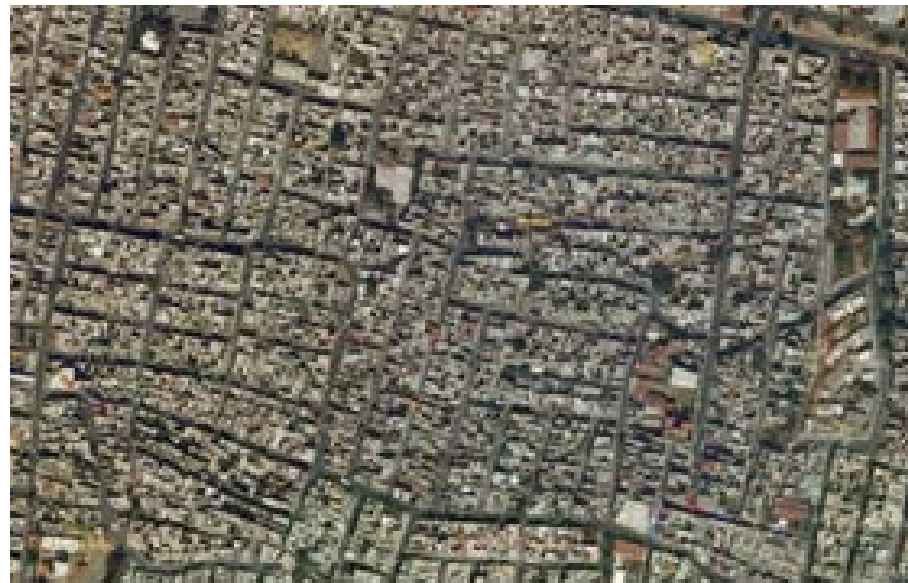
Aurel Schubert

European Central Bank

IFC Kuala Lumpur

2 November 2012

Wealth as seen from above



Wealth disparities are well known

- to what extent is it the same for access to finance?**

Outline of presentation

- 1. Households' view – the Eurosystem Household Finance and Consumption Survey (HFCS)**
- 2. Firms' view – the EC/ECB Survey on the access to finance of SMEs (SAFE)**

What is the HFCS?

Cross-country survey collecting micro-level data

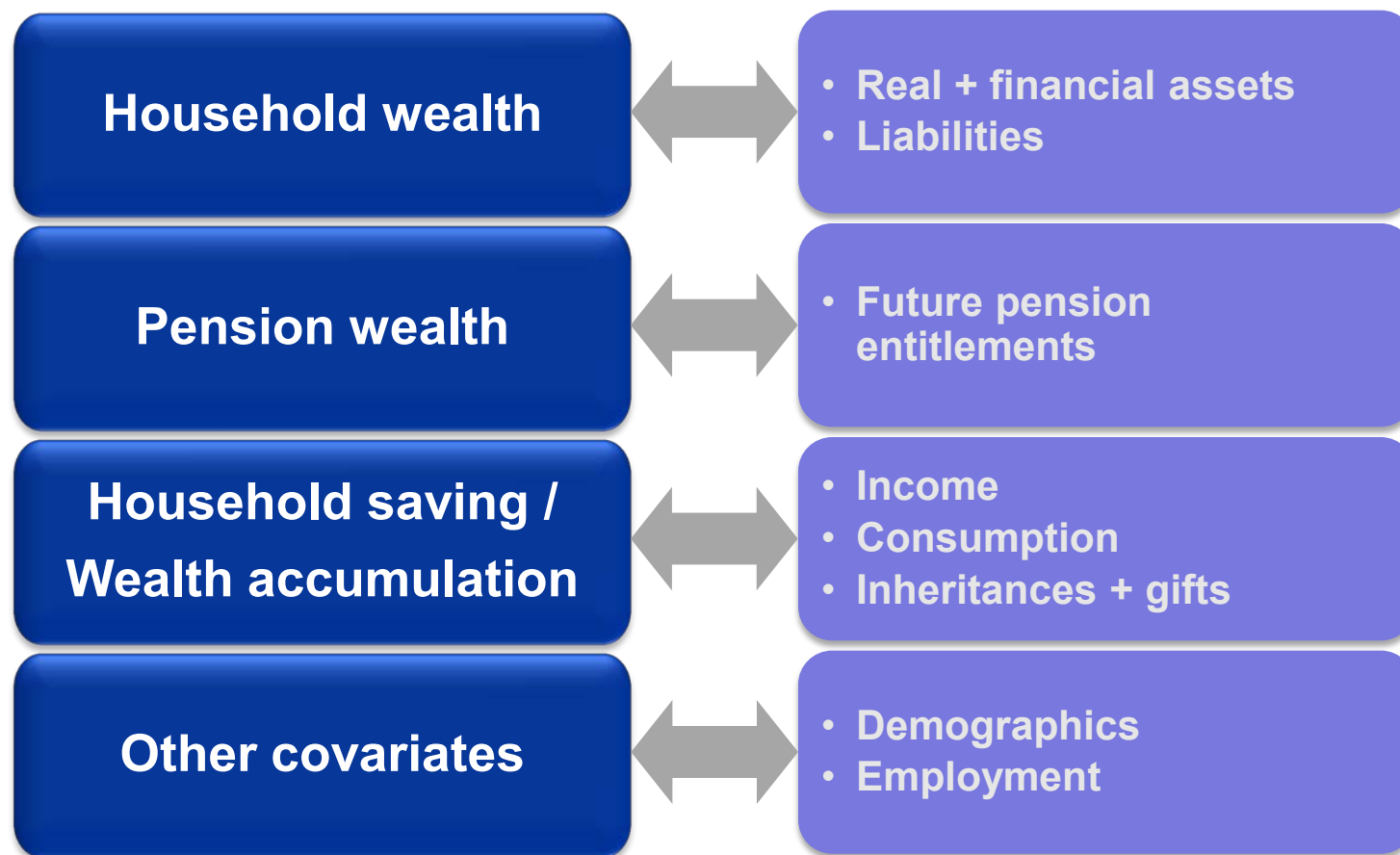
Focus = wealth (mostly)

Country and euro area representative

Ex-ante cross-country comparability

First wave close to finish

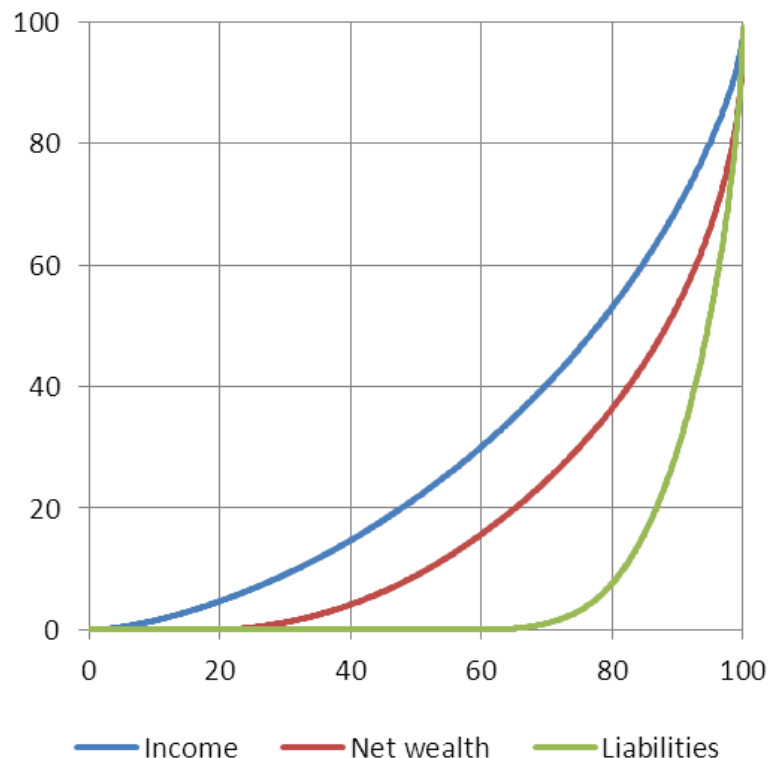
Areas covered by HFCS



Household wealth & debt

- **Strong skewness** wealth distribution
- **Few wealthy households**
→ **substantial** effects on aggregate statistics
- **Net wealth more unevenly distributed than income**
- **Liabilities even more unevenly distributed**

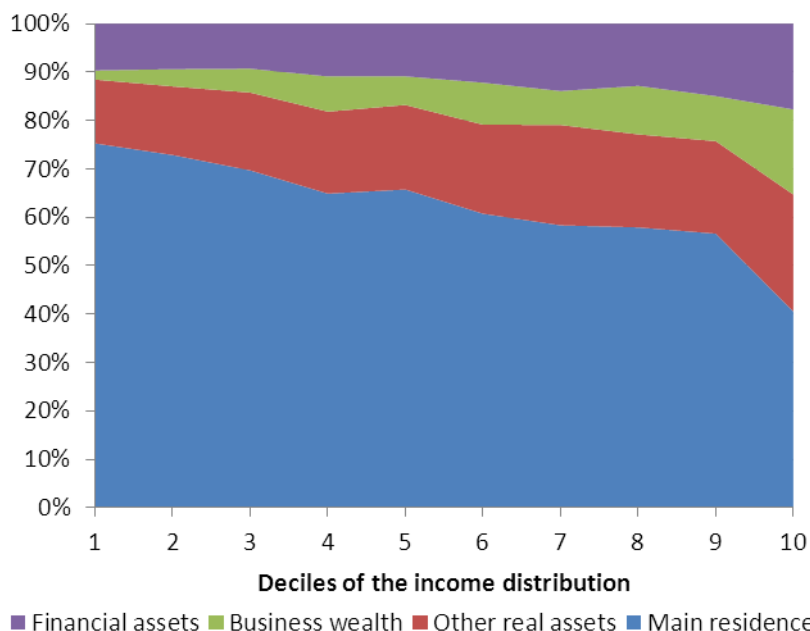
Lorenz curve of Income and Net Wealth



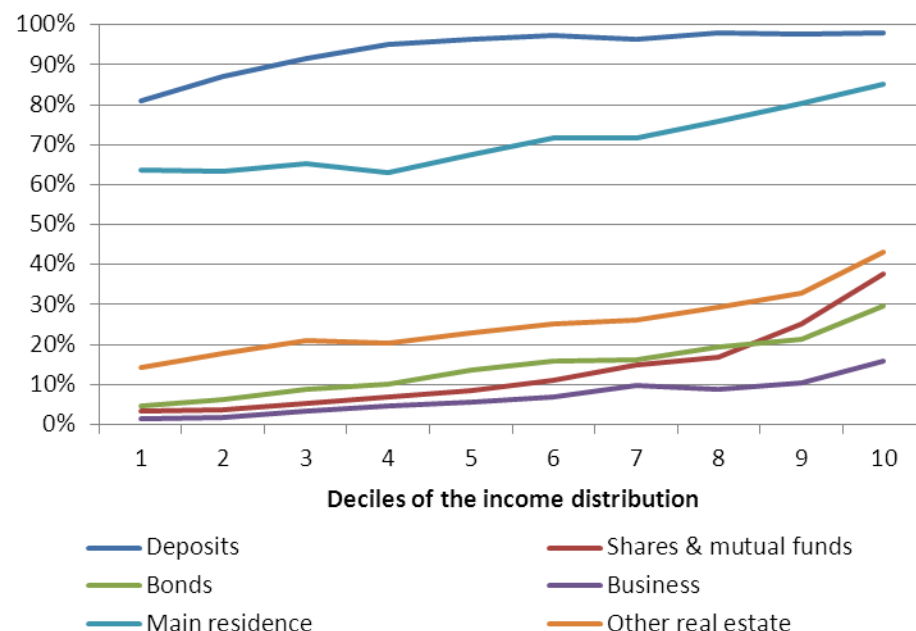
Source: Eurosystem HFCS, data for BE, ES, FI, IT, LU, MT, NL, AT, PT, SK

Household assets

Portfolio distribution: % of HH portfolios



Asset participation: % of HHs holding assets



Source: Eurosystem HFCS, data for BE, ES, FI, IT, LU, MT, NL, AT, PT, SK

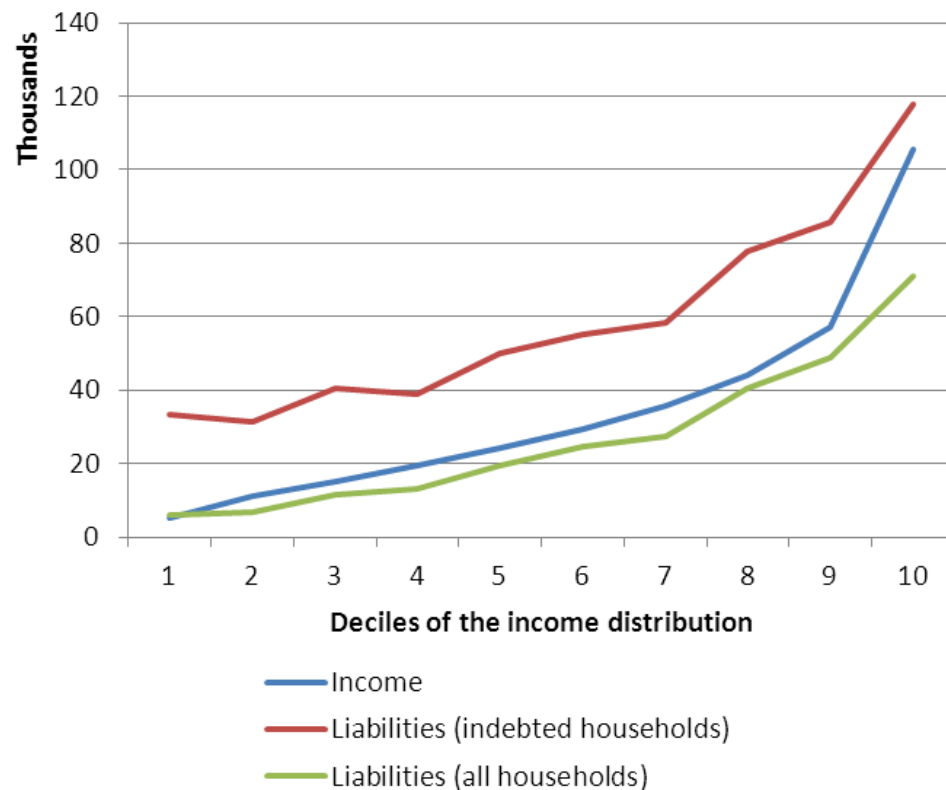
- **Main residence = largest asset**
- **(Portfolio distribution) Increasing importance of business wealth**
- **(Participation) highly dependent on income**
- **Financial assets: low prevalence excl. accounts, even amongst wealthy**

Income and liabilities

Focus on average household hides large heterogeneity

- financial commitments largely correlated with HH income
- Lower-income HHs
→ low access to credit

Household liabilities and income
(averages, EUR)

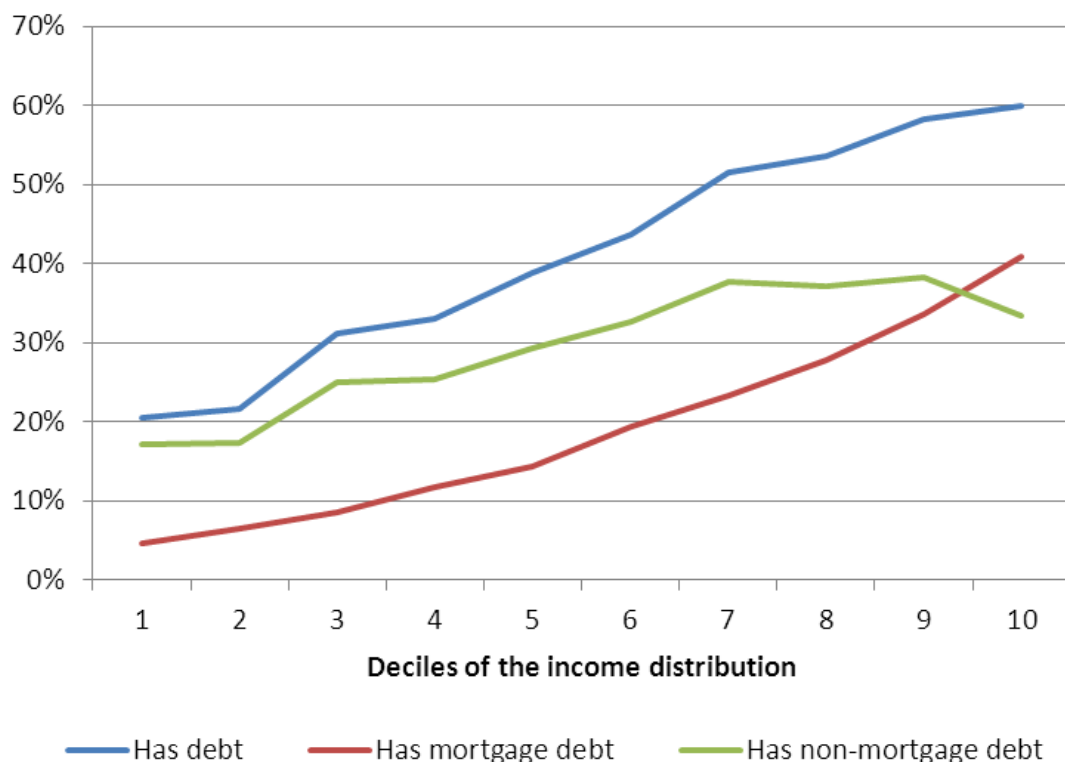


Source: Eurosystem HFCS, data for BE, ES, FI, IT, LU, MT, NL, AT, PT, SK

Household liabilities

- **Participation in debt finance highly dependent on income**
 - **More for mortgage than for non-collateralised debt**
- **Mortgage debt = bulk HH debt (~70-90%)**

Share of households having debts
% of households



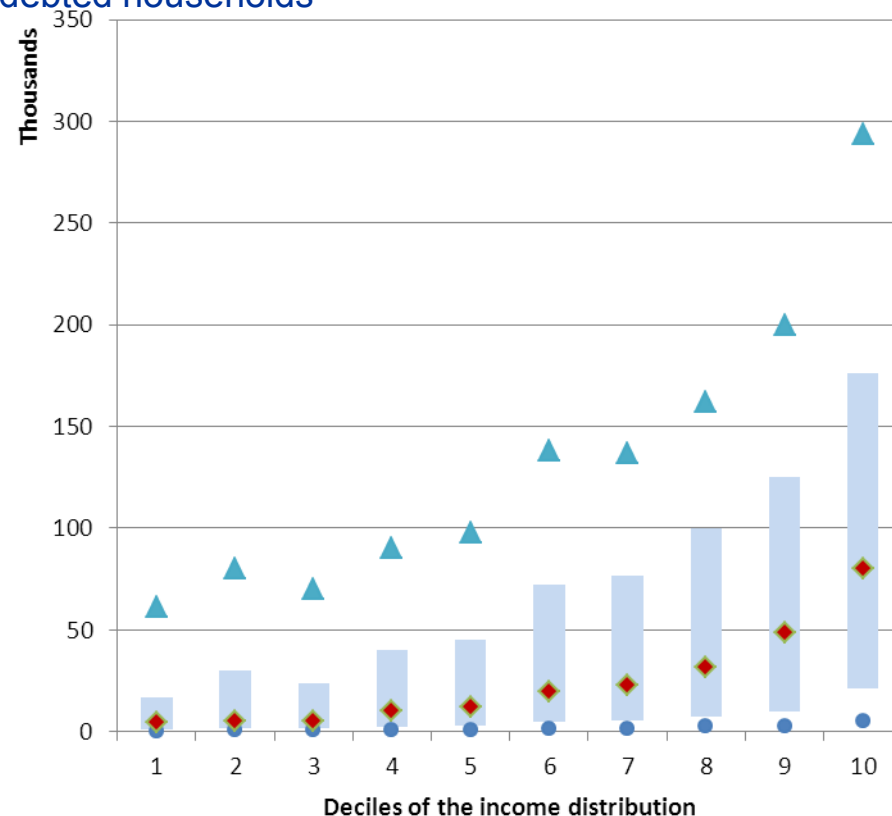
Source: Eurosystem HFCS, data for BE, ES, FI, IT, LU, MT, NL, AT, PT, SK

Indebtness

- **Liabilities concentrated on the high income groups**
- **Low income groups have very limited absolute debts, but high relative ones**

Distribution of total liabilities by income group

Indebted households



10th percentile: blue dot, Median: red lozenge, 25th to 75th: light blue rectangle, 90th percentile: blue triangle

Household liabilities

- **Large cross-country differences in HHs' access to credit**

→ for both mortgage and non-collateralised debt

Share of households having debts

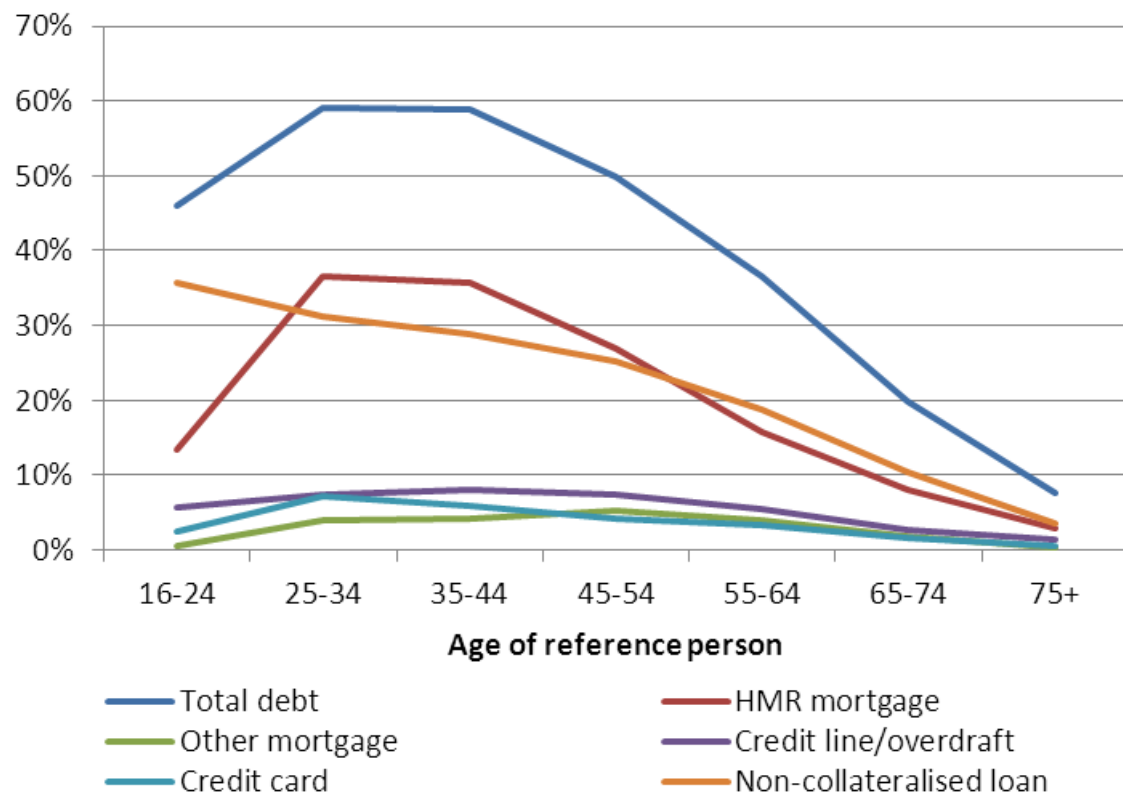
	Has debt	Has mortgage debt	Has non-mortgage debt
BE	44.7%	30.5%	24.0%
ES	49.9%	32.3%	30.7%
IT	24.8%	10.8%	17.3%
LU	58.3%	38.8%	37.0%
MT	34.1%	15.6%	25.2%
NL	65.7%	44.7%	37.3%
PT	37.7%	26.7%	18.3%
AT	35.6%	18.4%	21.4%
SK	26.8%	9.6%	19.9%
FI	59.8%	32.8%	51.2%

Source: Eurosystem HFCS, data for BE, ES, FI, IT, LU, MT, NL, AT, PT, SK

Household liabilities

Age-profile debt participation (as well as values) consistent with consumption smoothing

Portfolio distribution: % of HH portfolios

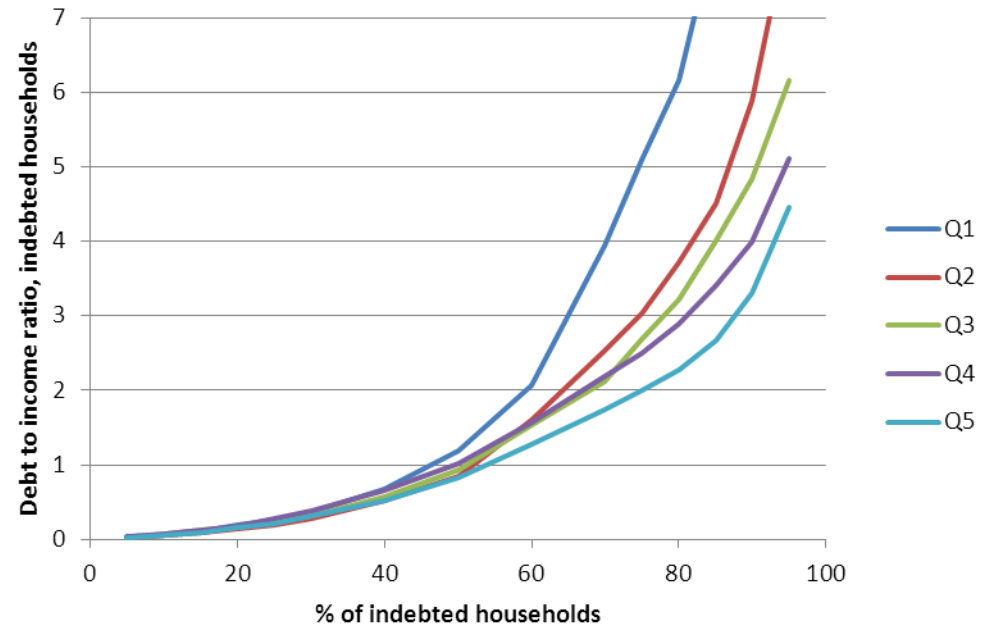


Source: Eurosystem HFCS, data for BE, ES, FI, IT, LU, MT, NL, AT, PT, SK

Financial pressure

Debt burden particularly large for low income groups

Distribution of debt-income ratio, breakdown by income quintiles



How to read: in the 5th quintile of income, 80% of the indebted households have a debt-income ratio below 2.3.

Source: Eurosystem HFCS, data for BE, ES, FI, IT, LU, MT, NL, AT, PT, SK

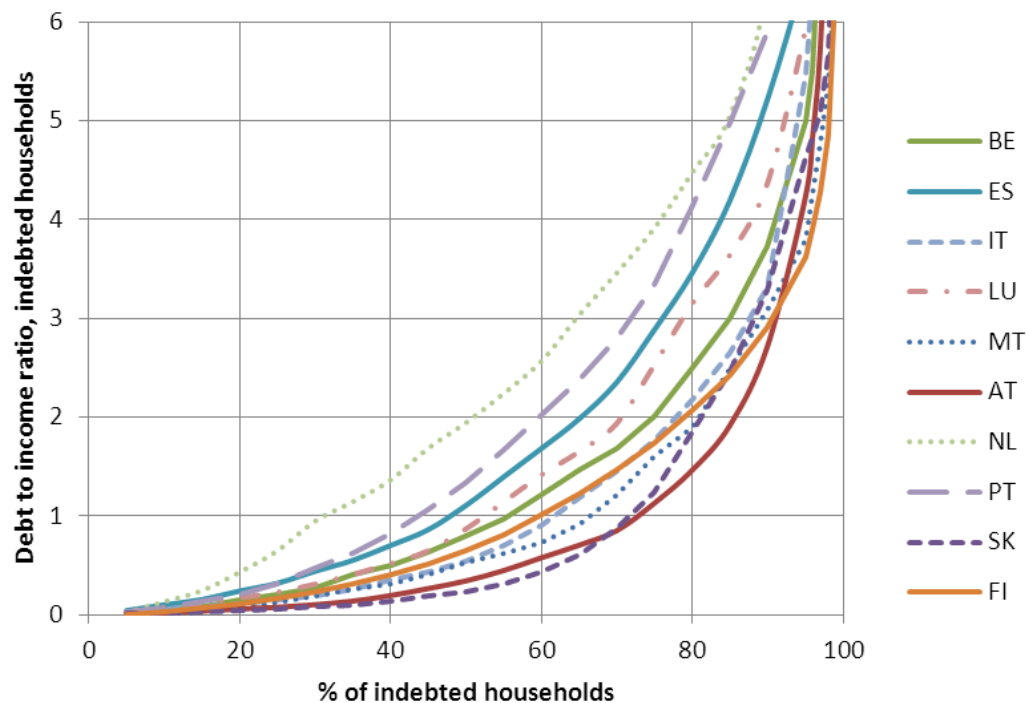
Financial pressure

Large country differences in debt-income ratios:

→ higher than 4 for:

- 20-25% HHs in NL and PT
- 15-20% HHs in ES and LU
- ~5% HHs in other countries

Distribution of debt-income ratio, breakdown by country



How to read: in Austria, 80% of the indebted households have a debt-income ratio below 1.5.

Source: Eurosystem HFCS, data for ES, FI, IT, LU, MT, NL, PT, SK

Motivation of the SME survey

(1)
Importance
SMEs economy

(2)
Monetary policy
transmission
different

(3)
Data scarcity

Main characteristics

Sponsors

- ECB
- European Commission

Frequency

- 6 months – ECB waves, limited euro area
- 2 years – joint with European Commission, extended EU

Timeliness

- Surveys in March and September each year
- Results published in less than a month (2 Nov)

Sample size

- 7,500 for ECB waves
- 15,000 for joint waves

Representativeness

- Since 2010, 11 largest euro area countries
- Limited coverage EE, CY, LU, MT, SI, SK

Breakdowns

- Age, Ownership, Autonomy
- Sector

Questionnaire of the SAFE

Standard formulation questions

- *E.g.: “Over the past six months, has [X] improved, deteriorated, or remained unchanged?”* → where [X] is one of the topics covered

Topics covered

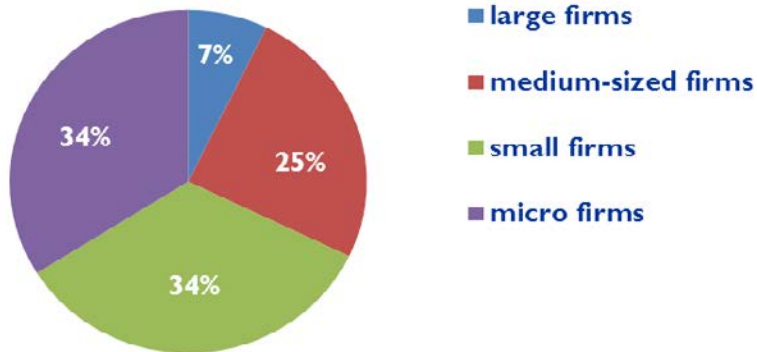
- Indicators of firm, external financing needs and application, terms & conditions for loans

Financial instruments covered

- Bank loans, overdrafts, credit lines, trade credit, debt securities, equity

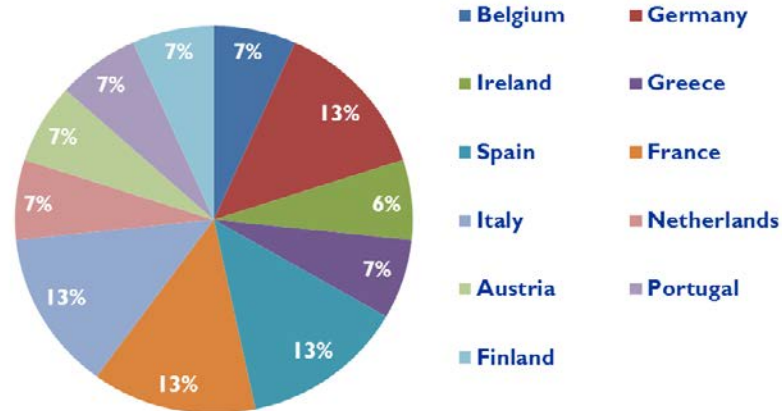
Breakdown of firms in sample

Size



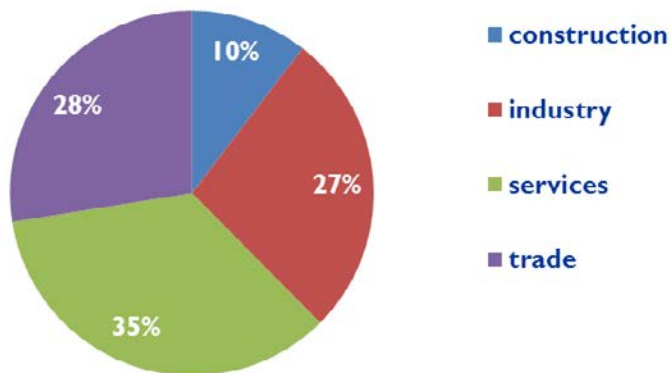
Sample size: 7,511

Countries



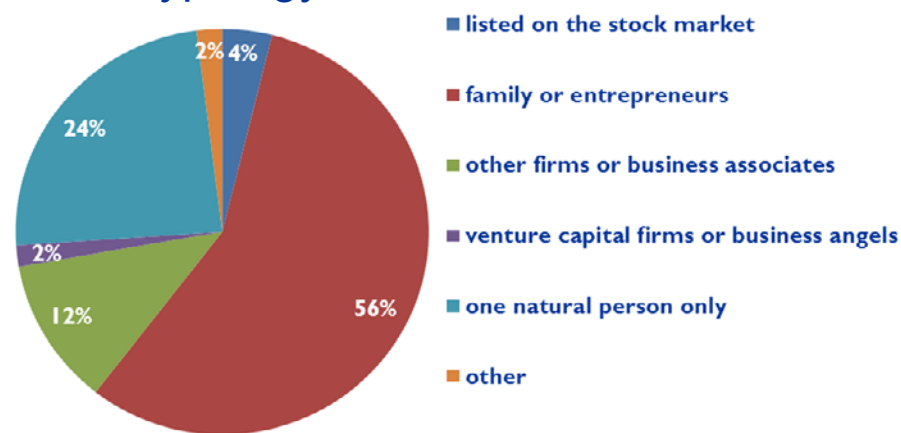
Sample size: 7,511

Category



Sample size: 7,511

Typology



Sample size: 7,511

Overall financial situation SMEs

- **Turnover dropping**

→ past two semesters

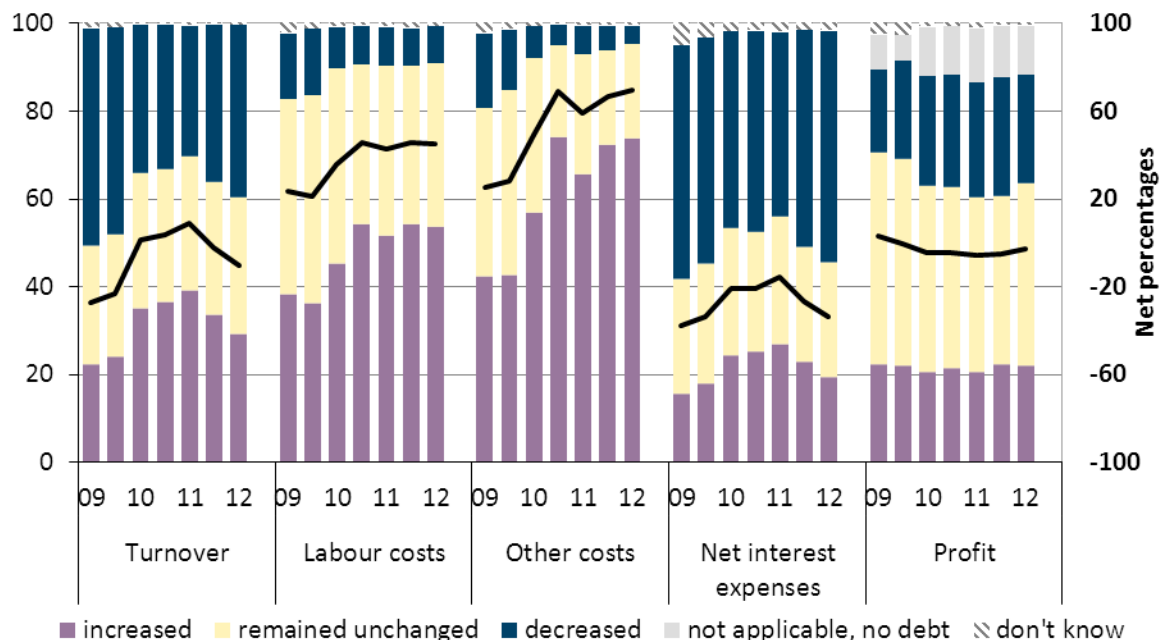
- **Overall increase costs**

→ 50% SMEs

→ declaring profit

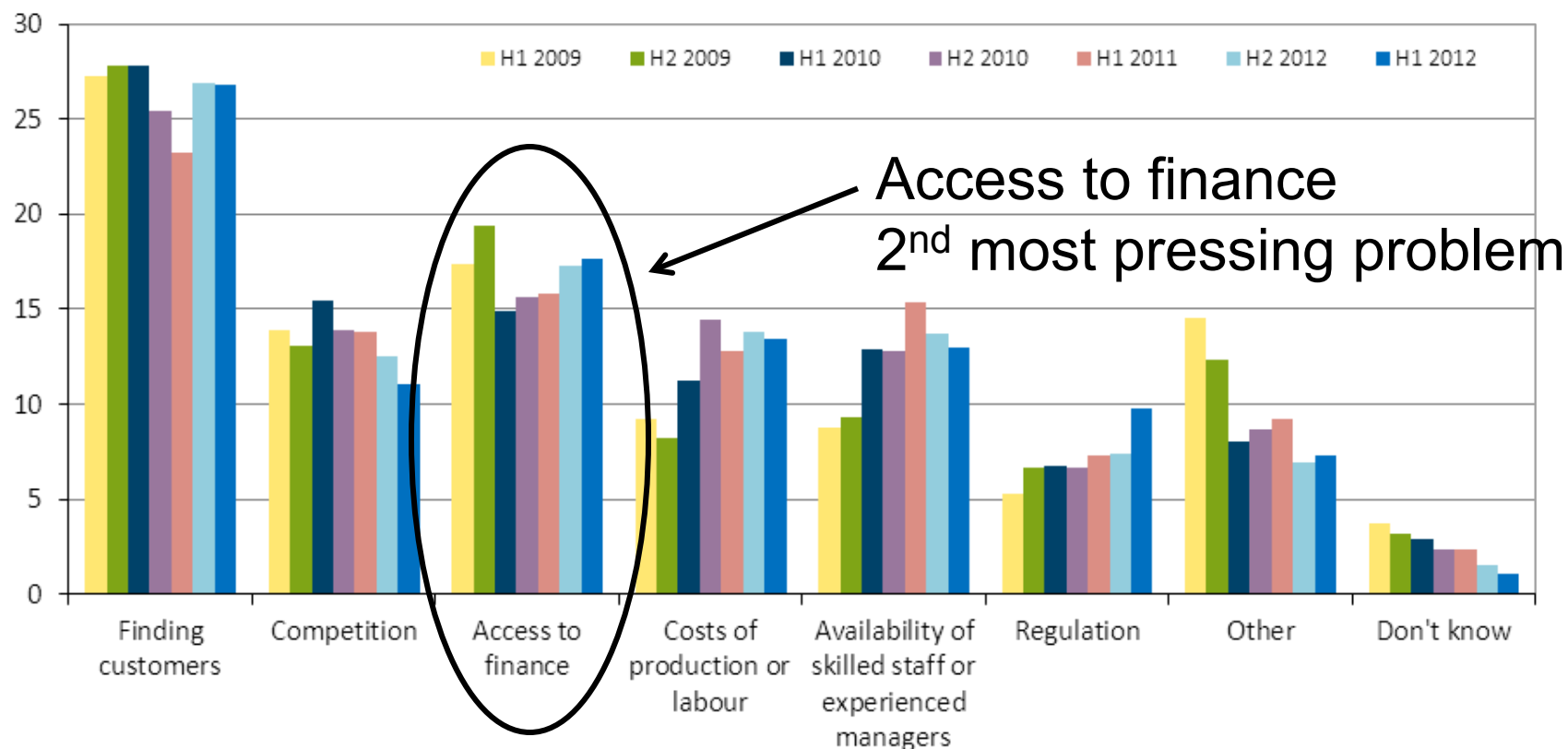
reductions throughout whole reference period

Change income and debt situation of euro area SME
(over the preceding 6 months; in percentage of respondents)



Net percentages = balance of opinion, increased – decreased (right hand scale)

Most pressing problem

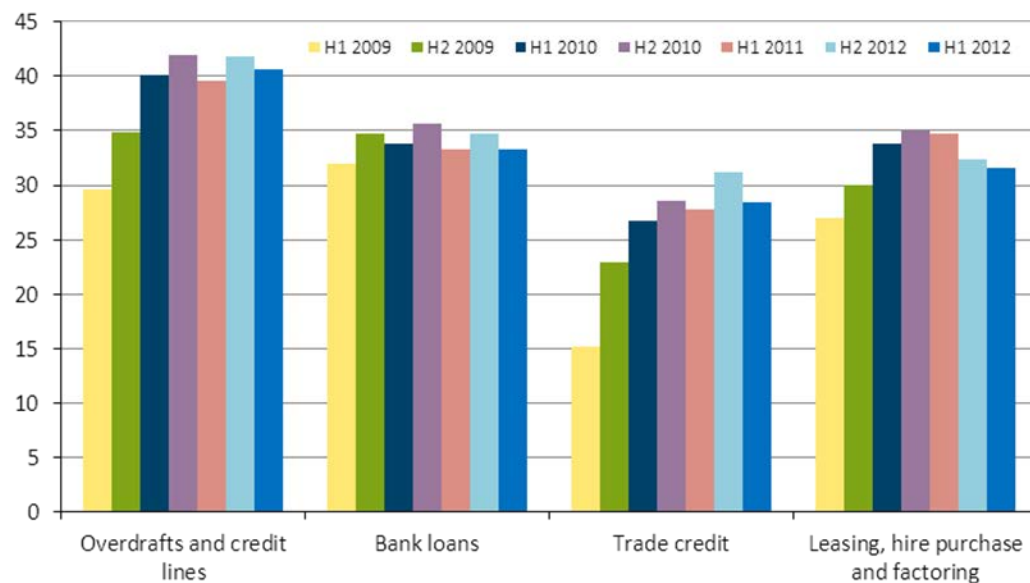


Access to finance is more pressing in **micro** firms than in medium-sized ones (18% vs. 14%), lowest in large firms

The financing of SMEs

- **SMEs largely dependent on banks**
- **Increasing external financing needs**
- **Leasing/hire-purchase/factoring decreasing since peak in 2nd half of 2010**
→ Recovery of inter-company financing

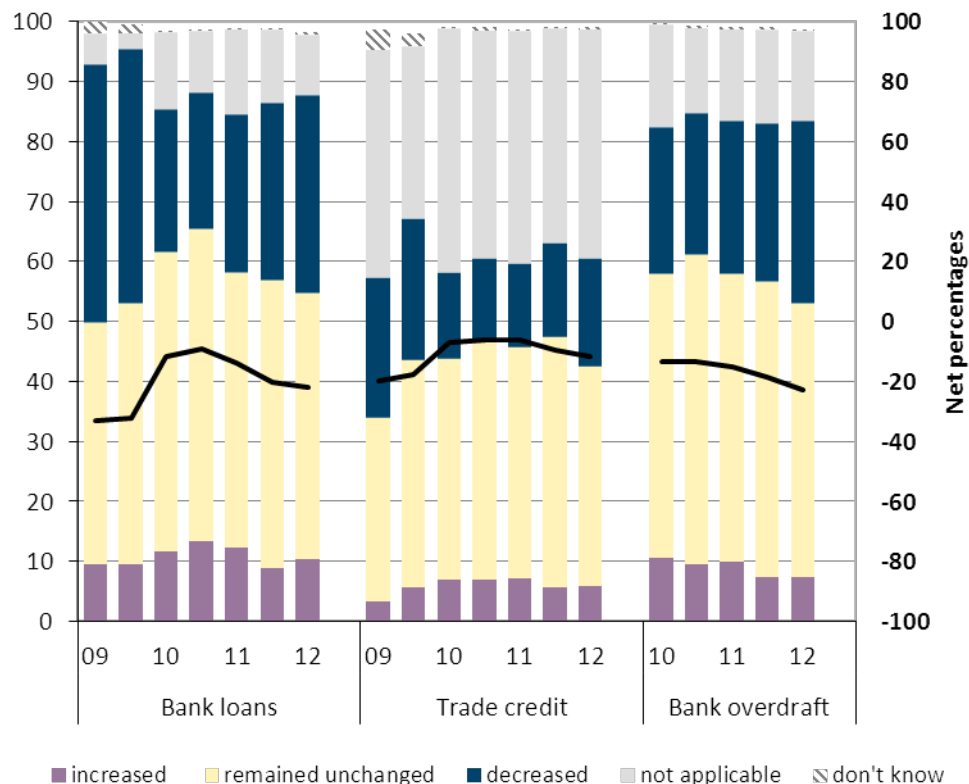
Sources of external financing of euro area SMEs
(over the preceding 6 months; % of respondents)



Availability of external financing

- **Availability overall negative, and decreasing**
→ decreasing last year over all instruments
- **Cited factors:**
 1. General economic outlook
 2. (Lack of) willingness banks

Change availability external financing euro area SME
(over the preceding 6 months; in percentage of respondents)

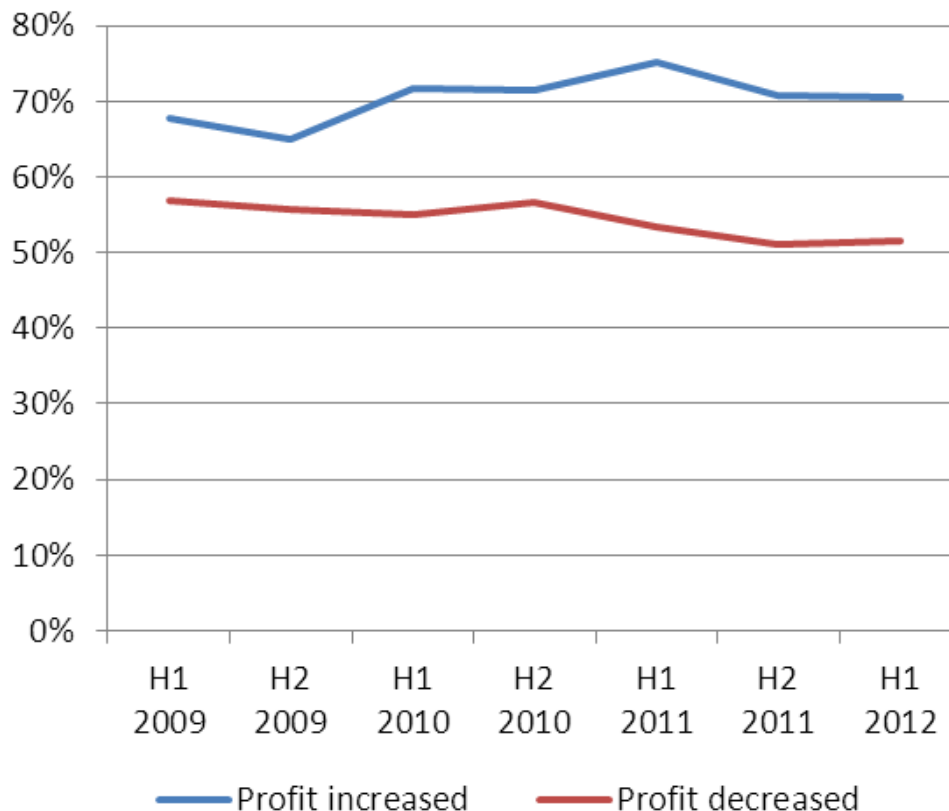


Net percentages = balance of opinion, increased – decreased
(right hand scale)

Success when applying for a bank loan

- SMEs have **higher rejection rates & higher fear of refusal**
- SMEs with increased profits had **higher rates of successful financing**
- SMEs with decreased profits are **30% more likely to abstain from applying for fear of refusal**

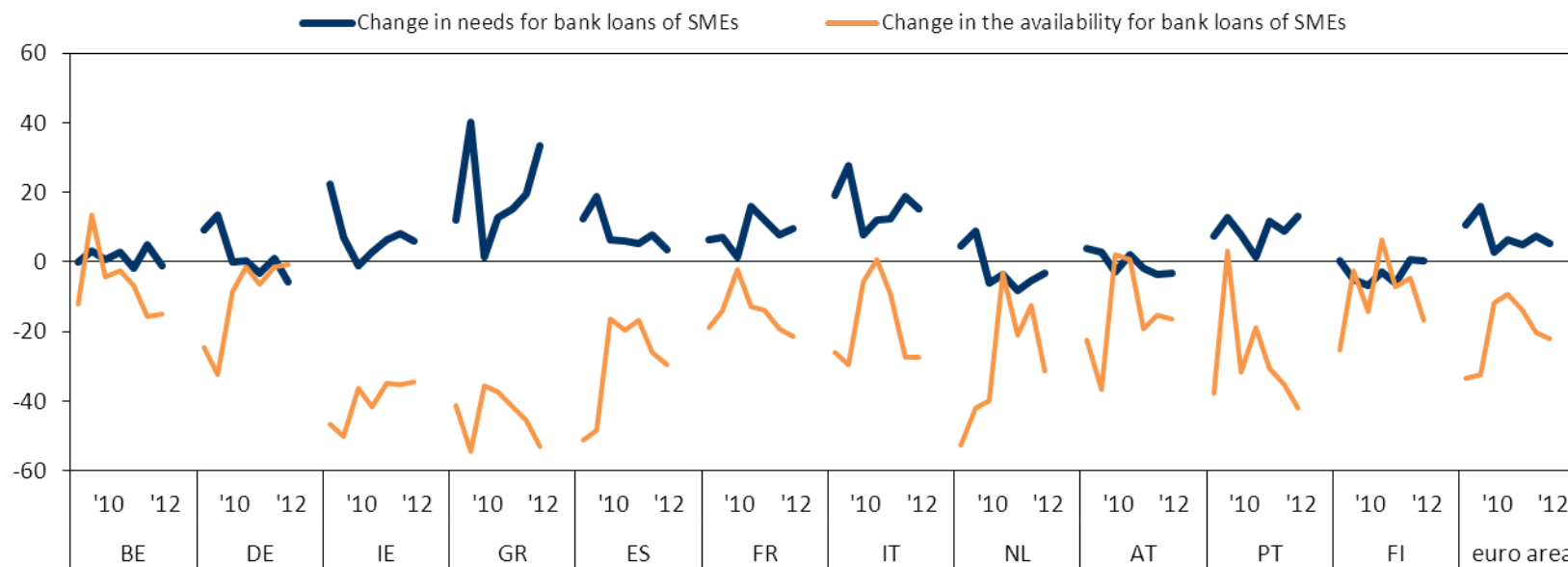
SMEs obtaining all of the loan they applied for
(over the preceding 6 months; in percentage of firms applying)



Needs and availability financing

Change in needs and availability of SMEs for bank loans across euro area countries

(over the preceding 6 months; net percentages)



- **External financing needs**

- Increase more in GR
- Positive or neutral in most countries, stable compared to last period

- **Availability changes contrasted by country**

- Decreasing in GR, ES, PT, NL, FI
- Negative but stable in BE, IE, IT, AT

Concluding remarks

- **Two (very different) surveys show European perspective on access to finance**
- **Household survey: structural issues**
 - Debt **more concentrated** than wealth
 - Lower absolute liabilities for low income households, but **higher relative debt burden**
- **SME survey: conjunctural issues**
 - Access to finance remains **second most pressing** problem
 - **Banks** = main external financing source for SMEs
 - Availability of external financing has decreased in recent year

Way forward

- **Household survey**
 - Main results to be published in **February 2013**
 - Data **available** for research purposes through ECB
 - More detailed analysis to be conducted then
- **SME survey**
 - Results just published (last Friday)
 - Waves **every six months**
 - “Big” wave with all EU countries and more questions in **September 2013**

Thank you for your time



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

Mapping the financial sector: microfinance and beyond¹

Scott Gaul, Microfinance Information Exchange

¹ This presentation 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.



Microfinance Information Exchange

Mapping the financial sector

Microfinance and beyond

November 2012

*The Premier Source for Microfinance
Data and Analysis*



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Mapping the financial sector

- Who we are
- Geospatial analysis for financial inclusion
- Long-run trends for data on financial inclusion

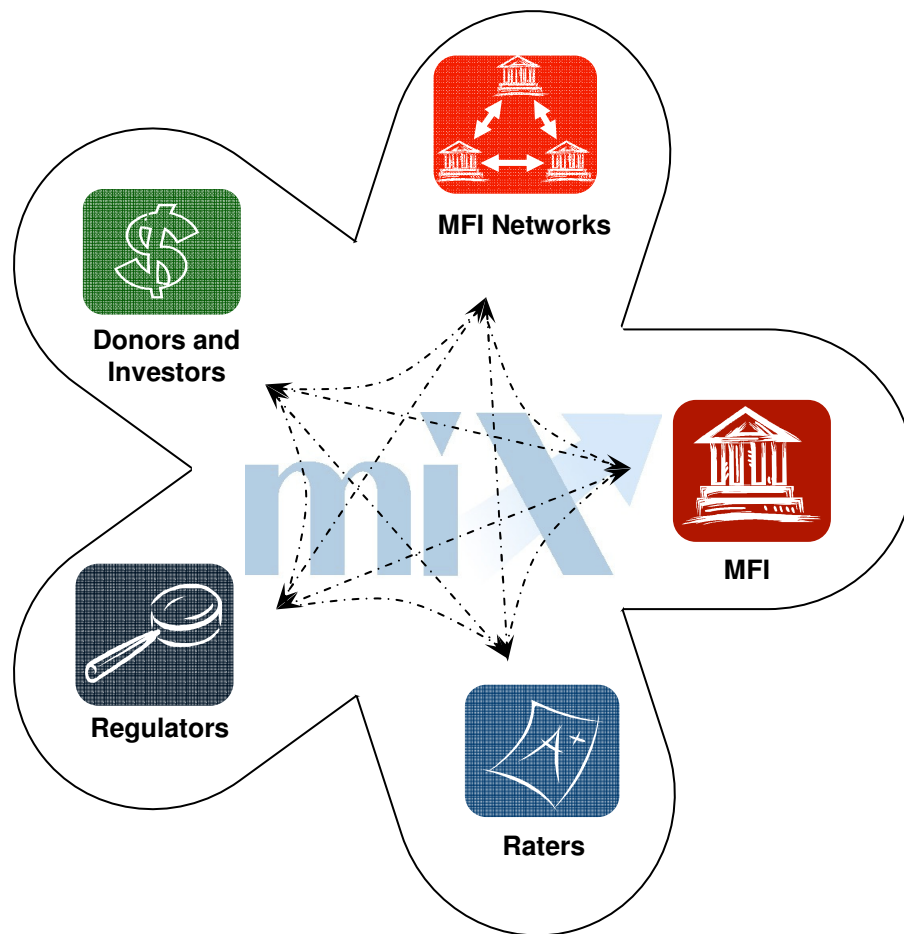
MIX is the premier source for objective, qualified, and relevant microfinance performance data and analysis.

Committed to strengthening financial inclusion and the microfinance sector by promoting transparency, MIX provides information on microfinance institutions (MFIs), funders, networks and service providers dedicated to serving the financial sector needs for low-income clients.

The logo for miX Market, featuring the lowercase letters 'miX' in the same blue, sans-serif font as the main logo, followed by the word 'Market' in a grey, sans-serif font.



2002 - 2012



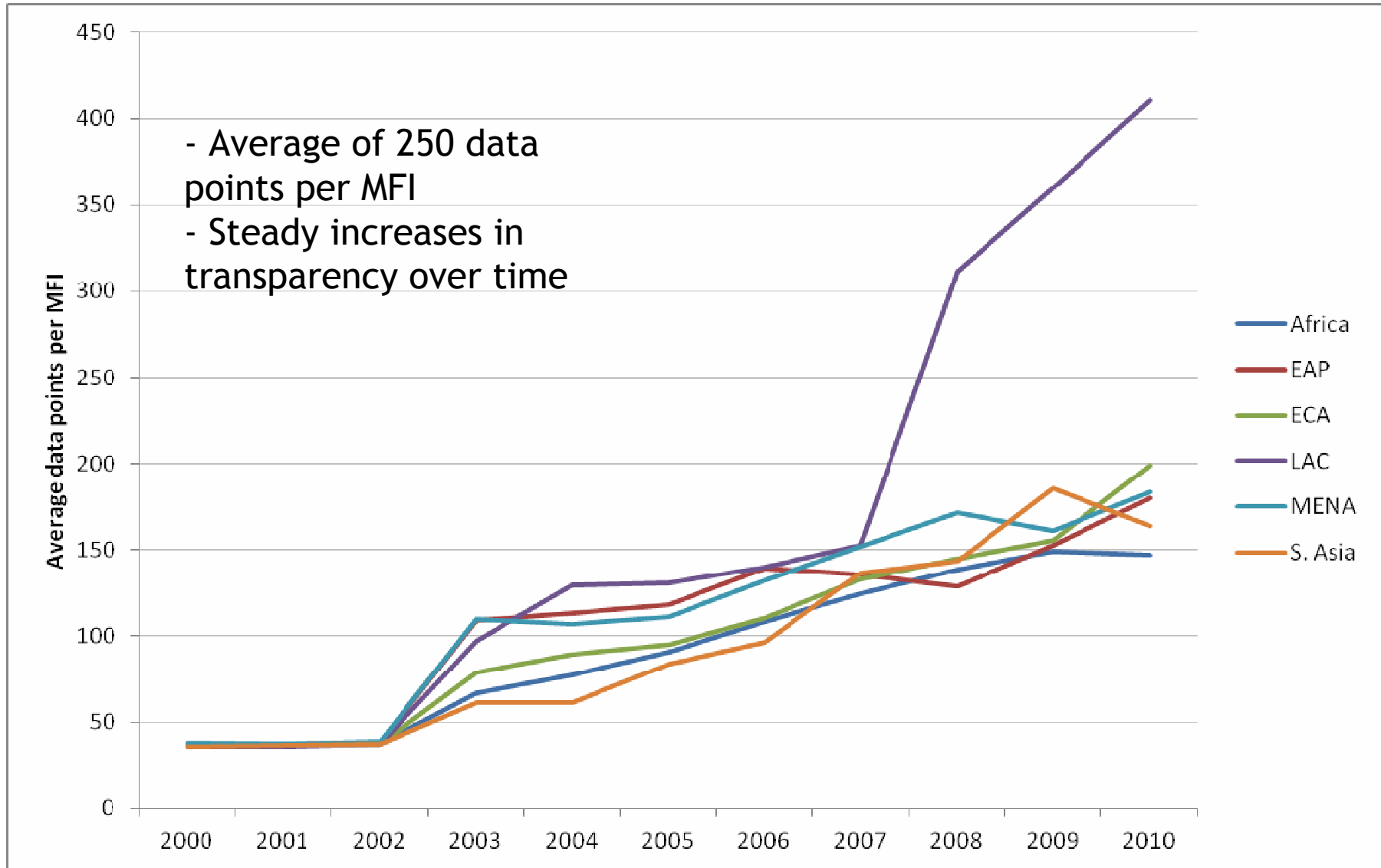
2,100+ MFIs

150 Networks

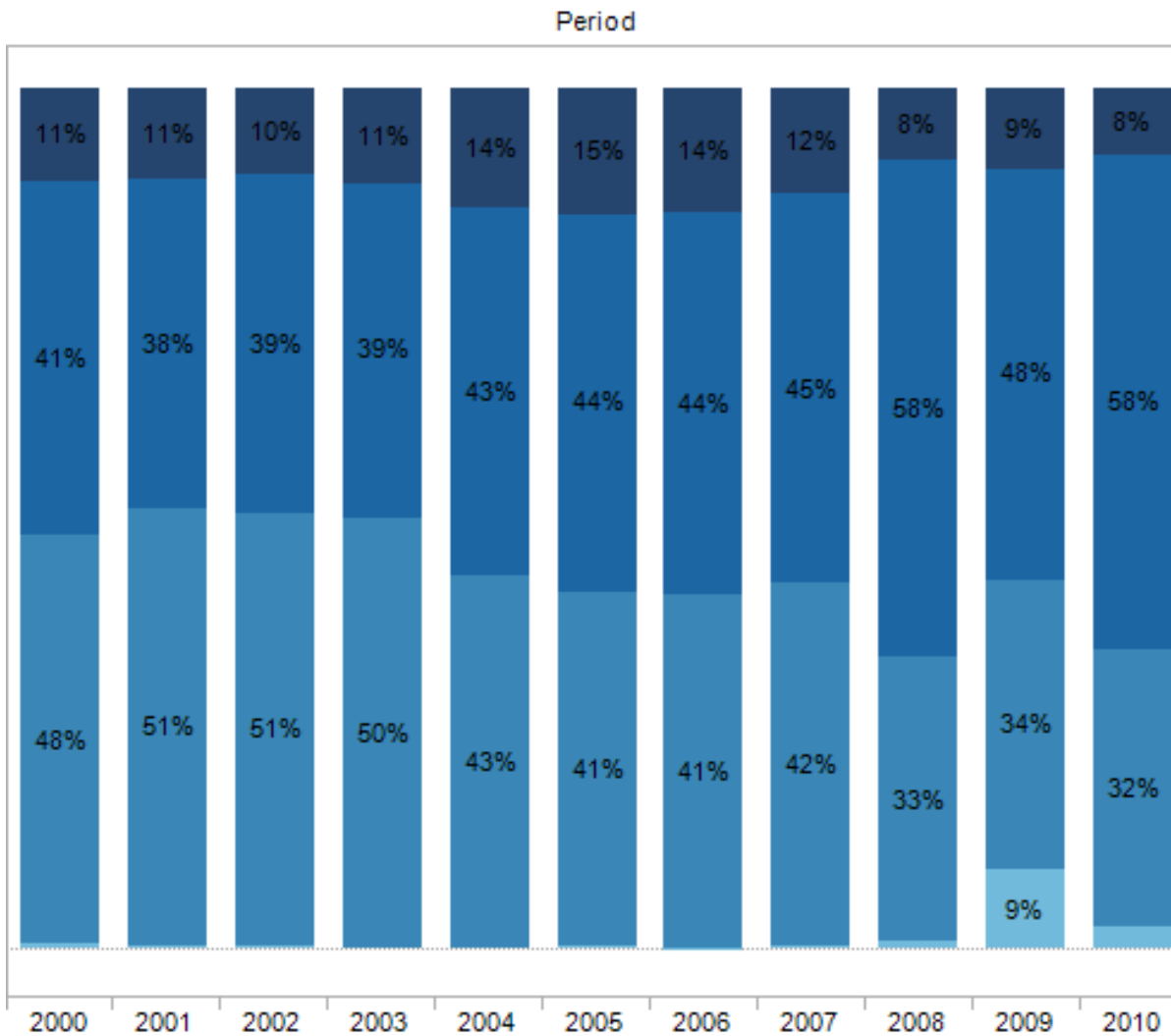
200 Funders

300 Service Providers

How has data on microfinance evolved?



Where does this data come from?



Diamond Score (bin)

- Audits + rating
- Audits
- Unaudited
- Partial

- Majority of data from audits
- Ratings for some (8 - 15%)
- Roughly 1/3 now unaudited (self-reported)



Research: recent publications using MIX data

- Selected papers referencing MIX data from the last year or so (not exhaustive):
- [“Microfinance in evolution: An industry between crisis and advancement”](#) Cédric Lützenkirchen, Christian Weistroffer, Deutsche Bank Research
- [“External Validity and Partner Selection Bias,”](#) Hunt Allcott and Sendhil Mullainathan, NYU/NBER, Harvard
- [“Ownership and technical efficiency of microfinance institutions: Empirical evidence from Latin America,”](#) Roselia Servin, Robert Lensink, Marrit van den Berg, Journal of Banking & Finance
- [“Competition, loan rates and information dispersion in microcredit markets,”](#) Guillermo Baquero, Malika Hamadi, Andréas Heinen, ESMT Research Working Papers
- [“The Profit Orientation of Microfinance Institutions and Effective Interest Rates”](#) Peter W. Roberts, World Development
- [“Do Institutions Matter for Microfinance Profitability? Evidence from Africa”](#) Peter Muriu, University of Birmingham - The Birmingham Business School
- [“Microfinance, Financial Inclusion and Financial Development: An Empirical Investigation with an International Perspective,”](#) Jovi C. Dacanay, Bienvenido Nito and Patricia Buensuceso. University of Asia and the Pacific
- [“Risky Business: An Empirical Analysis of Foreign Exchange Risk Exposure in Microfinance,”](#) Julie Abrams, Microfinance Analytics
- [“Over-indebtedness and Microfinance: Constructing an Early Warning Index,”](#) Vivien Kappel, Annette Krauss, Laura Lontzek* Center for Microfinance, University of Zurich



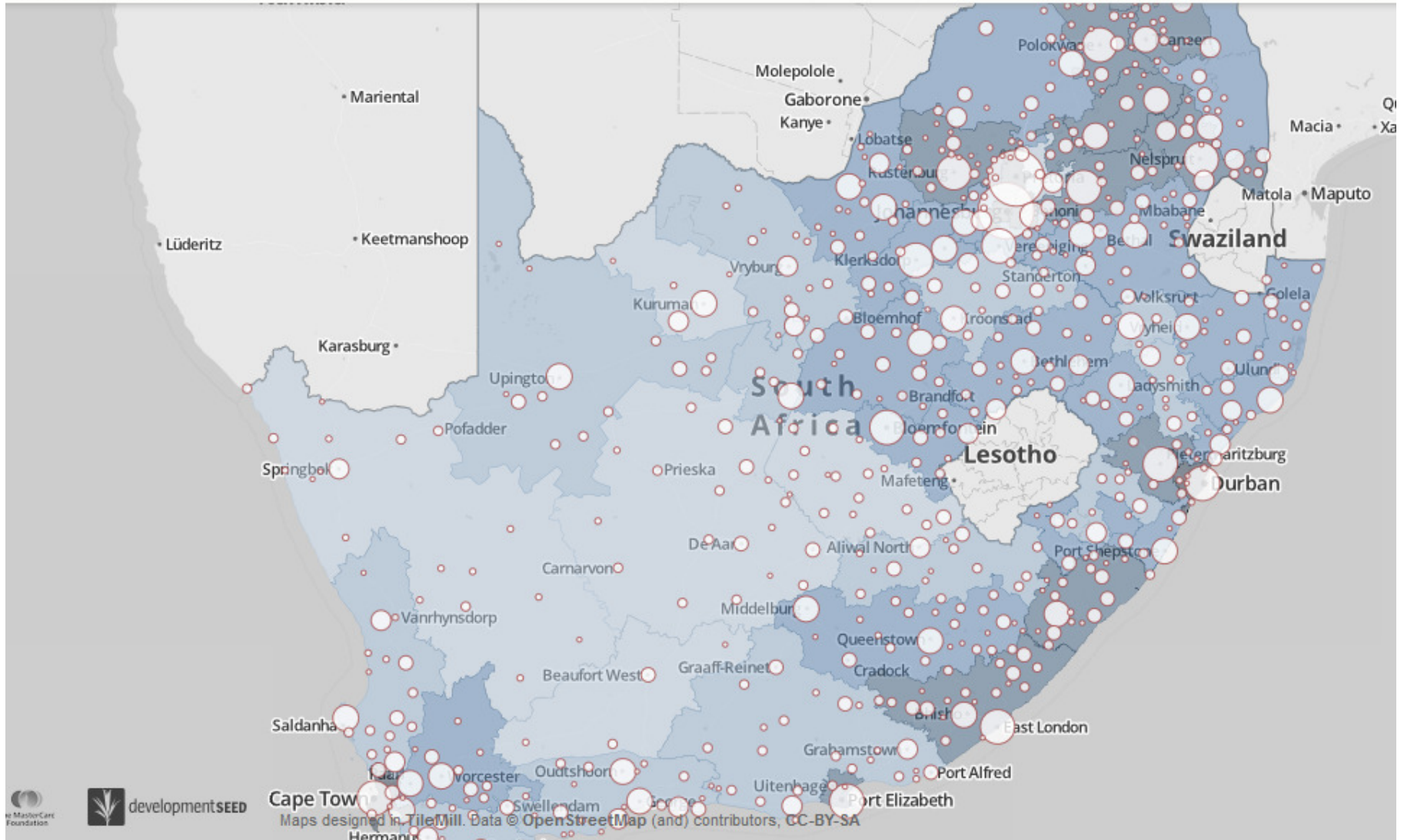
Key questions for geospatial analysis

- Access
 - How many people are within X km of a point of service?
 - What percent of the population is served (by product, by type of institution)?
- Market trends
 - What are trends in access? How has the market grown?
 - Are there hotspots or clusters of activity? Are there areas that are relatively under-served?

- Motivating questions
 - [Financial Sector Charter](#) goals for access based on physical proximity
 - A sales point within 15 km of a qualifying area
 - A service point within 10 km of a qualifying area
 - A transaction point within 5 km of a qualifying area
- How we did it
 - Public data: Branch and PoS listings for customers + regulatory databases
 - Technology: Web scrapers to extract and consolidate data automatically
 - Results: 40K access points mapped to town level

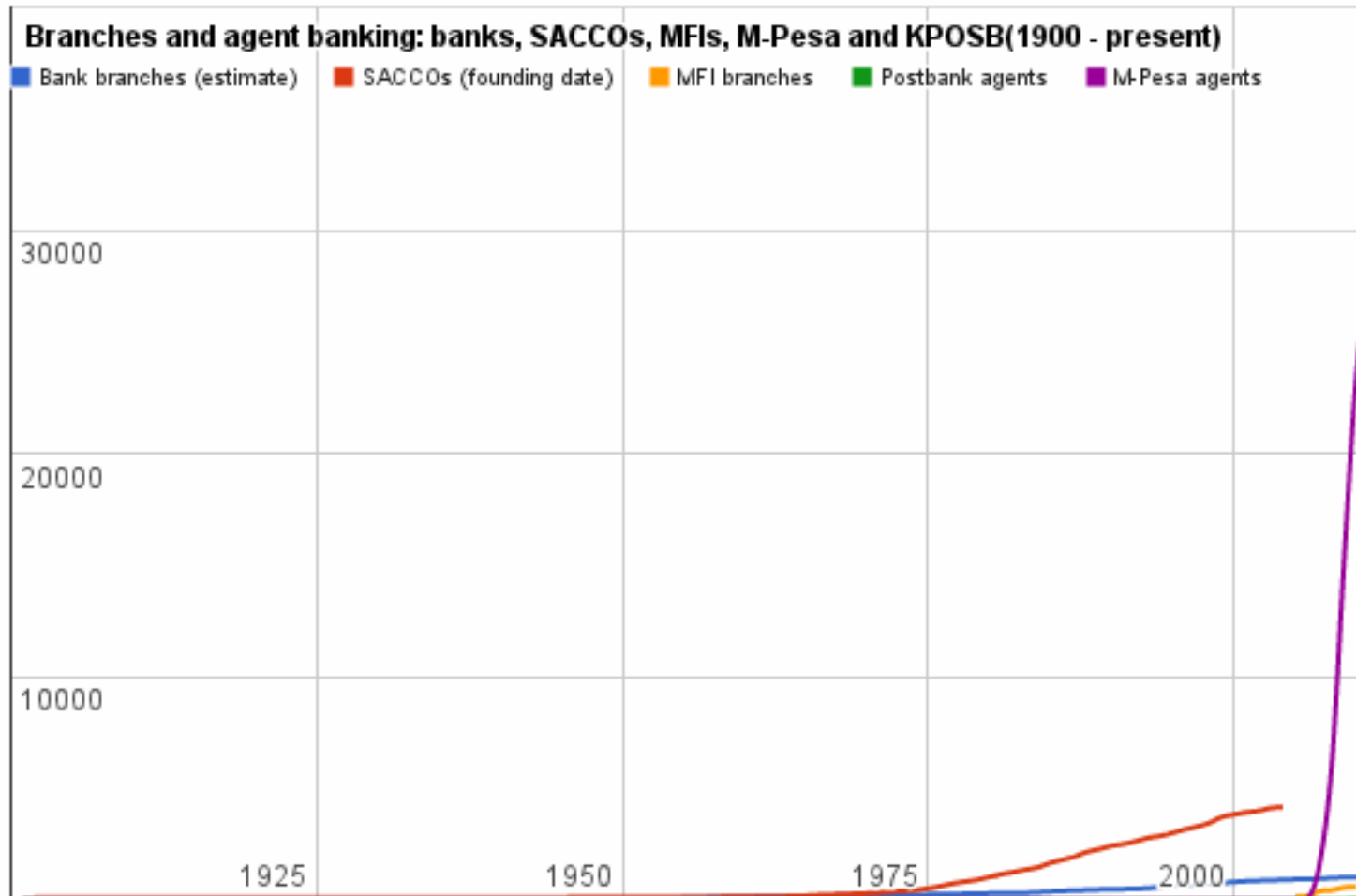
South Africa Map of Financial Inclusion

[DOWNLOAD](#)
[ABOUT THE DATA](#)



Cape Town
 Maps designed in TileMill. Data © OpenStreetMap (and) contributors, CC-BY-SA

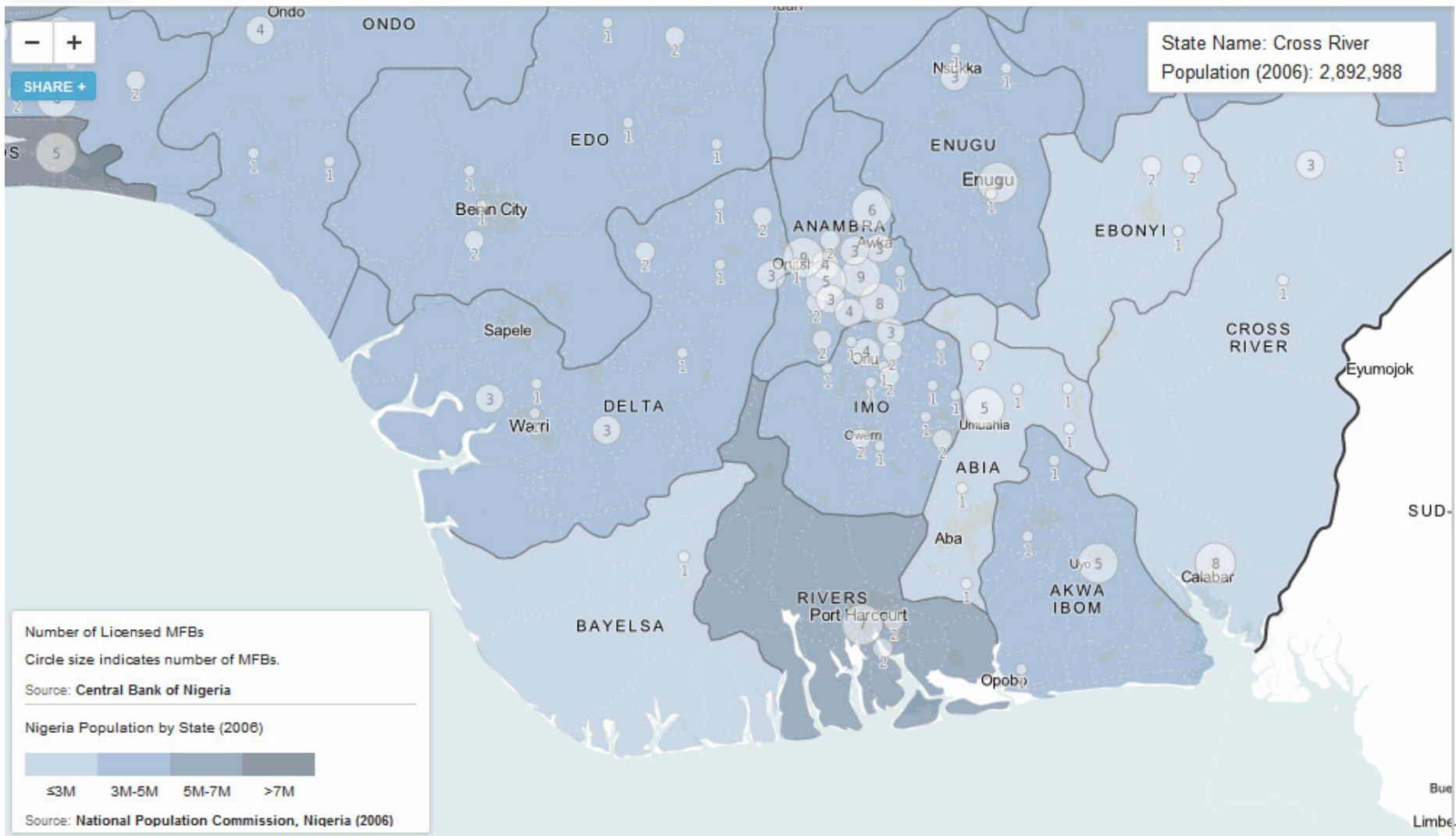
Figure 3: Growth of financial sector infrastructure and agents in Kenya - 1900 - 2011



- Motivating questions
 - Can we monitor proliferation of 900+ banks?
 - Can we track or find patterns in license revocations (200+)?
 - Can we identify supply / demand gaps?
- How we did it
 - Location info from registry of banks posted by CBN
 - Rule-based and manual scrubbing of location info
 - Utilize NIGECS database of demographic data at LGA (admin-2) level; more detailed than census data

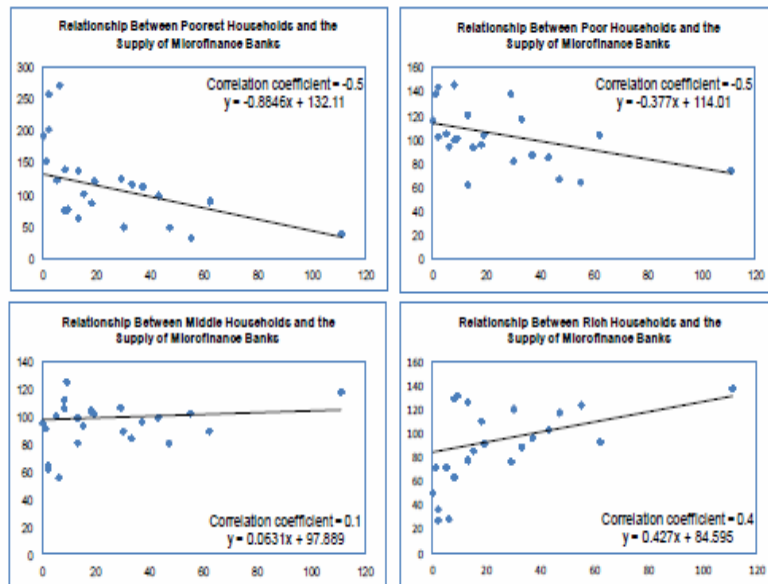


Nigeria: testing microfinance bank locations



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Nigeria



At the district level, a clear inverse relationship between poverty and access to microfinance banks

Database	CGAP (2010)	IMF (2011)	South Africa map data
Bank branches per 1000 km ²	2.22	3.08	4.32
Bank branches per 100,000 adults	8.00	10.7	15.06

Bottom-up aggregation of identified access points finds 50% more bank branches than global surveys indicate

- Motivating questions
 - Could we have foreseen the microcredit crisis using spatial data?
- How we did it
 - Location information a standard disclosure in audits

Microcredit Foundation "Prizma"
Financial statements for the year ended 31 December 2009

Notes to the financial statements (continued)

15 Loans and advances to customers (continued)

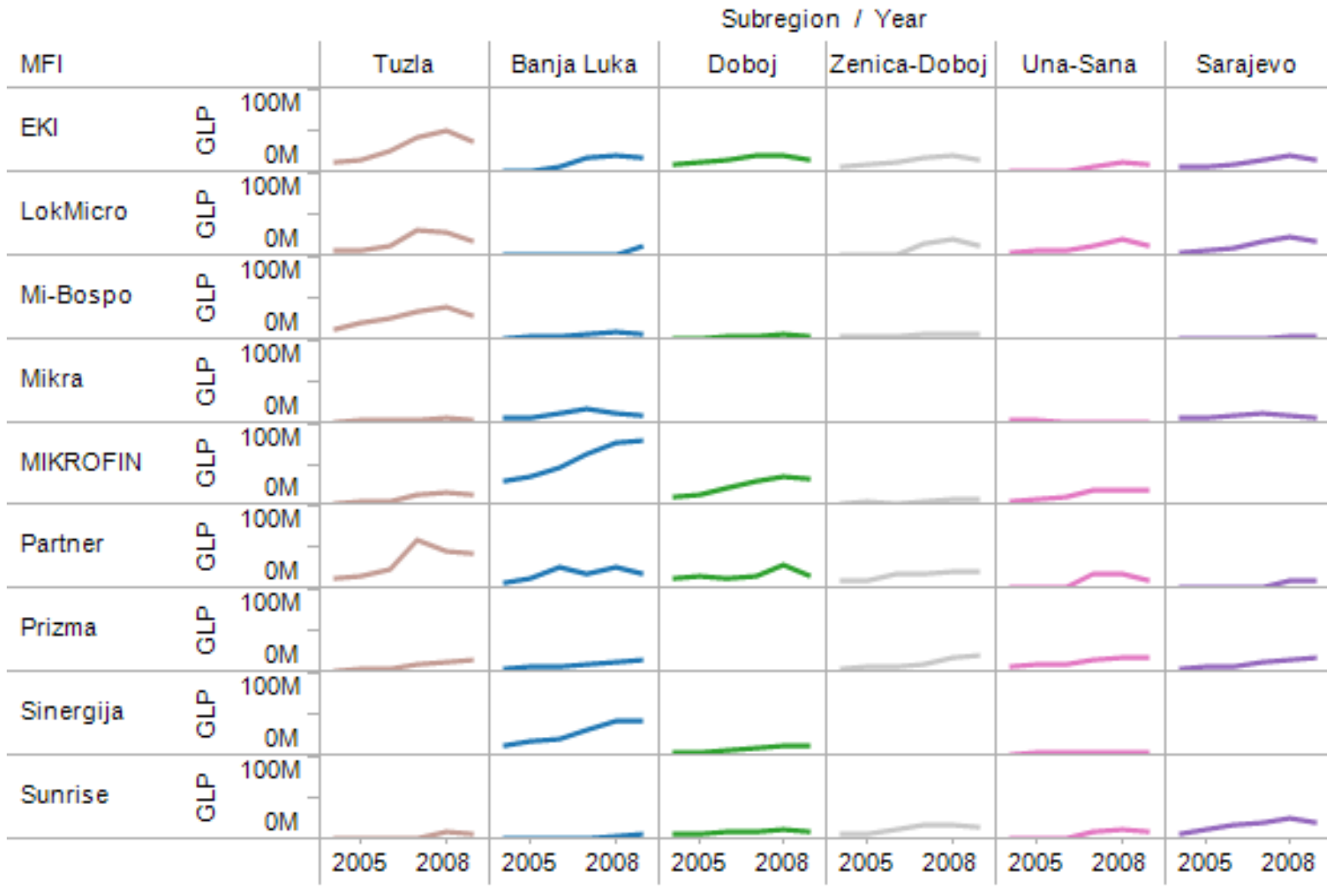
c) Geographic analysis

	2009 BAM'000	2008 BAM'000
Bihac	16,033	14,880
Zenica	17,929	14,555
Sarajevo	15,666	13,207
Mostar	10,303	8,578
Banja Luka	12,667	11,185
Bijeljina	572	-
Tuzla	11,904	10,635

- Calculate market share for individual MFIs and compute HHI (Hirschman-Herfindahl Index) to look at concentration

Bosnia: identifying hotspots for crises





- A growing database on microfinance
- Expanding beyond microfinance to look at key questions using geospatial analysis
 - Access, supply-demand gaps
 - Trends, monitoring and tracking performance
 - Market concentration and early warning systems
- Key principles for data and indicators
 - Use public data whenever possible
 - Use technology for efficiency
 - Make *more* data publicly available



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IFC Workshop on Financial Inclusion Indicators
Co-hosted by Bank Negara Malaysia
5 – 6 Nov 2012, Sasana Kijang, Kuala Lumpur

Measuring financial literacy: the Malaysian case¹

Ooi See Eim, Central Bank of Malaysia

¹ This presentation 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.

Measuring Financial Literacy

[The Malaysian Case]

Session 5
Workshop on Financial Inclusion Indicators
5 - 6 November 2012

Ooi See Eim
Consumer and Market Conduct Department
Bank Negara Malaysia



Outline

- Participation in OECD/INFE pilot survey 2010/11 on measuring financial literacy provided a demand side measurement
- Survey identified consumer vulnerabilities for financial inclusion and education intervention
- Evidence-based initiatives to enhance financial literacy level and to promote financial inclusion

OECD/INFE pilot survey provided a demand side measurement

- Survey covered financial knowledge & skills, behaviour and attitudes relating to various aspects of financial literacy
- Survey aimed to obtain robust, internationally comparable data to measure the levels of financial literacy in each participating country
- Observations from the survey facilitated implementation of evidence-based financial inclusion and education initiatives
- Participation in the survey provides opportunity to conduct repeat studies to measure and identify change over time

KNOWLEDGE & SKILLS

Knowledge of financial concepts
– Inflation & investment risk
Financial numeracy
– Division & time
– Return
– Simple & compound interest

BEHAVIOUR

Basic Money Management

Decision maker
Household budget incidence
Decision making - P2Y new ownership
Sources of information - P2Y new ownership

Savings Behaviour

Past 12 months savings method
Savings sustaining power in the event of income loss
Financial deficit – incidence / response

Financial Participation

Financial products awareness
Current holdings
Past 2 years purchase

ATTITUDE

Attitude towards money
Financial responsibility

The survey findings were published in March 2012 & can be found at http://www.oecd-ilibrary.org/finance-and-investment/measuring-financial-literacy_5k9csfs90fr4-en

Survey guided by parameters & sampling methodology set by OECD

Based on OECD's Core Questions

- ✓ Translation to retain same meaning

Obtained **samples representative** of Malaysian population

- ✓ a minimum of 1,000 samples
- ✓ individuals aged 18 and above
- ✓ personal interviews/telephone and/or face-to-face. No internet or online surveys
- ✓ minimum 60% success rate

Allowed **internal requests** to collect

- ✓ extra samples on low income households to gauge level of literacy among low income households
- ✓ supplementary questions on household consumption pattern
- ✓ data on awareness of consumer education initiatives

Guiding principles

- ✓ Clear survey objective, not be distracted with other objectives
- ✓ Whole process < 30 minutes for good attention span of respondents
- ✓ Supplementary questions must not overshadow or distract attention from core questions
 - should consume < 30% of interview process
 - must be related to main issues being surveyed
 - weaved in within core questions to minimise possible disruption
 - Must exhaust other possible sources of information before inclusion in survey (e.g. census, other survey or studies)

Our experience in preparing and implementing the survey

Pilot Interviews

- Questionnaire in 3 languages - Bahasa Malaysia, English & Mandarin
- Focus groups - assess applicability of questionnaire in local context
- Pilot interviews - assess translation, comprehension, clarity and questionnaires duration in all 3 languages

Data collection

- Fieldwork conducted nationwide within six-week period - house to house random visits, interview individuals within each household based on last birthday
- Difficulties and/or reluctance of respondents to elaborate necessitate prompting, eg. 'QM3 - What did you do to make ends meet?' - respondents relieved when able to choose an answer
- Conventional banking and insurance have different underlying principles to Islamic banking and Takaful
 - adjustments to reflect the co-existence between conventional and Islamic banking systems without compromising original intention
 - Interviewers need to clarify the differences

Quality control

- Call back, visit by our staff, further verification for peculiarities, data test run
- Compare with other readily available data shows similar trend (eg deposit accounts, insurance ownership)

Majority of respondents have some basic knowledge of key financial concepts

	Division	Time-value of money	Interest paid on loan	Calculation of interest plus principle	Compound interest and correct answer to previous question	Risk and return	Definition of inflation	Diversification
Albania	89%	61%		40%	10%	77%	81%	63%
Armenia	86%	83%	87%	53%	18%	67%	57%	59%
Czech Republic	93%	80%	88%	60%	32%	81%	70%	54%
Estonia	93%	86%	84%	64%	31%	72%	85%	57%
Germany	84%	61%	88%	64%	47%	79%	87%	60%
Hungary	96%	78%	95%	61%	46%	86%	91%	61%
Ireland	93%	58%	88%	76%	29%	84%	88%	47%
Malaysia	93%	62%	93%	54%	30%	82%	74%	43%
Norway*	61%	87%	61%	75%	54%	18%	68%	51%
Peru	90%	63%		40%	14%	69%	86%	51%
Poland	91%	77%	85%	60%	27%	48%	80%	55%
South Africa	79%	49%	65%	44%	21%	73%	78%	48%
UK	76%	61%	90%	61%	37%	77%	94%	55%
BVI**	84%	74%	60%	63%	20%	83%	87%	41%

Source: Atkinson, A & F.Messy (2012), "Measuring Financial Literacy: Results of the OECD/International Network on Financial Education (INFE) Pilot Study", *OECD Working Papers on Finance, Insurance and Private Pensions*, No.15, OECD Publishing

Large proportion of respondents are active savers and carefully consider their purchases

	Behaviour statements				Responsible and has a household budget	Has been actively saving or buying investments in the past year	Financial product choice		
	Carefully considers purchases	Pays bills on time	Keeps close watch on personal financial affairs	Sets long term goals and strives to achieve them			...after gathering some info	... after shopping around and using independent info or advice	Has not borrowed to make ends meet
Albania	87%	77%	71%	30%	59%	42%	49%	2%	69%
Armenia	91%	94%	81%	58%	51%	36%	42%		53%
Czech Republic	75%	85%	76%	36%	37%	72%	28%	10%	89%
Estonia	68%	83%	78%	41%	28%	36%	24%	8%	78%
Germany	82%	96%	87%	61%	22%	86%	52%	5%	96%
Hungary	86%	82%	71%	52%	31%	27%	48%	4%	86%
Ireland	83%	85%	85%	56%	54%	53%	39%	10%	86%
Malaysia	92%	69%	78%	64%	74%	97%	39%	3%	79%
Norway	72%	79%	89%	59%	25%	71%	57%	5%	93%
Peru	91%	86%	82%	71%	49%	62%	52%	4%	73%
Poland	70%	78%	81%	46%	54%	51%	32%	2%	79%
South Africa	83%	61%	65%	55%	43%	53%	56%	3%	74%
United Kingdom	77%	89%	80%	43%	43%	68%	29%	16%	91%
BVI	87%	83%	80%	68%	43%	83%	70%	2%	87%

About half of the respondents displayed positive attitude in planning for the future

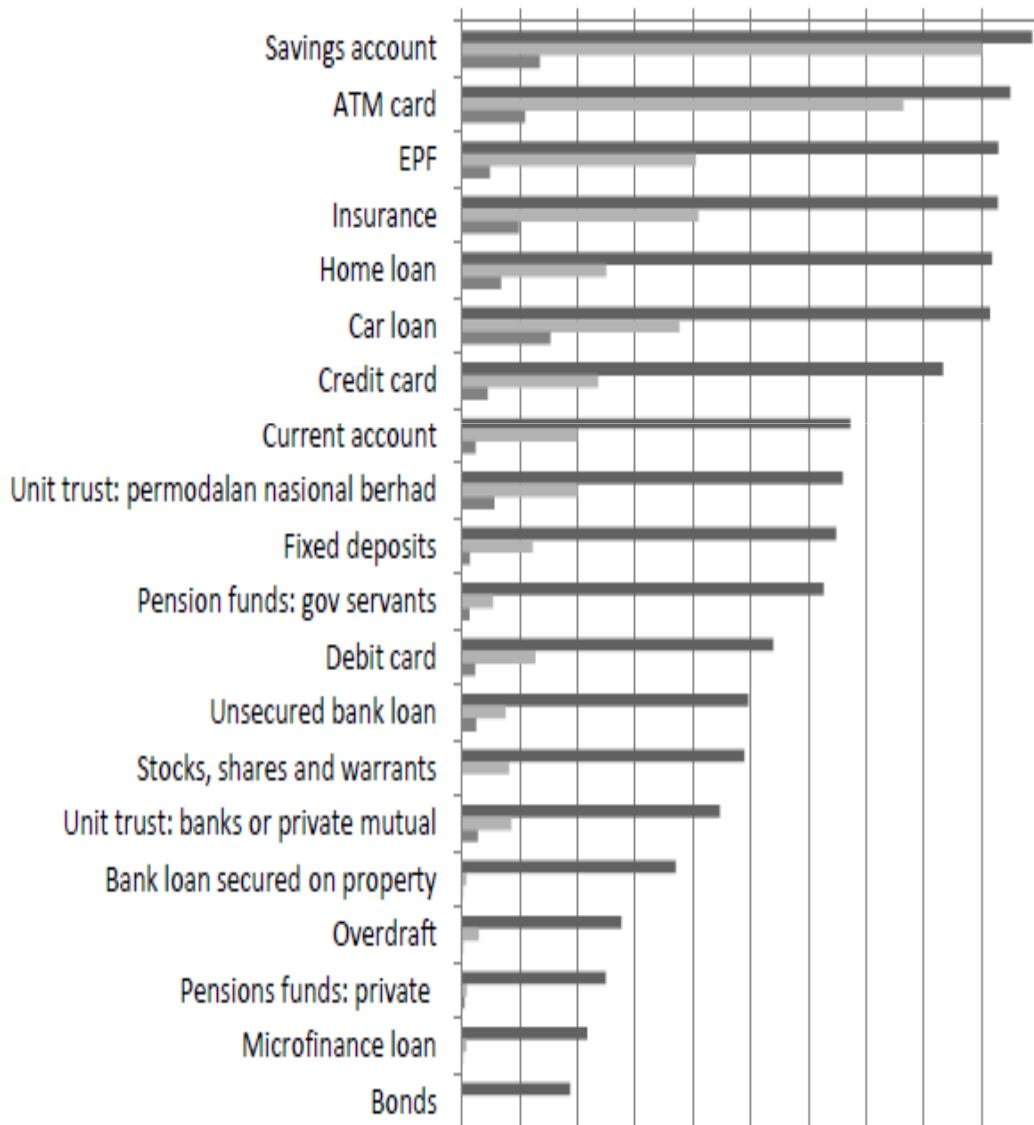
	Disagrees with the following attitude statements:		
	I find it more satisfying to spend than save it for the long term	I tend to live for today and let tomorrow take care of itself	Money is there to be spent
Albania	61%	66%	45%
Armenia	8%	60%	2%
Czech Republic	45%	69%	29%
Estonia	39%	49%	24%
Germany	49%	65%	26%
Hungary	56%	68%	33%
Ireland	38%	54%	30%
Malaysia	47%	57%	26%
Norway	57%		
Peru	64%	72%	45%
Poland	19%	45%	12%
South Africa	48%	60%	39%
United Kingdom	35%	50%	29%
BVI	60%	66%	31%

Source: Atkinson, A & F.Messy (2012), "Measuring Financial Literacy: Results of the OECD/International Network on Financial Education (INFE) Pilot Study", *OECD Working Papers on Finance, Insurance and Private Pensions*, No.15, OECD Publishing

With high awareness on existence of products, holding of products can be promoted further

■ Awareness ■ Holding ■ Recent purchase

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%



- High basic awareness of existence of products
- 90% of respondents have savings accounts and 75% have ATM cards to access banking services
- Financial education on product features, benefits and costs can increase holding of new financial products or benefit from products currently held

Survey identified some consumer vulnerabilities for financial inclusion and education intervention

Low literacy in specific components

Knowledge

- Compounding interest
- Concept on diversification of risks

Behaviour

- Insufficient information gathering before acquiring financial products
- Lack of comparative shopping

Attitude

- Lack of cashflow and financial planning

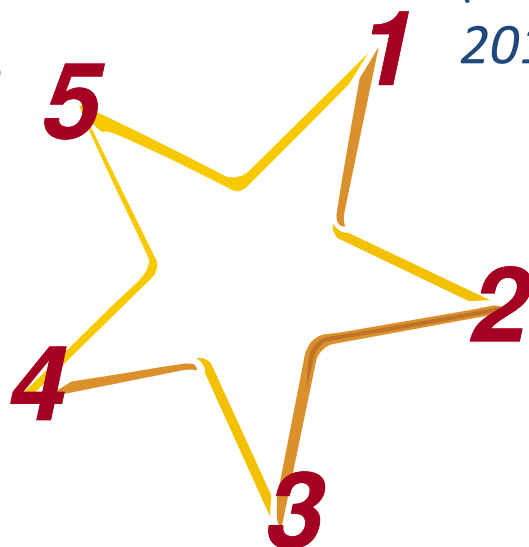
Other observations

- Financial literacy runs parallel to education level
- Lower literacy for respondents with low household income
- Higher literacy for respondents in Central region
- High awareness on existence of products, with potential to increase product holding

Examples of evidence-based initiatives to enhance financial literacy & to promote financial inclusion

*Strengthen enabling infrastructure for **easy access to FE information**, eg. single interface platform/portal & mobile application*

*Enhance **outreach to low literacy regions – BNM MobileLINK & consumer engagement at semi-urban & non-urban areas***



*Start financial education (FE) at **an early age** - integrate FE elements into school curriculum (to be implemented beginning 2014)*

*Empower young adults & first time borrowers to manage finances & deal with financial service providers with confidence – **POWER!** programme*

Vulnerable groups as targets for financial capability programme – financial literacy programme for low income households

Financial education at an early age is key...

Objective: Inculcate money management habits among students at a young age

FE in curriculum

- Collaborate with MOE to integrate financial education into school curriculum (work in progress)
- Integrate FE elements in selected key subjects:
 - i. Money, Source of Income and Career Choice
 - ii. Financial Responsibility and Decision Making
 - iii. Money Management and Planning
 - iv. Savings and Investments
 - v. Credit and Debt Management
 - vi. Risk Management, Wealth Protection and Insurance

FE in co-curriculum

- School Adoption Programme (since 1997) – Adoptive banks conduct activities related to banking, insurance and basic financial knowledge in 10,000 adopted schools
- School Financial Club (since 1999)
- Making available FE materials, tools & information
 - Pocket Money Booklet – since 1999
 - Interactive website *duitsaku.com* – since 2004
 - Workshop for teachers – equip teachers with knowledge & skills in money management

Tailored programmes for identified target groups

POWER! Programme

Manage your finances with confidence

POWER!

pengurusan wang ringgit anda

POWER to be Different

POWER!
POWER! Pengurusan Wang Ringgit Anda is a practical financial education programme managed by Agensi Kaunseling dan Pengurusan Kredit (AKPK).

POWER! is designed to equip you with essential financial knowledge, providing you the confidence and ability to make responsible financial decisions.

Get powered now!




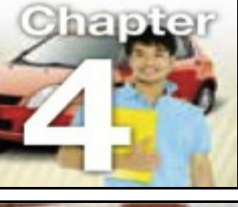



Reserve Your Free Seats Now!
1800 88 2575
www.akpk.org.my

THIS PROGRAMME IS DESIGNED FOR
PG-18 AGE 18 & ABOVE

AKPK
Agensi Kaunseling dan Pengurusan Kredit
Credit Counseling and Debt Management Agency

- A targeted education programme conducted by AKPK for young individuals and first-time borrowers aged between 18 - 30 years
- Provide skills and knowledge to effectively manage finances
- Provides useful information, tips and a financial toolkit to encourage prudent money management and financial discipline
- Highlights consequences of financial decisions in real life situations, focusing on common financial products such as credit cards, hire purchase and housing loans

POWER! Programme focuses on key financial disciplines

 Chapter 1	Module	Key Contents
 Chapter 2	Cash flow management	<ul style="list-style-type: none">• Smart living: identify needs and wants• Develop personal budget and cash flow/ net worth statement• Knowing financial position and net worth
 Chapter 3	Borrowing Basics	<ul style="list-style-type: none">• Common sources of personal credit & key features of credit facilities• Key lending criteria• Cost of borrowing & setting own debt limit• Rights & responsibilities of a borrower
 Chapter 4	Using A Credit Card	<ul style="list-style-type: none">• Different types of cards i.e. debit card, credit card & charge card• Understanding terms & conditions of credit cards• Using credit cards wisely• Responsibility to protect credit cards
 Chapter 5	Buying A Car	<ul style="list-style-type: none">• Factors to consider when buying a car - affordability, maintenance expenses• Terms & conditions of hire purchase agreement - term charges, early settlement & repossession
 Chapter 6	Buying A House	<ul style="list-style-type: none">• Buying a house -- affordability, types of house ownership, location, etc• Understanding terms & conditions of housing loans/house financing• Understanding rights & responsibilities of a borrower• Consequences of default
 Chapter 6	The Importance of Managing Your Debts	<ul style="list-style-type: none">• Contributions to over- indebtedness & consequences• Importance of building & maintaining good credit history• Advisory & redress services available to assist in better debt management

Reaching out to vulnerable groups of consumers



Financial Capability Programme – 1AZAM

- A targeted financial capability programme conducted by Credit Counselling And Debt Management Agency (AKPK) in collaboration with relevant ministries
- Target poor households (with household income below RM1,000)
- Focuses on knowledge and skills to
 - effectively manage household budget; and
 - cultivate savings habits
- The programme is expected to benefit approximately 120,000 low income households by year 2015

MobileLINK



- Introduced in December 2011 to provide and innovative channel for consumers in semi-urban and non-urban areas to interface with BNM
- Serves consumers through the deployment of a custom-made coach equipped with facilities and technologies
- Provides an avenue for BNM to engage directly with consumers and gather feedback



Financial Awareness Week 2011 was implemented in Kedah

Reaching out to the vulnerable groups at Northern region of Peninsular Malaysia

Enabling infrastructure to support financial education initiatives are being strengthened for more effective implementation

- Elevate the usefulness of consumer education websites through creation of a single interface platform for easy access and with more interactive features for meaningful interaction on issues relevant to financial consumers
- Financial customer centric **mobile applications are being developed** for real time access to key information and alerts both on iOS and android platforms (including leveraging on push technology)

bankinginfo - 26 booklets published. Also provides budget calculator, financial calculator, comparative tables, etc.



insuranceinfo - 25 booklets published. Also provides car premium calculator, consumer checklists, etc.



Islamicfinanceinfo - info on Islamic banking and takaful products and services, concepts, principles and tools to manage finances



Thank you



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

The Banque de France experience¹

Jacques Fournier, Bank de France

¹ This presentation 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.

IFC workshop on Financial Inclusion Indicators

Session 5 The Banque de France Experience

Jacques Fournier, IFC Executive Member,
Banque de France

OBJECTIVES

The Banque de France experience on financial inclusion.

3 main aspects:

1. Giving everybody access to bank services
2. Promoting micro-credit
3. Reducing over-indebtedness

1. GIVING EVERYBODY ACCESS TO BANK SERVICES

- Use of banks is at a record high in France as in most European countries.
- Still, access can be denied to very poor people, which is problematic for many reasons.
- In Europe, 30 million people do not have access to bank services.
- In France, everybody has a legal right to open a bank account. The Banque de France designates a commercial banks if need be.

- The industry in collaboration with the Central Bank has implemented an ‘alternative services package’ including a ‘payment card with systematic authorization’ (PCSA) for each operation.
- The Banque de France is monitoring via specific data collection the specific services delivery and its consistency with individual requests and local poverty. At the end of 2011, 5,6 million PCSA had been distributed, among them 1,8 million issued in 2011.

2. PROMOTING MICRO-CREDIT

Micro-credit means in France:

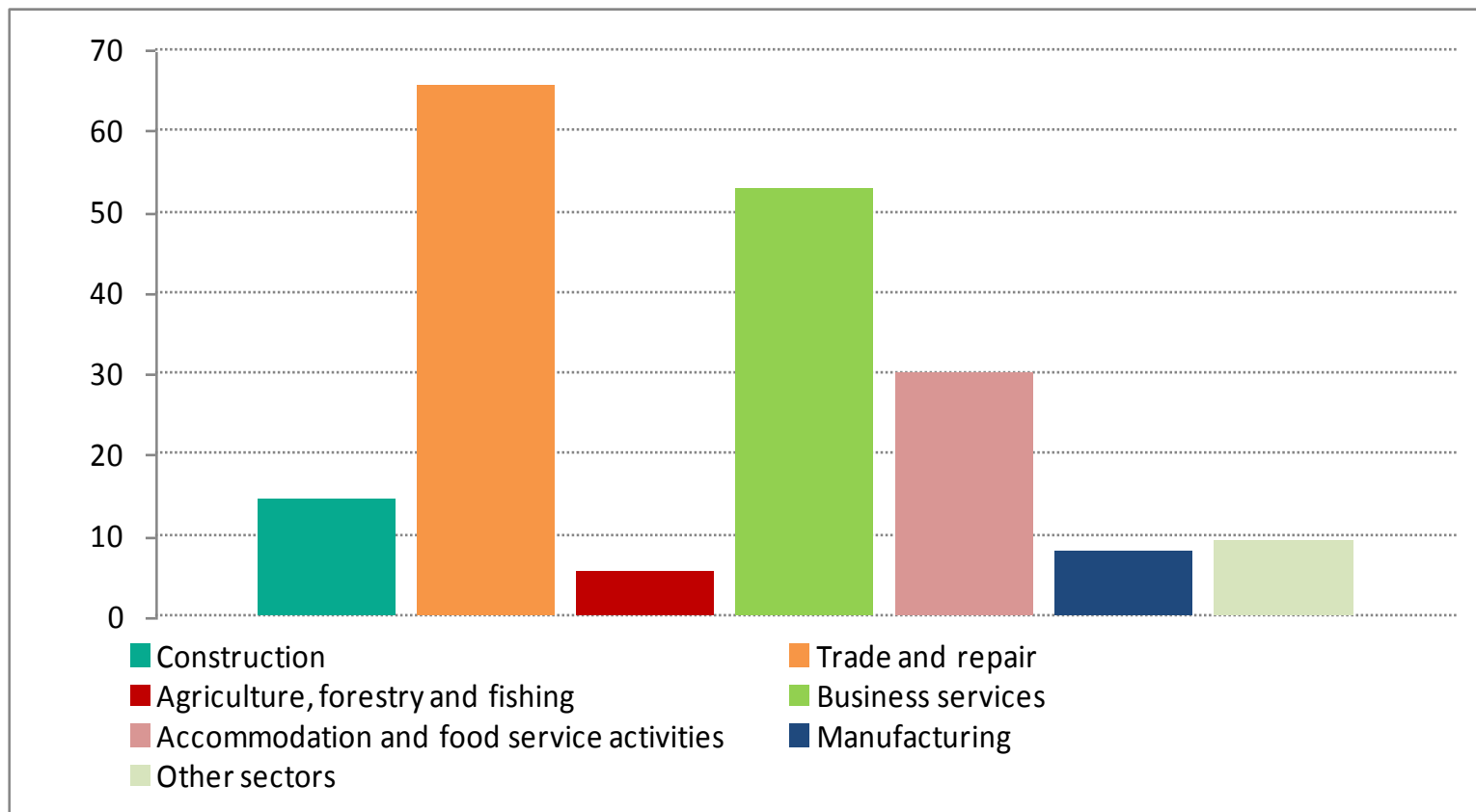
- Individual amounts less than 25 000 euros for ‘professional’ micro-credit and 3 000 euros for ‘personal’ ones.
- Beneficiaries are selected and their projects are sponsored by charitable associations, which are part to the funding, or grant guarantees.

- The Banque de France has collected, since June 2011, a detailed biannual reporting on micro-credits; respondents are charitable associations and banks.
- The goal is to measure, support, and assess, as some (still tentative) performance indicators are embedded in the data.
- Doubtful or impaired loans are rather scarce.

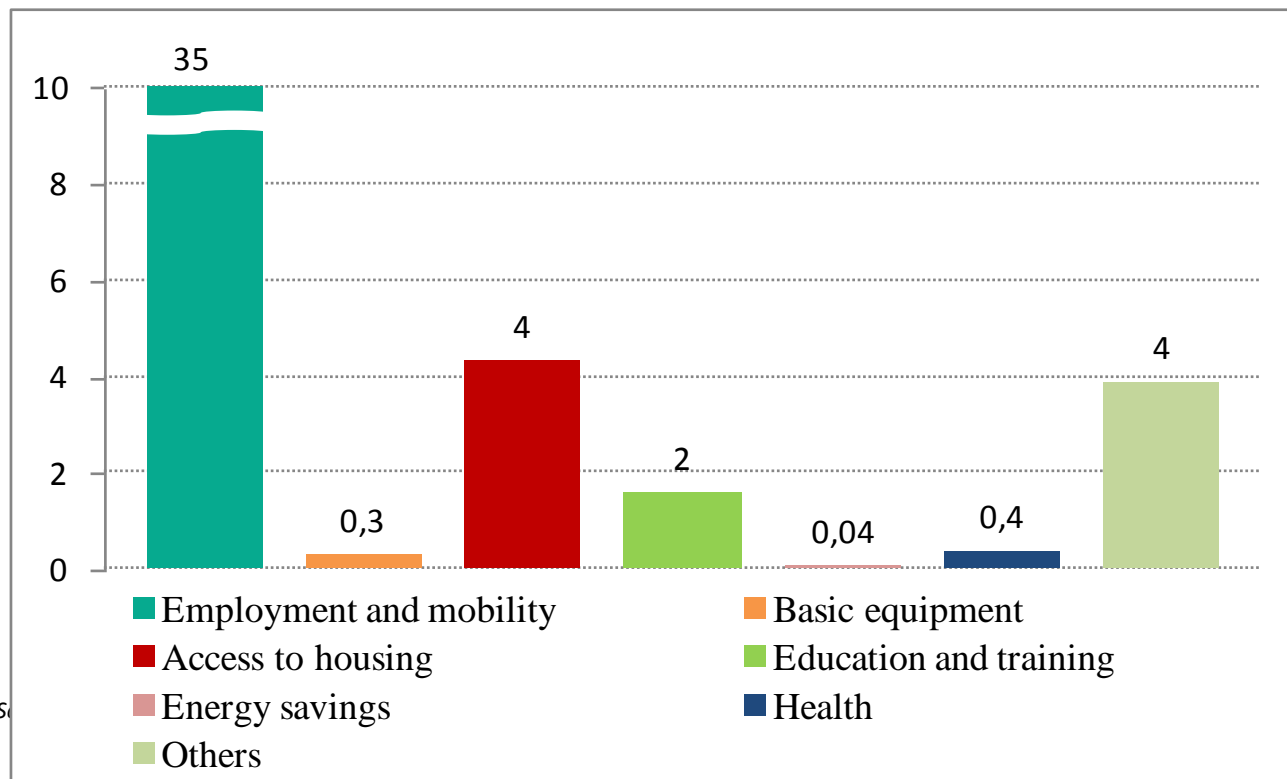
Micro-credits statistics (end 2011)

	Outstanding amounts		Number of loans	
	in million euros	in %	in units	in %
Professional micro-credits	602	93	128 161	82
- regular micro-credits (<i>interest rate >0%</i>)	186	29	39 640	26
- equity funds (<i>interest rate =0%</i>)	416	64	88 521	56
Personal micro-credits	46	7	28 734	18
Total	648	100	156 895	100

Professional micro-credits (million euros, end 2011)



Personal micro-credits (million euros, end 2011)



3. REDUCING OVER-INDEBTEDNESS

- Banque de France Database on households defaults : helps banks to avoid granting loans to insolvent people.
- Still, revolving loans are the main trigger of over-indebtedness.

2 LINES OF ACTION

1. A new regulation (as of July 2010) aims at encouraging credit institutions to develop amortized loans, in particular via capping revolving interest rates. Data are collected, compiled and analysed by the Banque de France.
2. The Central Bank can be asked by households to foster restructuring plans. If the Central Bank deems it possible, and if approved by the Court, the restructuring plan is implemented.

First results are encouraging:

- revolving loans reduced by 20 % in 2 years time,
- slow decrease of the over-indebtedness files in 2012 (- 2%), a modest but significant result in crisis times.

Some tentative lessons from our experience:

- Micro data are key to understand, analyse and regulate (if and when deemed necessary) financial inclusion.
- It seems possible for policy makers to add financial inclusion as a medium term objective with the support of banks and charitable associations.
- Statistical departments in Central banks have both the expertise and the 'neutrality' which the diverse stake holders can leverage on to proceed.



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Putting data to work: data-driven approaches to strengthening neighborhoods¹

Joseph Firschein, Board of Governors of the Federal Reserve System

¹ This presentation 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.



Putting Data To Work: Data-Driven Approaches to Strengthening Neighborhoods

Joseph Firschein

Deputy Associate Director, Division of Consumer and Community Affairs

Board of Governors of the Federal Reserve System

Workshop on Financial Inclusion Indicators

Kuala Lumpur, Malaysia

November 5-6, 2012

*The views expressed in this presentation are my own and are not necessarily
the views of the Federal Reserve Board of Governors*

Introduction and Organizational Context

- Role of the Federal Reserve Board's Division of Consumer and Community Affairs (DCCA)
- Role of the Federal Reserve System Community Development function:
 - Connection to the Fed's broader mission to support economic growth, financial stability, and community reinvestment particularly in low- and moderate-income communities
 - Work with 12 Federal Reserve Banks to convene external stakeholders (bankers, nonprofit intermediaries, academic organizations, foundations), conduct applied research, and identify emerging issues affecting low- and moderate-income communities and consumers

Defining the Problem and the Opportunity

- Problem:
 - As city and county governments seek to improve neighborhood real estate markets and respond to the problem of vacant and abandoned properties, they often have data scattered in different locations or a lack of a process to effectively use available data
 - Communities also have a mismatch between the size of their foreclosure and neighborhood stabilization needs and available public resources
- Opportunity:
 - Technology is permitting improvements in the development and integration of local data systems whose costs are decreasing
 - Data-driven decisionmaking can improve resource allocation decisions by the public sector, supporting economic growth and neighborhood reinvestment

Key Players In This Work

- In addition to the technology and data aspect of this work, there is an equally important people-based element required to assemble the right coalition of partners who can develop and use this data
- City and county governments are the primary target of these efforts, supported by university- and nonprofit-based data intermediaries
 - For example, intermediary groups in 35 U.S. cities have formed a network, the National Neighborhood Indicators Partnership (NNIP), to expand data use capacities in other localities and advance the state of the art in the field (www.neighborhoodindicators.org)

Federal Reserve Role

- The Fed has played a convening role: bringing together public sector officials with others (public sector, nonprofit, academic) who have expertise on strategic use of data
 - Public sector participants see the Fed as a trusted source: we have experience working with data, we are not trying to sell a data system, and we aren't looking for funding
- The Fed has also played an information sharing role: identifying case studies on barriers and promising practices on strategic use of data
 - Examples include the “Putting Data to Work” publication
 - Video case studies: Cleveland, Detroit, and Phoenix
 - Sharing information via regional meetings in partnership with Federal Reserve Banks

Example from Cleveland, Ohio

- Involved a coalition of nonprofit, academic, and City staff working together to analyze property maintenance patterns for bank-owned foreclosed properties
- Was valuable for targeting limited enforcement resources: resulted in a preliminary injunction against a major bank that owned many foreclosed properties but was not adequately maintaining them
- Provided early warnings on imminent foreclosure problems and enabled a more strategic approach to neighborhood stabilization
- Significant focus on transparency of data and involvement of nonprofit and academic partners
- See the Fed's Cleveland video case study referenced on the "additional resources" slide at the end of this presentation for more info on this approach



Neighborhood Stabilization Team
Slavic Village
 November 23, 2011

Center on Urban Poverty and Community Development
 povertycenter.case.edu ■ neocando.case.edu



Example of Market Value Analysis (MVA) Approach

- Developed by The Reinvestment Fund (TRF), a strong nonprofit policy and lending organization in Philadelphia, Pennsylvania
- Analyzed parcel-level data and developed market types and associated interventions
- Based on assumption that public subsidy is scarce and it alone cannot create a market; subsidy must be used to leverage, or clear the path, for private investment
- This approach was used in Baltimore, Maryland to implement a market-based approach to vacant property redevelopment (“Vacants to Value” initiative)
- See articles by Goldstein (page 49) and Janes and Davis (page 79) in the Fed publication for more info on this approach

Market Cluster Characteristics

Market Value Analysis 2007/2008			Median sales price 2006-2007	Coefficient of Variance of Sales price 0607	Vacancy factor	Foreclosures as a percent of sales 0607	Percent Owner Occupied 2007; Claritas	Percent Commercial or Stores with Dwellings; (BRT cat 3,4)	Percent of Residential Properties Tax Abated or Built 2000-2008; BRT	Percent of Rental Units that are PHA owned	Housing Units per Acre
Regional Choice/ High Value	Dark Purple	Median	\$ 960,450	0.47	0.4	12.5	90.3	4.4	3.4	0.0	0.8
		Mean	\$ 928,670	0.45	0.5	37.5	74.4	5.4	4.0	0.0	4.3
	Medium Purple	Median	\$ 550,000	0.54	0.3	4.4	29.9	6.1	4.5	0.0	18.9
		Mean	\$ 576,436	0.51	0.6	8.3	34.1	6.9	15.5	0.4	20.7
	Light Purple	Median	\$ 351,250	0.38	0.6	7.7	49.8	4.3	3.7	0.0	13.5
		Mean	\$ 360,387	0.41	1.1	17.2	48.5	7.5	11.5	0.7	17.5
Steady	Dark Blue	Median	\$ 220,000	0.28	0.6	14.6	64.0	3.2	0.7	0.0	8.4
		Mean	\$ 224,727	0.31	1.1	18.9	61.3	6.1	3.9	0.6	10.5
	Light Blue	Median	\$ 171,000	0.28	0.6	29.1	62.5	2.9	0.0	0.0	9.5
		Mean	\$ 179,421	0.32	1.2	39.2	60.4	5.3	1.3	0.5	10.9
Transitional	Light Yellow	Median	\$ 124,000	0.29	1.2	27.4	76.9	2.8	0.0	0.0	12.6
		Mean	\$ 125,974	0.32	1.9	36.0	71.0	4.4	1.0	0.8	12.6
	Dark Yellow	Median	\$ 80,000	0.41	4.3	39.2	68.5	3.4	0.0	0.0	12.7
		Mean	\$ 82,226	0.45	5.0	46.0	63.9	5.3	1.1	2.7	12.5
Distressed	Orange	Median	\$ 49,925	0.55	9.5	45.5	63.6	4.0	0.0	0.9	13.1
		Mean	\$ 50,325	0.56	9.8	52.1	61.0	5.6	0.3	3.2	12.9
	Red	Median	\$ 28,875	0.75	13.8	27.1	55.6	4.0	0.0	3.8	12.1
		Mean	\$ 27,153	0.81	13.7	32.7	52.9	5.6	0.4	10.8	12.5
City Total		Median	\$ 105,900	0.42	2.9	27.5	62.3	3.7	0.0	0.0	11.2
		Mean	\$ 137,701	0.47	5.3	35.5	58.6	6.3	2.3	3.0	12.2

Using Data at Different Levels of Experience

- A data-driven approach to neighborhood stabilization doesn't have to be focused on cities that have an elaborate or expensive data infrastructure
- There are steps that can be taken in communities at different levels of experience: beginning, intermediate, and advanced
- The first step is to identify stakeholders (both inside and outside local government) and acquire the relevant data
- See article by Petit and Kingsley starting on page 17 of the Fed publication for examples of steps that can be taken at these different levels of experience

Considerations for Other Central Banks Interested in This Work

- Identify and share information on success stories: communities won't do this work unless they see tangible example of others who are getting value from the effort
- Make clear that this does not have to involve significant new technology spending and can apply to public entities at different levels of data sophistication
- The central bank is not providing the data or advising local governments on how to use it
- The central bank is a neutral convener of stakeholders and a source of information on barriers and promising practices related to this work

Additional Resources

- Web location of “Putting Data To Work” publication:
www.federalreserve.gov/communitydev/files/data-driven-publication-20111212.pdf
- National Neighborhood Indicators Partners Web site:
www.neighborhoodindicators.org
- Video case studies on neighborhood stabilization:
<http://www.federalreserve.gov/communitydev/stablecommunities.htm>
- Federal Reserve Board neighborhood revitalization info:
<http://www.federalreserve.gov/communitydev/neighborhoodrevitalization/neighborhood-revitalization.htm>

Questions?

- My contact info:

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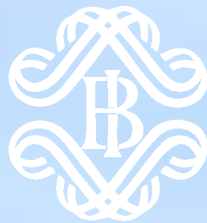
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Introduction to the OECD Handbook on composite indicators¹

Claudia Biancotti, Bank of Italy

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BANCA D'ITALIA

EUROSISTEMA

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on composite indicators**

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Bank of Italy

Economic and Financial Statistics Department

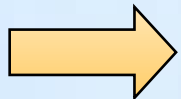
**Workshop on Financial Inclusion Indicators
IFC and Bank Negara Malaysia, Kuala Lumpur
November 6, 2012**

What is the purpose of the handbook?

- The handbook is “a guide for **constructing and using** composite indicators (CIs) for policy makers, academics, the media and other interested parties”.
- A CI is a **single number summarizing many phenomena**.
- Core dilemma on CIs: on the one hand they are **more accessible** to the public / more suited to debate compared to a wide array of single-issue indicators; on the other hand they entail a number of **potentially arbitrary choices** (components, aggregation strategies including weighting etc.)
- The handbook provides guidelines aimed at minimizing the arbitrary element by implementing **optimality principles** and communicating contents **transparently**
- CIs **may be suited for some phenomena and not for others!**

Some examples

- **Ease of Doing Business:** computed by the World Bank, covers sub-items on fiscal regulation, enforcement of contracts, access to credit etc.
- **Well-being:** “dashboard approach” (GDP, inequality, environmental quality, life satisfaction...) vs CI: ample discussion following the Sen-Stiglitz-Fitoussi report
- **Financial Development Index:** computed by the World Economic Forum, includes several dimensions ranging from risk of sovereign debt crisis to performance of capital markets
- **Technology Achievement Index:** computed by the UN, covers four dimensions of innovation; used as an example throughout the handbook



Financial inclusion is a multi-dimensional phenomenon (access/usage; households/firms; actual/perceived etc.) hence a natural candidate for CIs

From the handbook: pros and cons of CIs

Pros:	Cons:
<ul style="list-style-type: none">• Can summarise complex, multi-dimensional realities with a view to supporting decision-makers.• Are easier to interpret than a battery of many separate indicators.• Can assess progress of countries over time.• Reduce the visible size of a set of indicators without dropping the underlying information base.• Thus make it possible to include more information within the existing size limit.• Place issues of country performance and progress at the centre of the policy arena.• Facilitate communication with general public (<i>i.e.</i> citizens, media, <i>etc.</i>) and promote accountability.• Help to construct/underpin narratives for lay and literate audiences.• Enable users to compare complex dimensions effectively.	<ul style="list-style-type: none">• May send misleading policy messages if poorly constructed or misinterpreted.• May invite simplistic policy conclusions.• May be misused, <i>e.g.</i> to support a desired policy, if the construction process is not transparent and/or lacks sound statistical or conceptual principles.• The selection of indicators and weights could be the subject of political dispute.• May disguise serious failings in some dimensions and increase the difficulty of identifying proper remedial action, if the construction process is not transparent.• May lead to inappropriate policies if dimensions of performance that are difficult to measure are ignored.

Choices involved in the creation of a CI

- 1) Development of a **theoretical framework**
- 2) Choice of **individual indicators** to draw upon
- 3) **Data treatment/analysis** for individual indicators
- 4) **Weighting and aggregation** of individual indicators
- 5) **Sensitivity and robustness** analysis for the CI(s)
- 6) **Reverse engineering** (performance of CI vs individual indicators)
- 7) Choice of a **presentation/visualization** strategy
- 8) Analysis of the CI(s) **in relation to other relevant variables**

Theoretical framework

Conceptual exercise: **what is it that we want to measure**? What is the nature of the phenomenon and what are its components? May draw on economic theory, policy practice etc; should be theoretically sound, detailed, structured (input/output/process components) and appropriate to the goal chosen for the CI

Examples: financial inclusion as defined by the Indian Economic Service is first articulated around the “where”; the G20 Action Plan is first articulated on the “what”, i.e. **access, usage, quality, formality and impact** of financial services. Likely to point out different weaknesses at first sight!



Choosing individual indicators

Step	Why it is needed
<p>2. Data selection</p> <p>Should be based on the analytical soundness, measurability, country coverage, and relevance of the indicators to the phenomenon being measured and relationship to each other. The use of proxy variables should be considered when data are scarce (involvement of experts and stakeholders is envisaged at this step).</p>	<ul style="list-style-type: none">• To check the quality of the available indicators.• To discuss the strengths and weaknesses of each selected indicator.• To create a summary table on data characteristics, e.g., availability (across country, time), source, type (hard, soft or input, output, process).

Data treatment and analysis (individual indicators)

- **Imputation** of missing values: analysis of missingness patterns (MCAR, MAR...); single/multiple imputation; model-based/hotdeck...; strategy for outliers; trimming of input/output.
- Dimensionality-reducing **multivariate analysis**: principal component/factor/ correspondence/cluster analysis to detect correlation patterns in the data, check for relevance of variables, decomposition of variance, influence of individual dimensions on (some) optimal linear aggregations.
- **Normalization**: ranking, qualitative scores, standardization, benchmarking etc. to avoid the apples-and-oranges problem

Weighting and aggregation

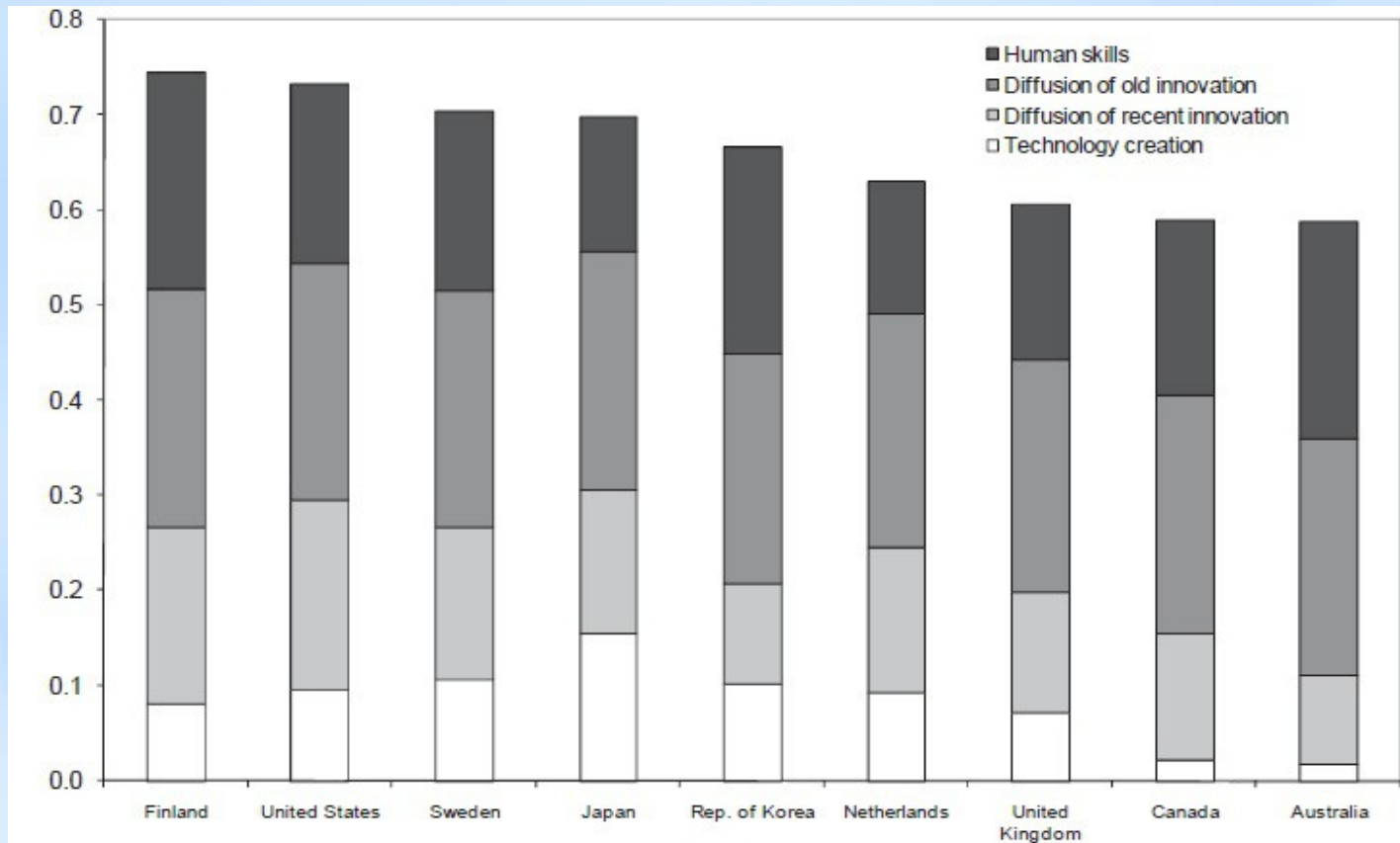
- **Trickiest part of the process!** Once dimensions are selected, their relative relevance needs to be determined. **Weighting:** is access to microcredit more or less important than access to affordable health insurance? **Aggregation:** should financial literacy enter a CI indicator of inclusion arithmetically or geometrically?
- Major issue at stake: marginal utility of each dimension, hence **trade-off between indicators** (compensation: good or bad?)
- Should be **very soundly justified** from a theoretical standpoint; a measure of **data-driven choices** (e.g. to account for correlation) is OK but such choices should be transparent

Sensitivity and robustness analysis

Standard good econometric practice (results should not be excessively sensitive to methodological choices). Effects of...

1. Inclusion and exclusion of individual indicators.
2. Modelling data error based on the available information on variance estimation.
3. Using alternative editing schemes, *e.g.* single or multiple imputation.
4. Using alternative data normalisation schemes, such as Mini-Max, standardisation, use of rankings.
5. Using different weighting schemes, *e.g.* methods from the participatory family (budget allocation, analytic hierarchy process) and endogenous weighting (benefit of the doubt).
6. Using different aggregation systems, *e.g.* linear, geometric mean of un-scaled variables, and multi-criteria ordering.
7. Using different plausible values for the weights.

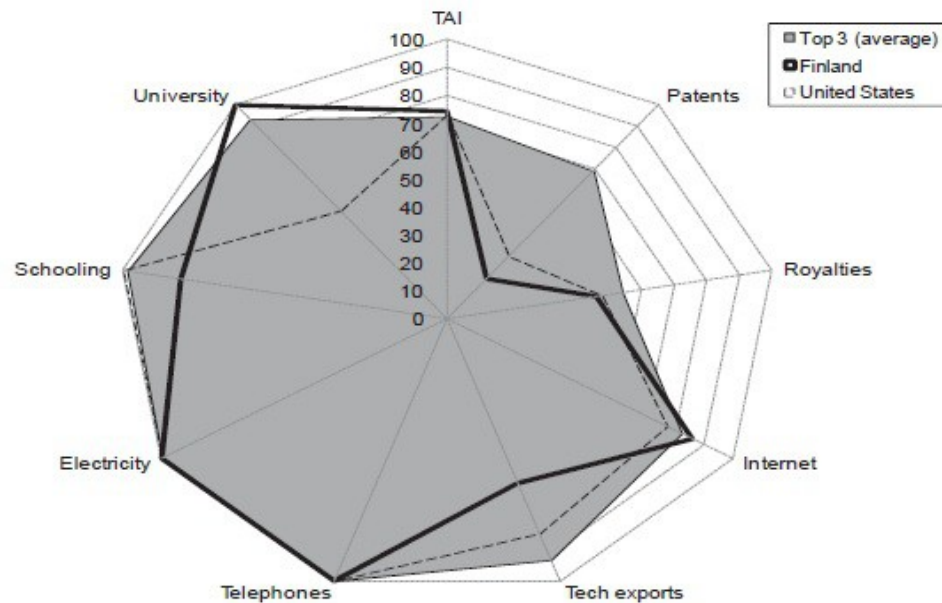
Reverse engineering, or back to the original data



Note: Contribution of components to overall Technology Achievement Index (TAI) composite indicator. The figure is constructed by showing the standardised value of the sub-components multiplied by their individual weights. The sum of these four components equals the overall TAI index.

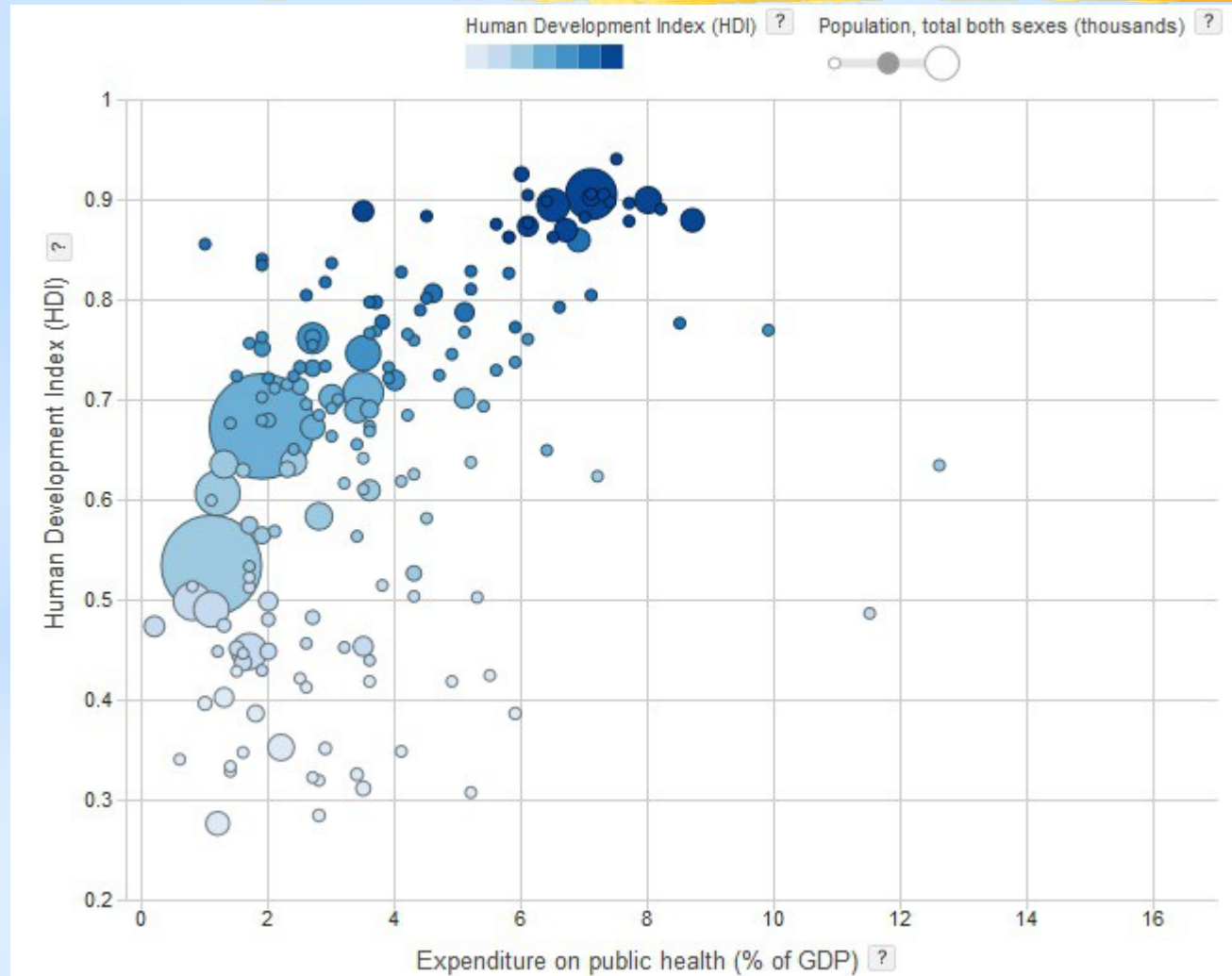
Presentation and visualization strategies

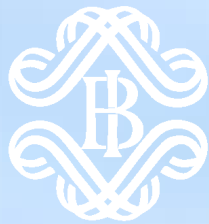
Appropriate representation depends on **core message**: e.g. tabular representation (rankings) draws attention on the **best overall performer**, spider diagrams emphasize the **differences on individual dimensions** between a chosen country/group and others... should be **clear, consistent, transparently motivated**.



Note: Technology Achievement Index (TAI). Finland is compared to the top three TAI performers and to the United States. The best performing country for each indicator takes the value 100, and the worst, 0.

Relationship to other relevant variables





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Thank you for your attention!



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

Building a financial inclusion index for Mexico¹

José Luis Negrin, Bank of Mexico

¹ This presentation 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.



Building a Financial Inclusion Index for Mexico

Prepared for the Workshop on Financial Inclusion Indicators.

Bank Negara, Malaysia, Kuala Lumpur, November, 2012

José L. Negrin. Manager of Financial Services Analysis

Disclaimer: these presentation reflects the point of view of the author and not necessarily that of Banco de México



BANCO DE MÉXICO

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- 1. Motivation and Goals**
- 2. Background on Financial Inclusion**
- 3. Building an Index of Financial Inclusion**
- 4. International Financial Inclusion Index**
- 5. Regional Financial Inclusion Index**
- 6. Final Comments**

Motivation and goals

- Evidence shows that Financial Inclusion (FI) may benefit society:
 - Instrument to fight poverty, increase income, savings and employment;
 - Allows families to better smooth their consumption.
- It is not clear how to measure FI: there are many financial services and therefore many dimensions.
- An index provides an aggregation mechanism to reduce a vector of dimensions into a number (scalar).
- In this presentation we discuss the application of a FI index (FII) to the Mexican case.
- We illustrate a number of issues that arise when using a FII and derive some (hopefully) useful lessons from this application.

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What is FI and how to measure it

- There is no consensus definition of FI:
 - Mexican Banking Commission: “Financial Inclusion refers to the **access** and **use** of a financial products and services portfolio that reaches the **vast majority** of adult population with clear and concise **information** to satisfy the growing demand, under an appropriate **legal framework**”.
 - CGAP: “FI means that **all** working age adults have **effective access** to credit, savings, payments, and insurance from formal service providers. “Effective access” involves **convenient** and **responsible** service delivery, at a **cost** affordable to the customer and sustainable for the provider with the result that financially excluded customers use **formal** financial services rather than existing **informal** options”.
- Some salient features:
 - Objective population (financially excluded): usually poor people and small firms.
 - Relevant products: service diversity and access heterogeneity.
 - Three elements: **access** (related to infrastructure), **use y quality** (cost).
 - Service providers: formal (mainly banks but not only) and informal.

FI services

Financial Services:

- Deposit and savings (accounts)
 - Transactions : payment services

- Investment
 - Loans

- Insurance (including pension funds)

Channels to provide services:

- Branches
- ATM's
- POS
- Banking agents (*comisionistas*)

Means to access an account:

- Cards (debit, credit)
- Checks
- Phone/Internet
- Cell phone

Type of transactions:

- Deposits
- Cash withdrawals (at branches, ATMs, etc.)
- Payments: with cards at POS, checks or electronic transfers



What is FI and how to measure it

- A FII:
 - Reduces multiple dimensions to 1.
 - Makes all dimensions comparable: no units.
 - It provides a valuable instrument to diagnose the financial inclusion situation with respect to other countries/regions.
- Theoretically, the optimal level of access would occur when the observed usage level corresponds to a competitive environment without any frictions, given a technology (costs) and customers' preferences.
- FII allows for comparisons across countries.
- Building a FII provides a reference point: best practice within the sample.

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To build an FII

- Indexes have been mainly used in Human Development context.
- There are 2 well known FII applications (at the international level):

Sarma (2008)

$$d_{ij} = \frac{A_{ij} - m_i}{M_i - m_i}$$

$$FII_j = 1 - \sqrt{\sum_{i=1}^n \frac{(1 - d_{ij})^2}{n}}$$

■ Where:

- A_{ij} = Observed value on dimension j for country i.
- $m_i = \min_j \{A_{ij}\}$
- $M_i = \max_j \{A_{ij}\}$
- In CP, $0 < r < 1$.

Chakravarty and Pal (2010)

$$d_{ij} = \left(\frac{A_{ij} - m_i}{M_i - m_i} \right)^r$$



$$FII_j = \frac{1}{n} \sum_{i=1}^n d_{ij}$$

- To aggregate dimensions: need to normalize by population, or territory.

Characteristics of an FII

Index Characteristics		Sarma (2008)	Chakravarty (2010)
Normalization	FII has a minimum and maximum, s.t. $FII \in (0,1)$	Yes	Yes
Anonymity	Indifferent to swapping of values across dimensions. [Weighting could be appropriate in a FII – not complying with anonymity]	Yes	Yes
Monotonicity	FII should be greater(lower) if one dimension improves(worsens) and the rest stay unchanged.	Yes	Yes
Proximity	Should be such that greater (lower) value indicates that it is closer (farther from) the ideal (best practice).	Yes	No
Uniformity	A greater(lower) dispersion across dimensions should indicate a lower(greater) value.	Yes	Yes
Signaling	Unique optimal path to reach higher value.	Yes	Yes
Homogeneity	Dimension indicators should be independent to scaling.	Yes	Yes
Decreasing benefits	Lower difference in gain at higher levels of attainment difference.	Yes*	Yes
Dimension contributions id.	It should be possible to identify the contribution of each dimension to the FII.	No	Yes

FII characteristics

- We use Sarma (2008) Index: it is more intuitively appealing and “proximity” is a desirable characteristic.
- We decided to build two complementary FII for people (not firms for now):
 - Infrastructure.
 - Usage.
- We normalize dimensions by number of adults (people above 14 years old).
- Concentrate on retail services since it is directed to the most vulnerable group. In particular, in deposit and saving services, leaving credit and insurance out.
- We limit our index scope to banking services due to information availability.
- Need to determine:
 - Dimensions to be included: trade off between adding dimensions and their importance FII concavity); differential impact of low and high values. 
 - Countries to be considered: adding new countries affect if it has high or low values in the dimensions included. 

FII characteristics

- We decided to build indices for international comparisons and indices for states comparisons (within Mexico).
- International FII: to see Mexico's relative position we choose 37 countries (data for 2010), 5 five with lower, 31 with higher GDP per person.
- The national index is more important for internal policies (targets): Improve access of the poorest states; reduce inequalities between states, etc.

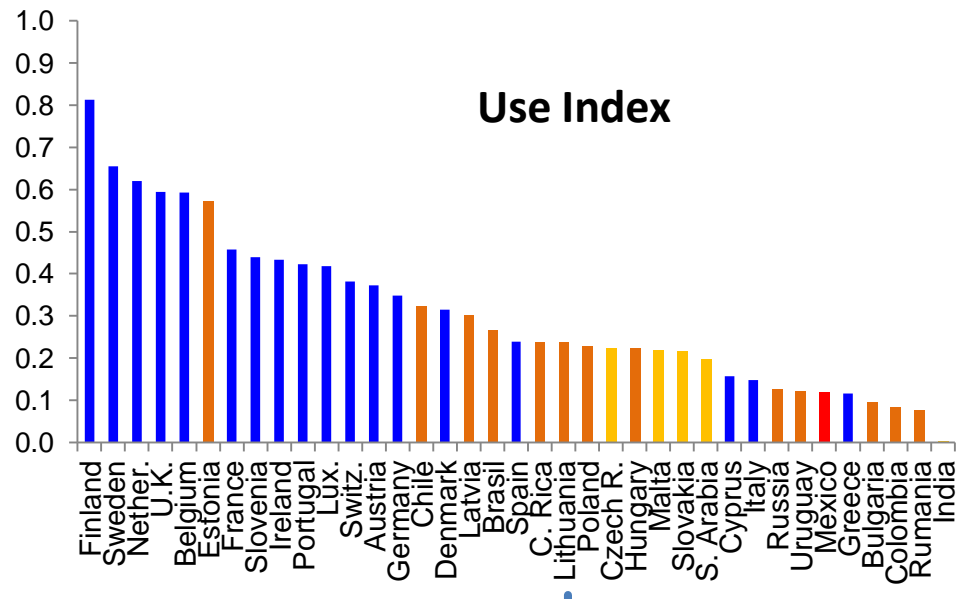
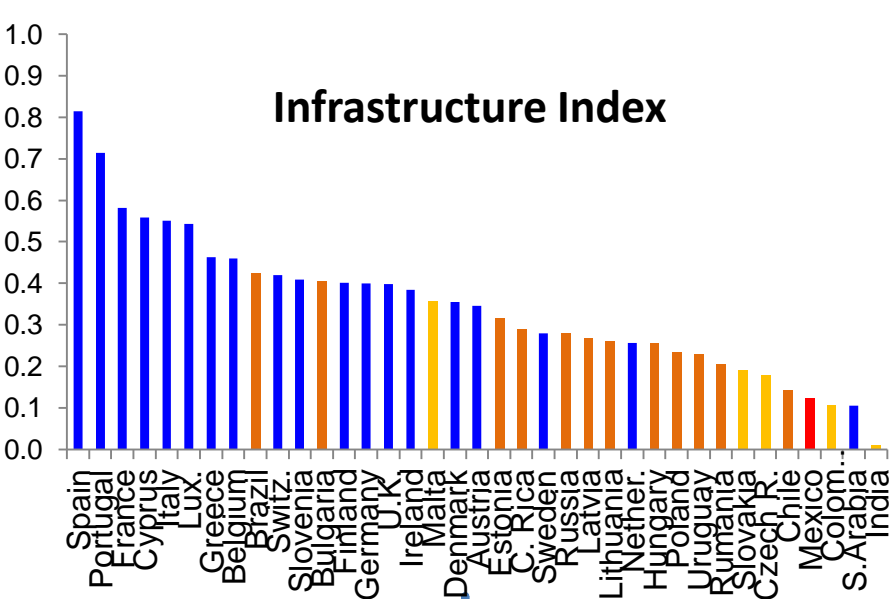
International FII	National FII
<ul style="list-style-type: none">• Allows assessment of progress relative to other countries.	<ul style="list-style-type: none">• Allows for public policy decisions.
<ul style="list-style-type: none">• Allows identification of an empirical best practice (ideal).	<ul style="list-style-type: none">• Helps to focalize regulations where needed.
<ul style="list-style-type: none">• Strong assumptions: homogenous technology across countries.	<ul style="list-style-type: none">• Data are more comparable: same technology.
<ul style="list-style-type: none">• Dimensions depend on comparable information.	<ul style="list-style-type: none">• Less restrictions for dimensions selections.

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International FII- 2010

■ 37 countries sample: more dimensions, less countries with available information.



The dimensions included are:

Number of branches
Number of ATMs
Number of POS

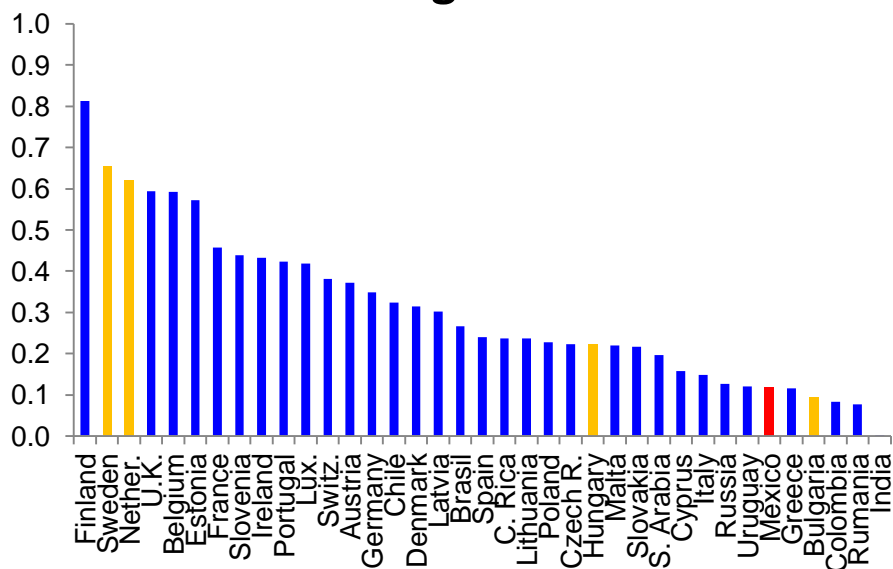
Number of transactions in ATMs
Number of transactions in POS
Number of electronic transfers

■ ¼ Std deviation from Mexico's GDP per person
■ ½ Std deviation from Mexico's GDP per person

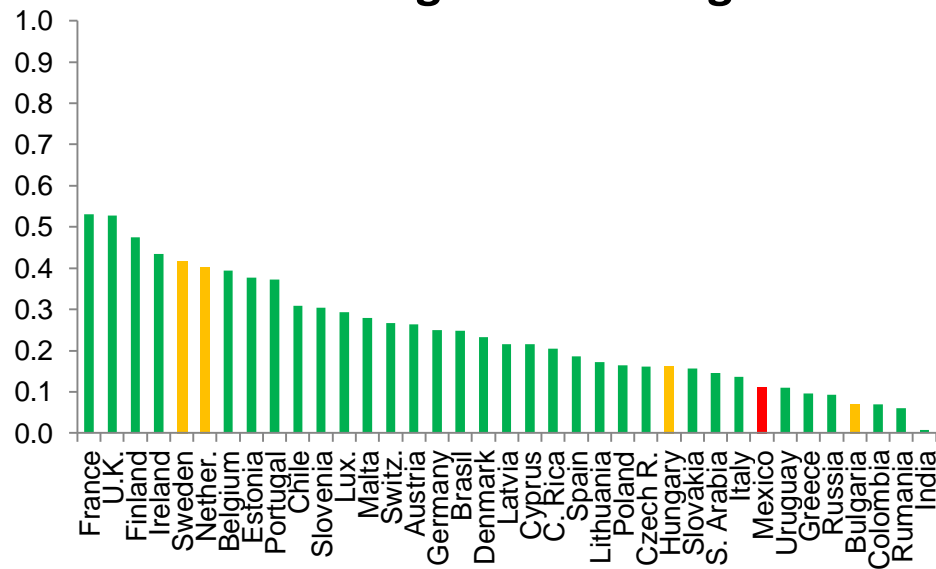
The dimensions selection

- Changing the set of dimensions changes the index outcome.

Index of usage – Without Checks



Index of usage – Including Checks

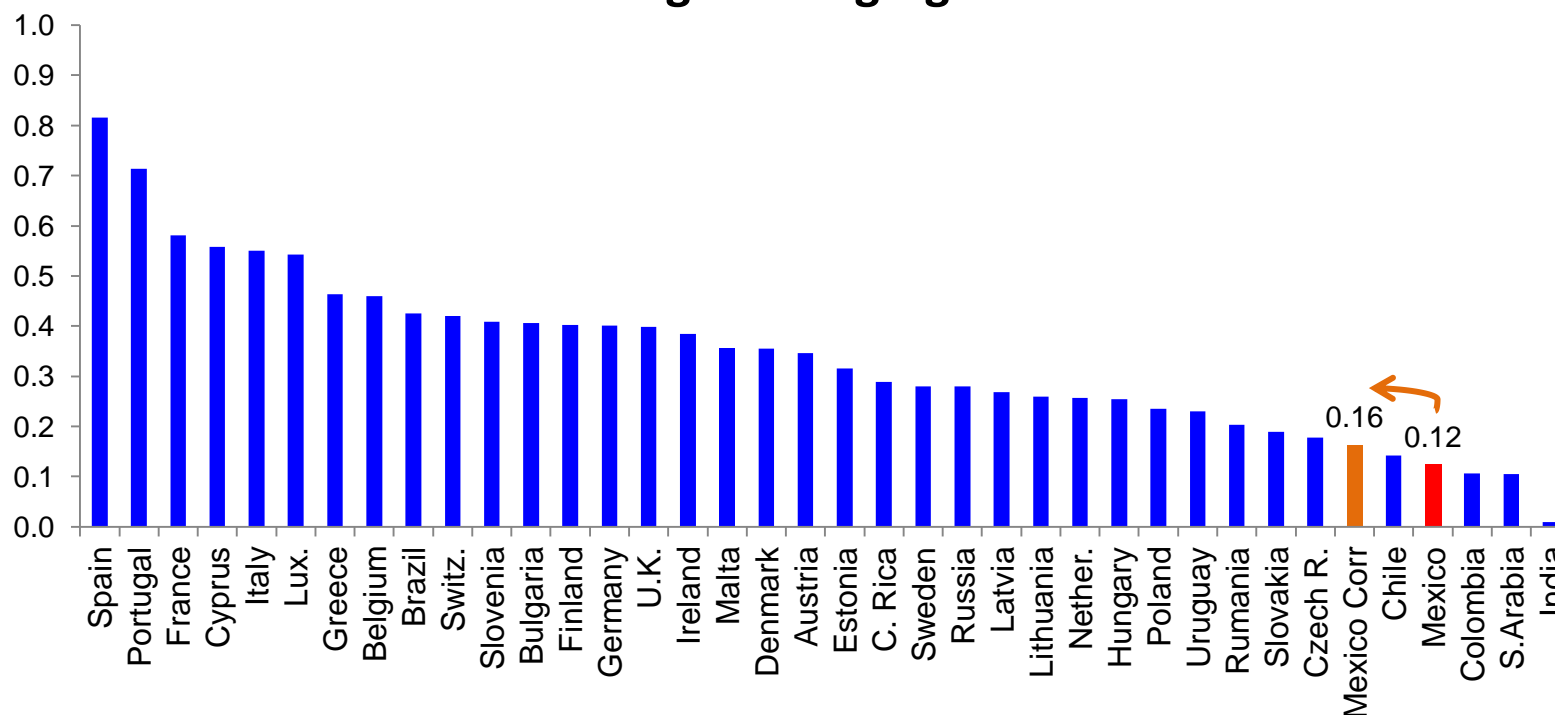


- Include the most efficient channels of service and the most payment means.
- Example: including checks in the index punishes countries that do not use them: Sweden, Netherlands and Finland.

The dimensions selection

- New infrastructure dimensions: technological changes may generate discrete changes for a country: banking agents.

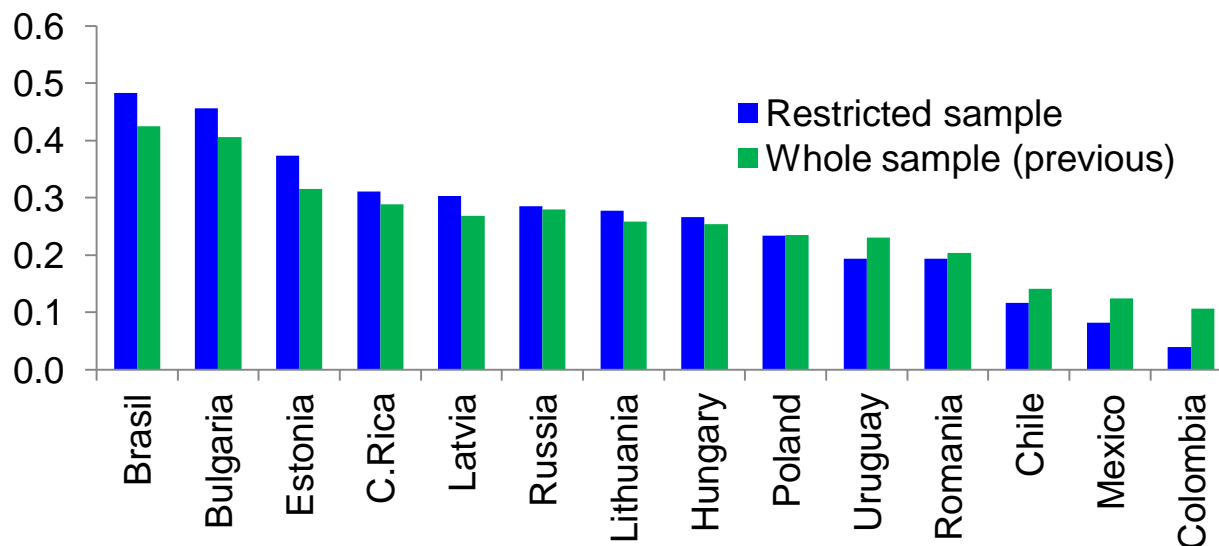
Infrastructure Index – Including Banking Agents



The country sample selection

- Differences in development, technology, institutions and habits, makes comparisons harder.
- Restricting the sample to countries similar to México (1/4 of StDev of GDP per person): moves away from the idea of best practice.

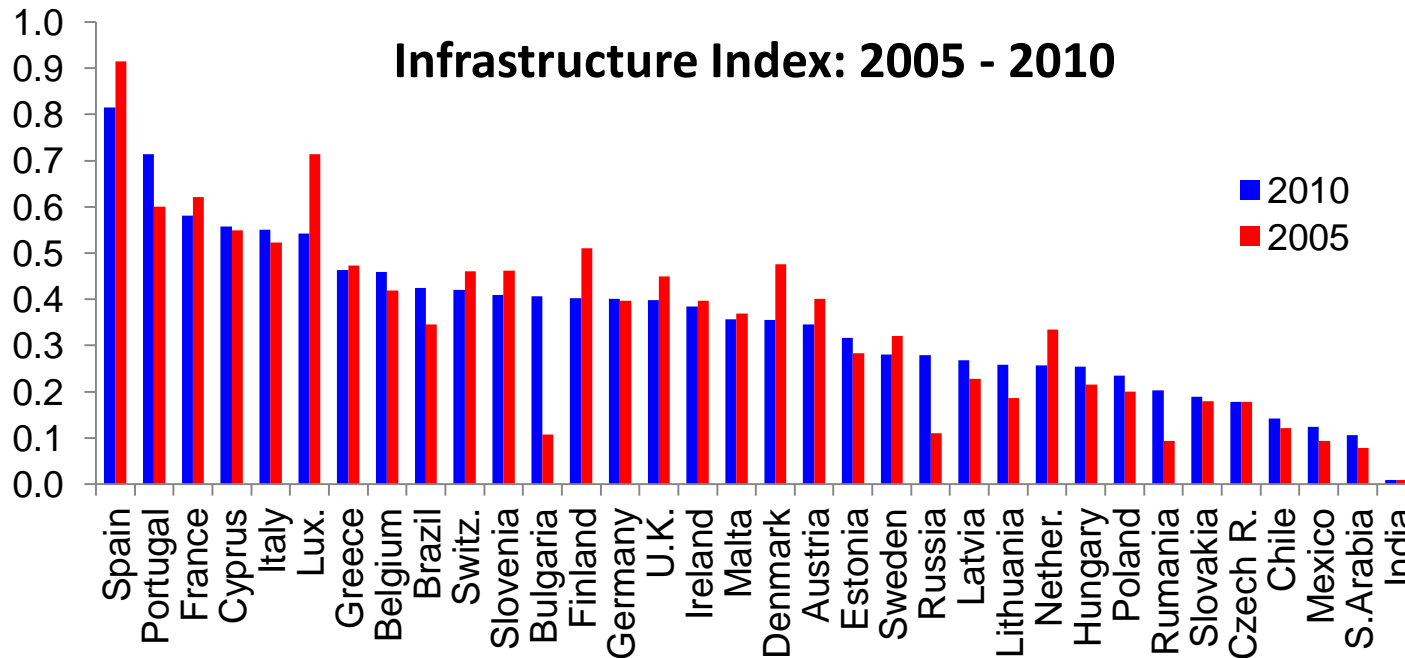
Infrastructure IIF: Using a restricted sample



- Restricting the sample does not necessarily improve the ranking position.
- It seems reasonable to consider a large but balanced sample (similar number of richer and poorer countries) and keep it stable through time.

International FII: Comparisons 2005-2010

- All FII components change through time. How do we compare?



- Spain, the country with maximum FII, suffered because of the crisis. This affects all countries' FII (not necessarily their ranking position).
- Mexico's FII improved (from 0.09 to 0.12) but its position in the ranking went down (from 31 to 32).


International FII: Comparisons 2005-2010

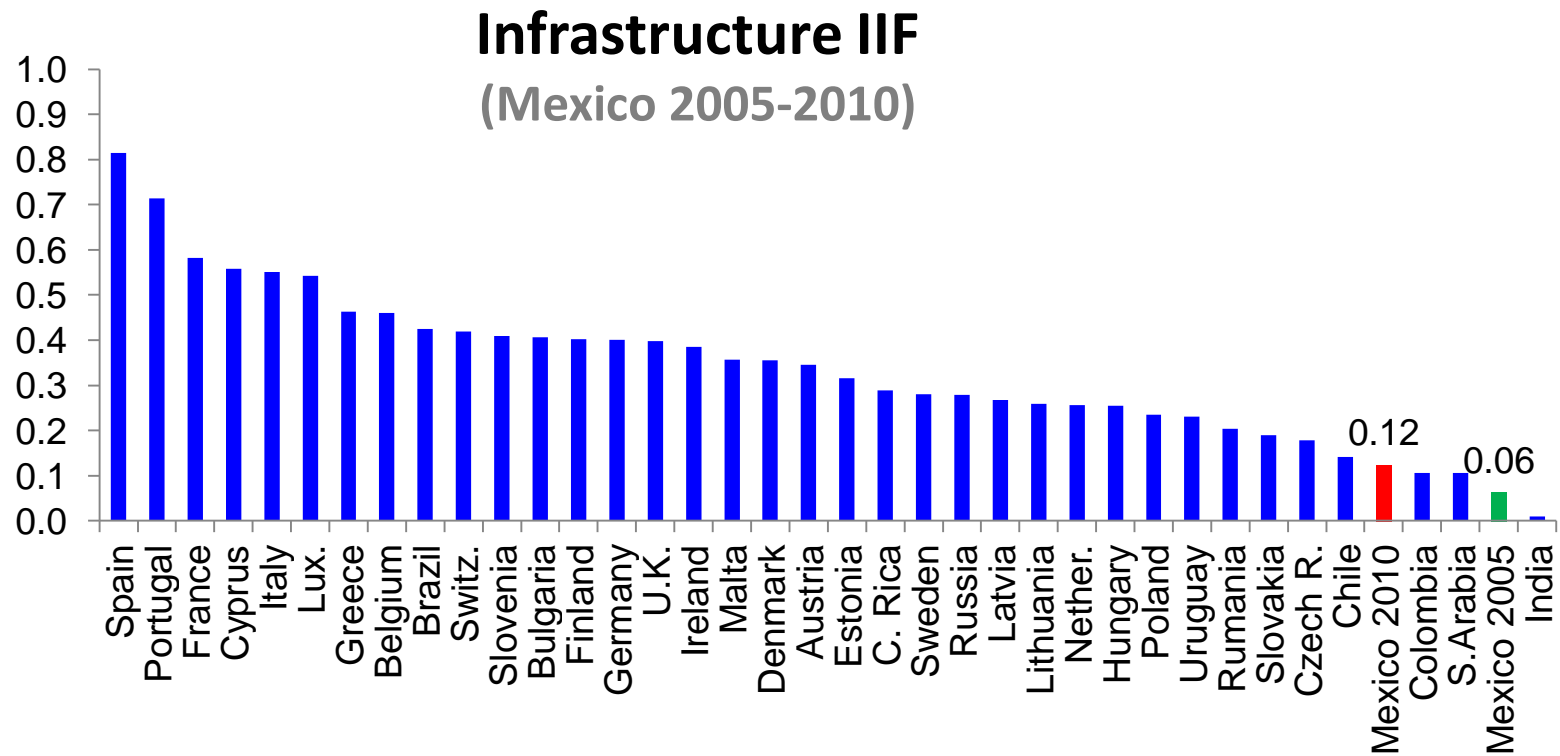
■ Selecting some countries:

- Spain and France IIF go down but they keep their position in the ranking (1 & 3).
- Greece's IIF goes down but it improves its position in the ranking (from 9 to 7).
- The Czech Republic keeps its index, but it goes down in the ranking (from 27 to 30)

	Infrastructure Index (34 countries)		Ranking of 34 countries	
	2005	2010	2005	2010
Spain	0.91	0.82	1	1
Portugal	0.60	0.71	4	2
France	0.62	0.58	3	3
Greece	0.47	0.46	9	7
Belgium	0.42	0.46	13	8
Brazil	0.34	0.42	18	9
Sweden	0.32	0.28	20	21
Russia	0.11	0.28	29	22
Czech R.	0.18	0.18	27	30
Chile	0.12	0.14	28	31
Mexico	0.09	0.12	31	32

International FII: Comparisons 2005-2010

- How do we compare? Keep something fixed: compare Mexico's values for 2005 and 2010 with the rest of the countries in 2010. There is a bigger improvement.
- Alternatively, identify countries whose index jump more. 



International FII: Comparisons 2005-2010

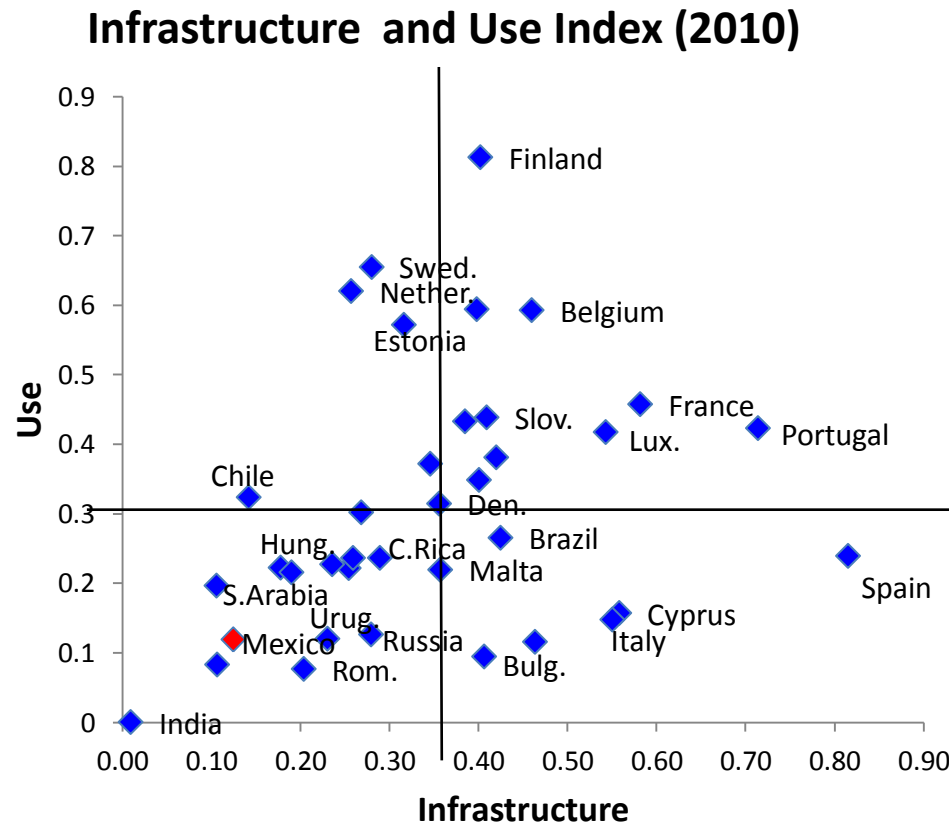
- Mexico's infrastructure FII improves in distance to the top and to the mean, but increases in distance to the mean in SD units. The opposite occurs in usage.

	Infrastructure Index		Use Index	
	2005	2010	2005*	2010
Mean	0.348	0.344	0.308	0.319
Standard Dev.	0.203	0.169	0.187	0.236
Max	0.915	0.815	0.813	0.915
Min	0.009	0.009	0.001	0.000
Mexico's IIF	0.093	0.124	0.136	0.119
Distance to the Max	0.822	0.691	0.677	0.796
Distance to the Mean	0.254	0.219	0.172	0.200
Distance to mean in SD units	1.253	1.300	0.917	0.847

*For the Use FFI in 2005, we only consider transactions at POS and ATM for lack of information on electronic transfers.

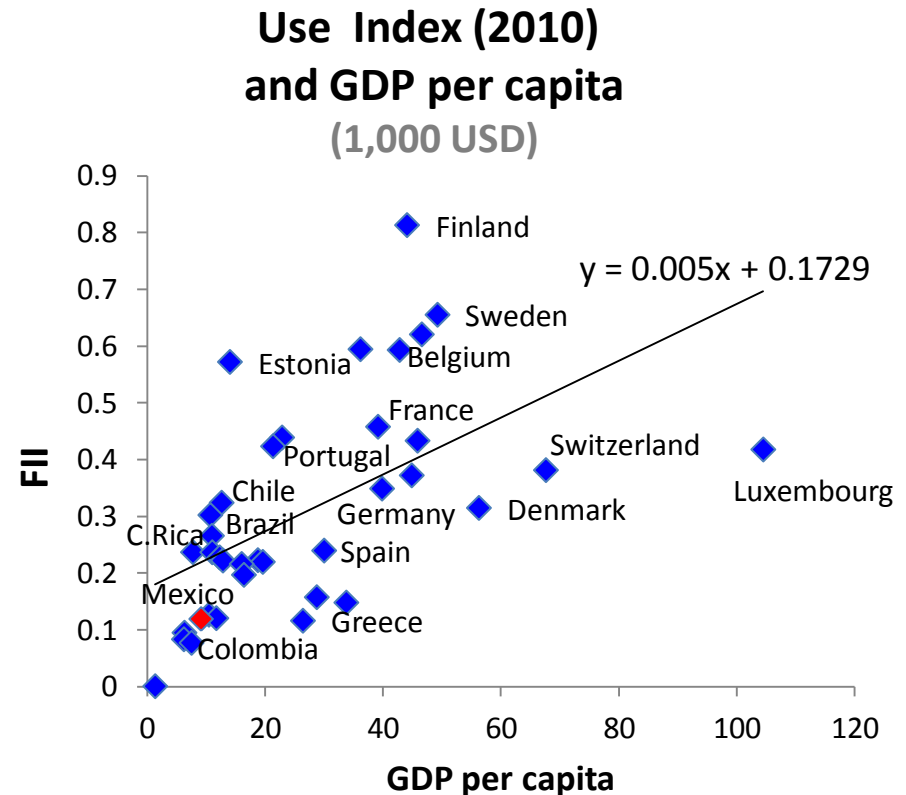
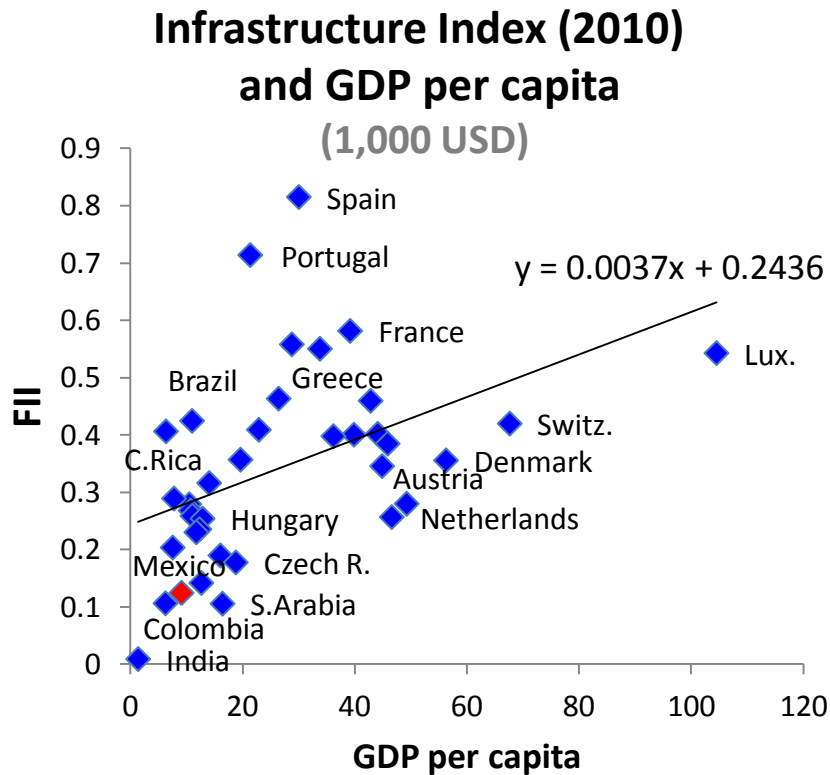
International FII: discussion

- In most cases, there is a correspondence between infrastructure and usage IIF.
- Some countries have lots of infrastructure but low usage (Spain) or low infrastructure and high usage (Netherlands).



International FII: discussion

- Is Mexico at the level of access where it could be given the size of its economy?
- Relate FII with GDP per person: Mexico is far from where it could be. This could be a policy goal: to reach the trend line.



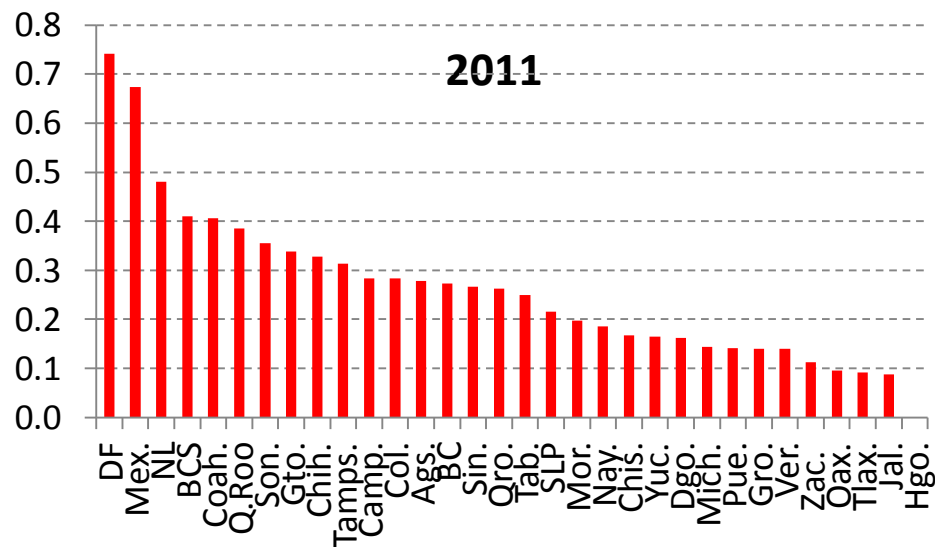
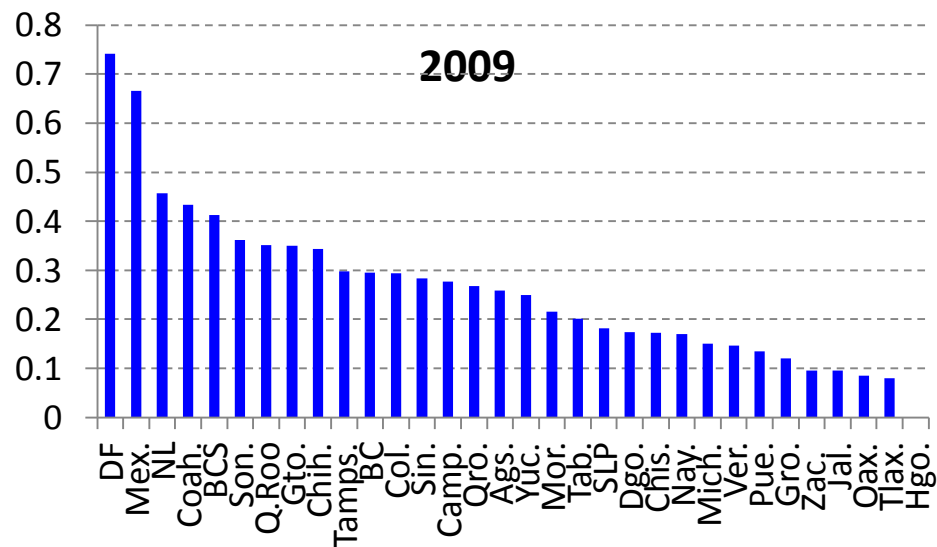
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FII for Mexican States

- We include the 32 states of Mexico for 2009 and 2011.
- Less problems of comparability: same technology.

Use Index

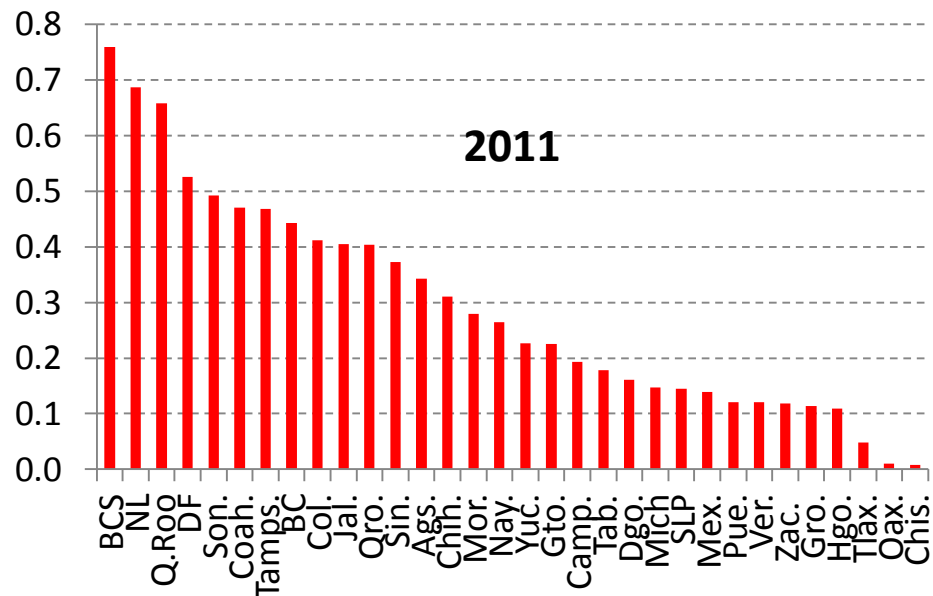
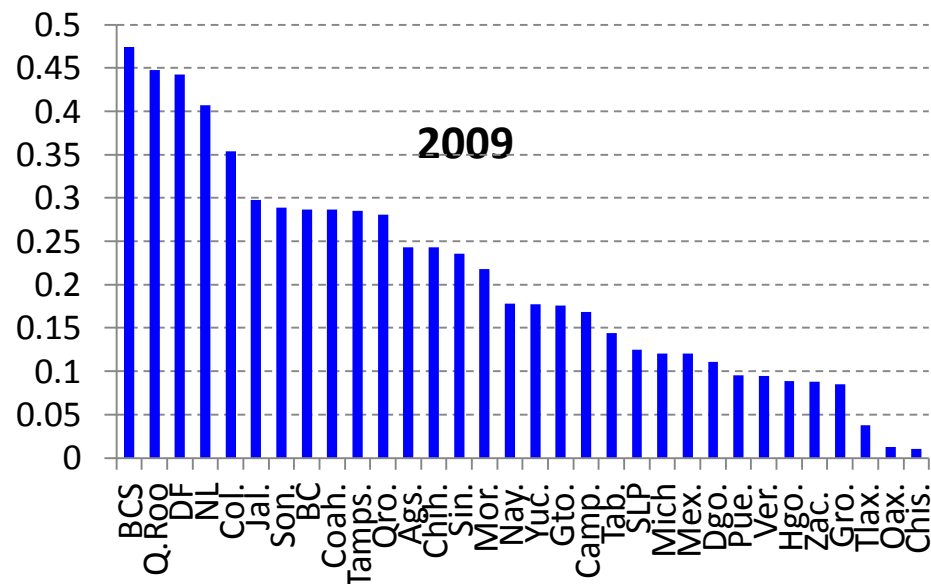


- The dimensions included (normalized by adults) are: Number of transactions in ATMs, credit transfers, checks, transactions in POS (Debit) and deposit accounts.

FII for Mexican States

- Great impact of banking correspondents in infrastructure (2009-2011).

Infrastructure FII

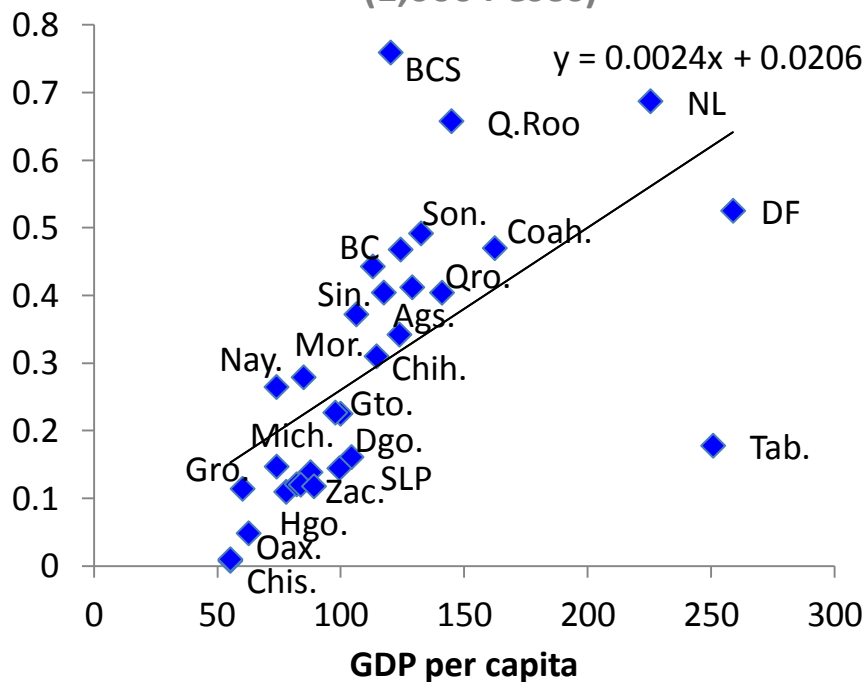


- The dimensions included (normalized by adults) are: Number of branches, Number of ATMs, Number of POS and Number of correspondents (2011).

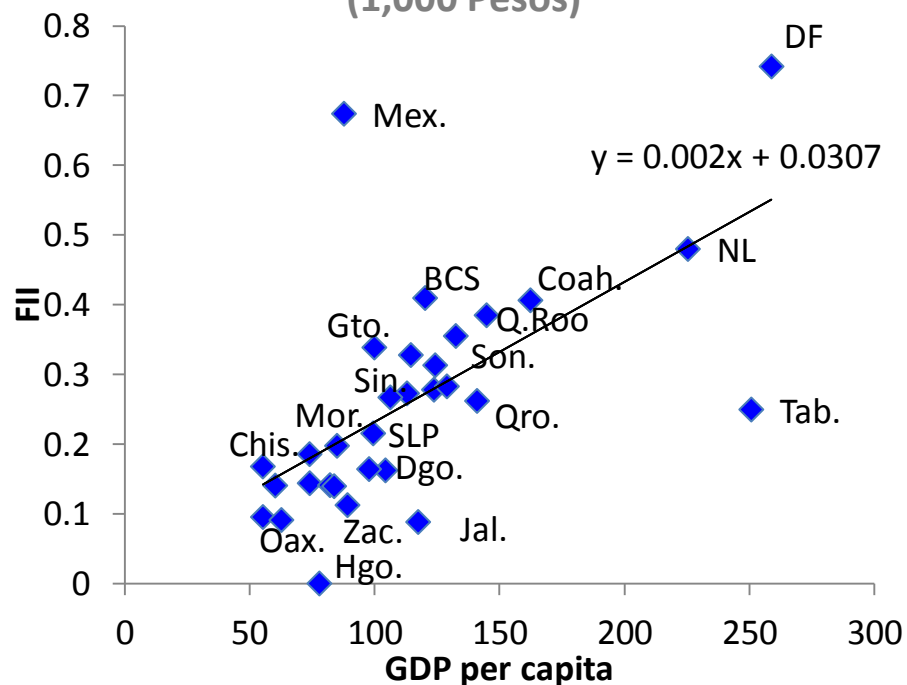
FII for Mexican States

- Relating FII to GDP per person allows for the identification of states with problems. Higher GDP per person, higher FII.


**Infrastructure Index (2010)
and GDP per capita
(1,000 Pesos)**

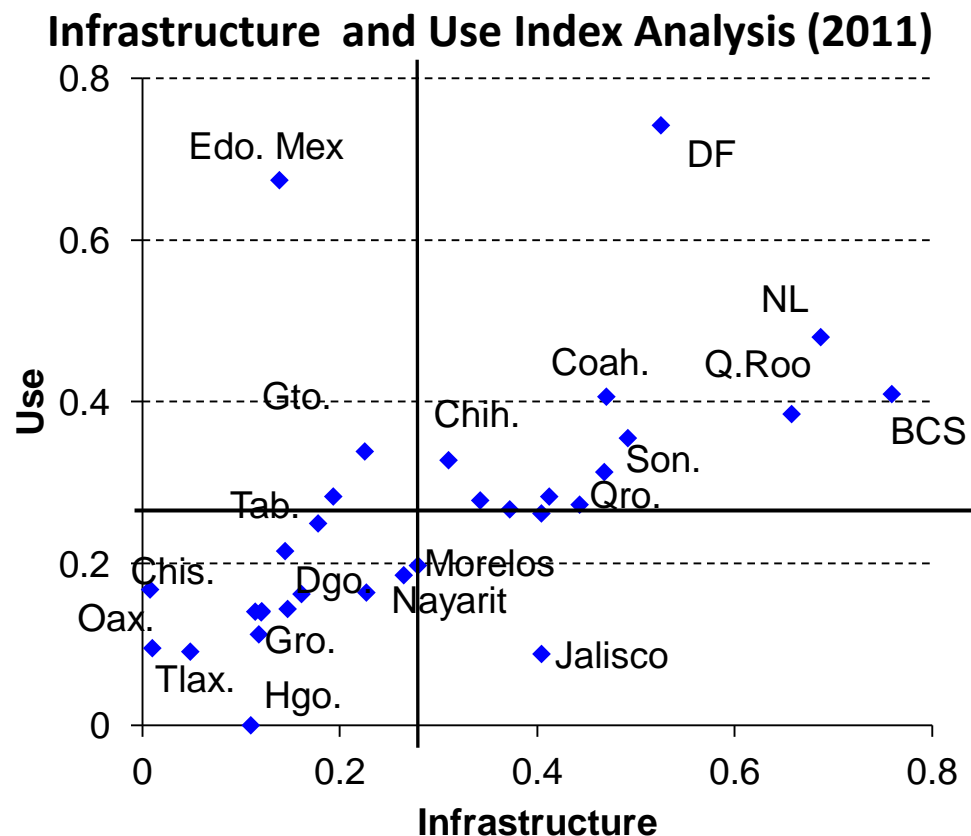


**Use Index (2010)
and GDP per capita
(1,000 Pesos)**



FII for Mexican States

- Many states are low on both IIF; some need to adopt policies to foster infrastructure deployment and others usage.
- Inequality approach: reduce it by moving more up backward states. 



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Final Comments

- FII is a useful instrument to diagnose FI situation of a country or a region.
- Sample of countries (regions) and number of dimensions included is crucial. There are many variables; two indexes are suggested, one for infrastructure and one for usage.
- It seems better to include few dimensions.
- It seems better to include a representative sample of countries and keep it stable. Index is very sensitive to Max and Min values.
- Comparisons across time are tricky: everything in the index changes.
- FII is more useful when it relates to other information, like GDP.
- For internal policy decisions, a regional IIF seems useful. It complements the international FII.

Final Comments

- So how is Mexico doing on FII?
- At the international level:
 - In both usage and infrastructure FII level is low, worse in the latter.
 - Despite improvement in the FII value, the position in the ranking has gone down through time.
 - When keeping sample fixed thorough time, improvement is clear.
 - Nevertheless Mexico is far from its potential level of inclusion.
 - This may be useful to set goals: improve FII and reach potential level.
- At the state level:
 - States are identified according to their strength: some need fostering infrastructure, others usage.
 - Goals may be set: improve FII of straggler states and reduce inequality.

Data Appendix

Appendix: Infrastructure dimensions and Index (1)

Country	ATMs per 1,000 adults		POS per 100 adults		Branches per 10,000 adults		Financial Inclusion Infrastructure Index		Ranking	
	2009	2010	2009	2010	2009	2010	2009	2010	2009	2010
Spain	1.50	1.52	2.99	3.54	11.31	11.01	0.91	0.82	1	1
Portugal	1.54	1.96	1.65	3.08	6.74	7.15	0.60	0.71	4	2
France	0.93	1.06	2.13	2.69	7.86	7.36	0.62	0.58	3	3
Cyprus	0.57	0.74	1.96	2.76	11.51	10.04	0.55	0.56	5	4
Italy	0.75	0.98	2.08	2.88	6.26	6.47	0.52	0.55	6	5
Luxembourg	1.07	1.13	2.20	3.08	10.54	5.20	0.71	0.54	2	6
Greece	0.66	0.77	3.48	4.27	3.98	4.14	0.47	0.46	9	7
Belgium	0.83	1.70	1.16	1.53	5.24	4.52	0.42	0.46	13	8
Brasil	1.09	1.19	1.24	3.32	2.05	2.18	0.34	0.42	18	9
Suiza	0.89	0.96	1.77	2.29	4.36	3.98	0.46	0.42	11	10
Slovenia	0.87	1.03	1.96	2.02	4.08	3.93	0.46	0.41	10	11
Bulgaria	0.42	0.81	0.25	0.93	0.98	9.16	0.11	0.41	30	12
Finland	1.08	0.64	2.38	4.49	3.74	3.29	0.51	0.40	7	13
Germany	0.75	1.22	0.80	0.96	6.52	5.59	0.40	0.40	15	14
United Kingdom	1.18	1.23	1.97	2.44	2.80	2.39	0.45	0.40	12	15
Ireland	0.89	0.92	1.51	2.27	3.32	3.29	0.40	0.38	16	16
Malta	0.45	0.52	2.25	3.41	3.56	3.22	0.37	0.36	17	17

Appendix: Infrastructure dimensions and Index (2)

Country	ATMs per 1,000 adults		POS per 100 adults		Branches per 10,000 adults		Financial Inclusion Infrastructure Index		Ranking	
	2009	2010	2009	2010	2009	2010	2009	2010	2009	2010
Denmark	0.68	0.63	2.31	2.43	4.84	3.64	0.48	0.36	8	18
Austria	0.44	0.74	1.29	1.07	7.40	5.83	0.40	0.35	14	19
Estonia	0.74	0.88	1.11	2.28	1.99	1.78	0.28	0.32	21	20
Sweden	0.38	0.43	2.37	2.59	2.59	2.47	0.32	0.28	20	21
Rusia	0.23	1.29	0.12	0.36	2.71	3.43	0.11	0.28	29	22
Latvia	0.45	0.70	0.70	1.23	3.09	3.04	0.23	0.27	22	23
Lithuania	0.37	0.56	0.57	1.30	2.67	3.36	0.19	0.26	25	24
Netherlands	0.56	0.58	1.90	1.89	2.55	2.09	0.33	0.26	19	25
Hungary	0.41	0.57	0.48	0.92	3.67	4.09	0.22	0.25	23	26
Poland	0.28	0.52	0.52	0.77	4.06	4.15	0.20	0.24	24	27
Rumania	0.24	0.56	0.15	0.59	1.94	3.39	0.09	0.20	32	28
Slovakia	0.42	0.51	0.45	0.81	2.56	2.65	0.18	0.19	26	29
Czech Republic	0.35	0.41	0.72	1.07	2.14	2.20	0.18	0.18	27	30
Chile	0.39	0.62	0.32	0.47	1.31	1.54	0.12	0.14	28	31
México	0.31	0.45	0.28	0.60	1.09	1.48	0.09	0.12	31	32
Arabia Saudita	0.29	0.57	0.28	0.42	0.77	0.83	0.08	0.11	33	33
India	0.03	0.09	0.04	0.07	1.05	1.11	0.01	0.01	34	34

Appendix: Use dimensions and Index (1)

Country	POS transactions per adult		ATM withdrawals per adult		Credit transfers		Financial Inclusion Use Index		Ranking	
	2009	2010	2009	2010	2009	2010	2009	2010	2009	2010
Finland	155.18	232.32	48.22	38.42		181.84	0.92	0.81	1	1
Sweden	103.84	212.44	42.39	28.74		126.85	0.72	0.66	3	2
Netherlands	103.29	159.53	35.21	31.76		116.19	0.65	0.62	4	3
United Kingdom	121.57	163.87	54.61	54.19		66.06	0.85	0.59	2	4
Belgium	79.69	108.79	28.77	42.38		111.18	0.51	0.59	9	5
Estonia	69.86	137.99	43.35	38.59		85.44	0.58	0.57	6	6
France	99.51	134.96	27.86	30.24		56.45	0.56	0.46	7	7
Slovenia	42.59	62.38	38.12	33.23		94.90	0.44	0.44	10	8
Ireland	53.18	89.34	52.51	50.43		44.05	0.53	0.43	8	9
Portugal	83.13	128.24	42.79	50.30		20.62	0.64	0.42	5	10
Luxembourg	85.96	97.67	12.26	12.55		160.38	0.36	0.42	12	11
Switzerland	53.95	72.51	16.63	17.50		111.00	0.32	0.38	15	12
Austria	30.16	44.31	17.78	19.94		134.12	0.25	0.37	17	13
Germany	34.06	35.45	34.56	28.86		83.06	0.39	0.35	11	14
Chile	10.93	20.65	12.62	19.25		136.06	0.14	0.32	27	15
Denmark	138.32	195.18	3.97	3.92		63.80	0.33	0.31	14	16
Latvia	19.42	45.48	18.75	23.85		59.90	0.22	0.30	18	17

Appendix: Use dimensions and Index (2)

Country	POS transactions per adult		ATM withdrawals per adult		Credit transfers		Financial Inclusion Use Index		Ranking	
	2009	2010	2009	2010	2009	2010	2009	2010	2009	2010
Brasil	19.60	43.00	15.92	20.21		53.10	0.20	0.27	20	18
Spain	36.59	53.57	24.79	24.18		20.62	0.33	0.24	13	19
Lithuania	17.40	32.06	17.02	22.24		40.68	0.20	0.24	19	20
Poland	8.10	25.29	15.64	21.10		45.13	0.15	0.23	23	21
Czech Republic	9.11	23.16	14.38	17.31		56.89	0.15	0.22	24	22
Hungary	10.35	23.66	13.28	13.74		70.37	0.14	0.22	26	23
Malta	13.13	26.67	26.91	30.71		17.38	0.26	0.22	16	24
Slovakia	5.84	17.09	15.71	18.53		54.72	0.15	0.22	25	25
Saudi Arabia	4.14	7.91	20.51	55.44		0.21	0.18	0.20	21	26
Cyprus	19.78	29.88	7.68	13.02		28.07	0.12	0.16	29	27
Italy	14.55	26.58	9.07	13.64		23.61	0.12	0.15	30	28
Russian Federation	0.88	4.22	5.42	16.62		21.84	0.04	0.13	33	29
México	5.62	12.55	14.60	16.86		10.40	0.14	0.12	28	30
Greece	6.93	6.42	16.50	19.59		6.56	0.16	0.12	22	31
Bulgaria	1.04	2.50	10.97	16.05		8.10	0.09	0.09	31	32
Romania	0.74	4.84	6.82	11.42		10.22	0.05	0.08	32	33
India	0.23	0.48	1.18	2.89		0.37	0.00	0.00	34	34

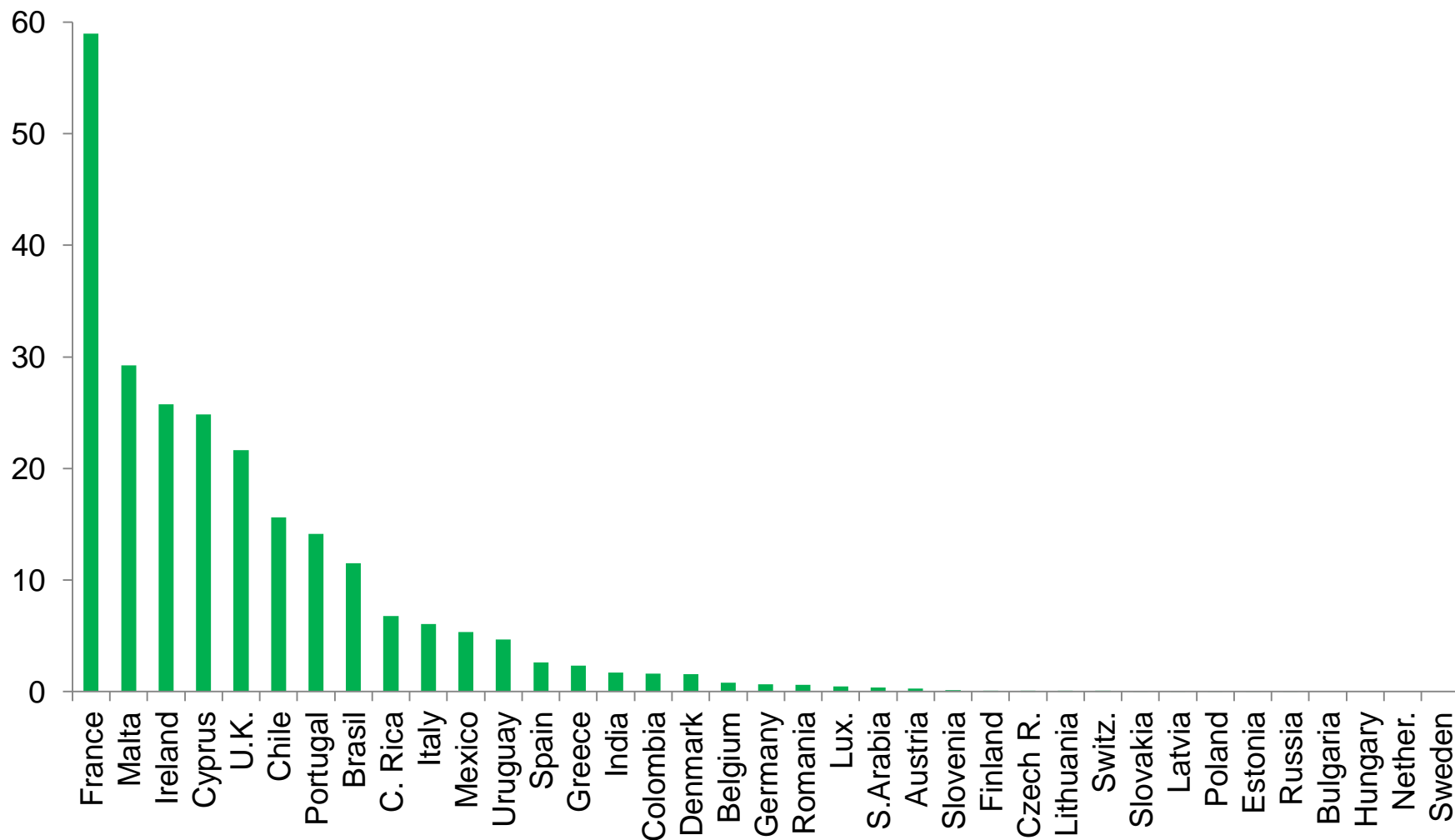
Appendix: Comparing indexes

Index	Infrastructure (Sarma)		Use (Sarma)		Sarma (2008)		Chakravarty (2010) (r=1)		Chakravarty (2010) (r=1)	
Year	2005		2005		2004		2003-2004		2004	
Dimensions	(3): Branches, ATMs and POS (normalized by adults).		(2): Transactions in ATMs and in POS (normalized by adult population).		(3): Deposit accounts per capita, deposit money bank branches (demographic penetration), Ratio of deposit plus credit to GDP.		(6): Bank branches (geographic and demographic penetration), ATMs (geographic and demographic)		(3): Deposit accounts per capita, deposit money bank branches (demographic penetration), Ratio of deposit plus credit to GDP.	
Sample size	34 countries		34 countries		55 countries		42 countries (ranking out of 21 country sample)		55 countries (ranking out of 21 country sample)	
Country	Index	Ranking	Index	Ranking	Index	Ranking	Index	Ranking	Index	Ranking
Belgium	0.419	13	0.515	9	0.637	3	0.419	2	0.703	1
Brasil	0.345	18	0.197	20	0.214	22	0.092	11	0.214	11
Bulgaria	0.107	30	0.090	31	0.246	20	0.153	9	0.256	10
Chile	0.121	28	0.139	27	0.267	19	0.192	6	0.277	9
Denmark	0.476	8	0.325	14	0.614	4	0.391	3	0.671	2
Italy	0.523	6	0.120	30	0.415	9	0.335	4	0.423	7
Saudi Arabia	0.078	33	0.176	21	0.127	39	0.048	14	0.129	13

Appendix: Adding dimensions to the index

	New dimension value	Change on index value from adding the nth dimension								
		2	3	4	5	6	7	8	9	10
Case 1	1	0.15	0.06	0.04	0.03	0.02	0.02	0.01	0.01	0.01
Case 2	0	-0.29	-0.08	-0.04	-0.02	-0.01	-0.01	-0.01	-0.01	0.00

Appendix: Checks per adult (2010)

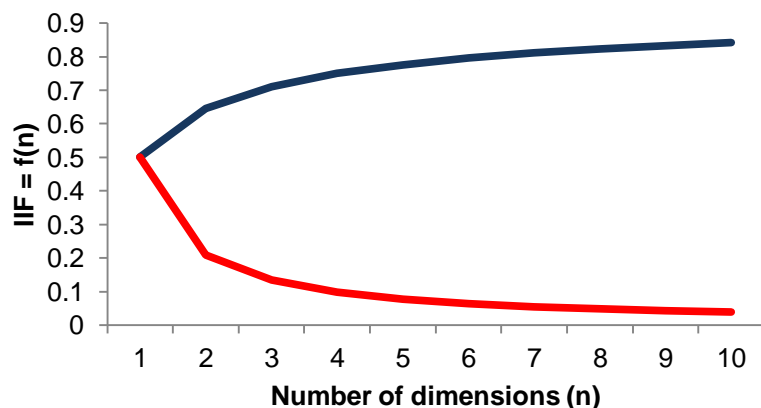


Dimensions to be included

- Implicit in the dimensions are the goals authorities want to achieve.
- Complementarities must be recognized, particularly in payments.
- There is a tradeoff between adding dimensions and their importance. Due to the concavity of the FII, additional dimensions have a decreasing effect.
- Adding dimensions if the country we are getting the FII for has a low (high) level, the impact is greater (smaller).

Adding dimensions with Max and Min values

(FII after adding new dimensions)



	Initial IIF value	New dimension value	IIF value after introducing another dimension	Change in IIF value
Case 1	0.5	1	0.65	0.15
Case 2	0.5	0	0.21	-0.29



— Country with value 1 in new dimensions

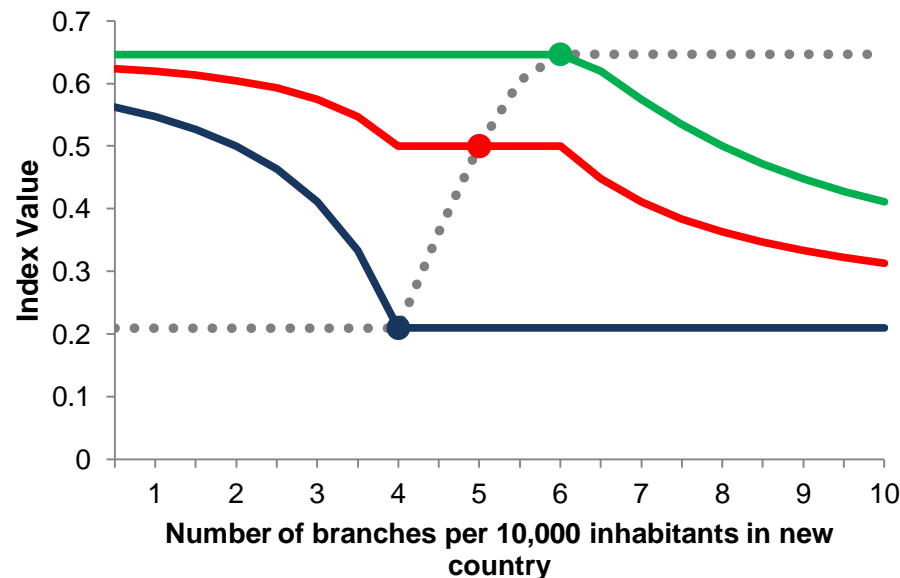
— Country with value 0 in new dimensions

Choosing countries in sample

- The country selection determines the results:
 - Adding new countries may affect other countries' FII, specially if it the new country has very high or low values.
 - It seems appropriate to keep the same country sample through time.

Adding a Country to an original 3 Country Sample

(Variation in 1 dimension)



..... New Country — Country H: 6 branches — Country M: 5 branches — Country L: 4 branches

FII for Mexican States: Inequality Approach

- Analysis by states allows for a different policy goal: close the gap between regions while continuing to improve the leading ones.

- Theil Index measures inequality. The index is defined as:

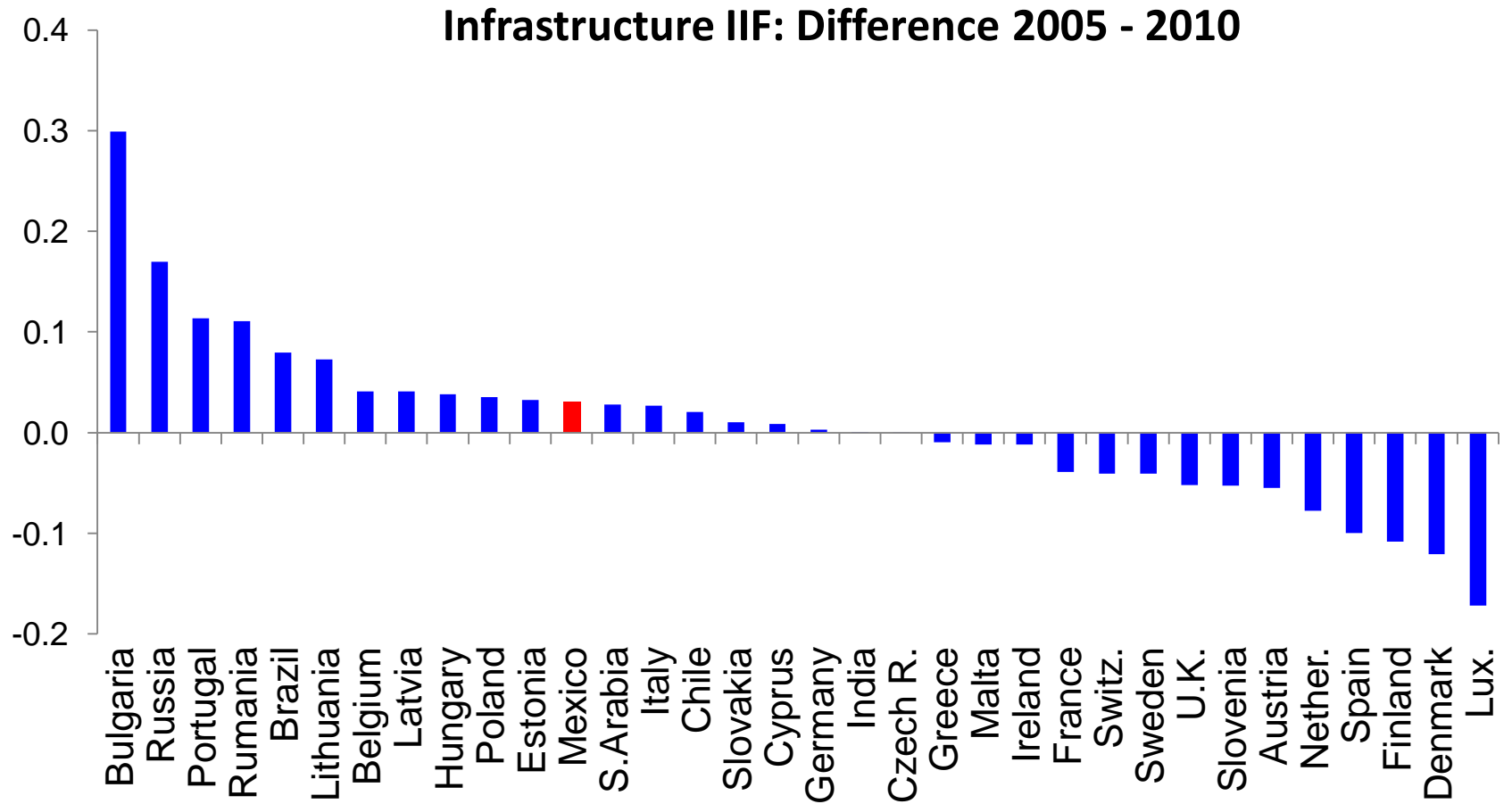
$$IT = \sum_{i=1}^n S_i \ln \left(\frac{1}{S_i} \right)$$

- Where S_i stands for an observation's share and n are the number of observations (32 in this case). Thus the index takes values from (0, 3.47], where the larger the index the smaller the inequality.
- Theil Index for Mexico's IIF in 2011 was 3.23 for infrastructure and 3.29 for use. This implies relatively low inequality.
- There is more inequality in infrastructure.



International FII: Comparisons 2005-2010

- The difference of each countries' FII between years tells us which one *jumped* more.





IFC Workshop on Financial Inclusion Indicators
Co-hosted by Bank Negara Malaysia
5 – 6 Nov 2012, Sasana Kijang, Kuala Lumpur

**Financial inclusion in Malaysia:
tracking progress using index¹**

Zarina Abd Rahman, Central Bank of Malaysia

¹ This paper 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 in Malaysia: Tracking Progress Using Index

Zarina Abd Rahman¹

Abstract

The study seeks to examine the extent of financial inclusion in Malaysia. This study demonstrates that the measurement approach developed in the human development literature can be usefully applied to the measurement of financial inclusion. A conceptual framework for aggregating data on financial products and services in different dimensions and the suggested composite index of financial inclusion allows calculation of percentage contributions of different dimensions to the overall achievement. This in turn enables the identification of the dimensions of inclusion and their impact to overall financial inclusion. An index of financial inclusion (IFI) has been developed in the study using data on four identified dimensions of financial inclusion for Malaysia. The study also provides a tool for the measurement of progress and to estimate the impact of appropriate policies in order to make financial inclusion more meaningful and effective for the benefit of society.

¹ The views expressed in this study are of the strictly from the author. The author wishes to express her deep gratitude towards Muhammad Ibrahim, Bakaruddin Ishak and Kamari Zaman Juhari and her colleague in Development Finance Enterprise for their useful guidance and assistance in various stages of the study. Thank you also to Dr. Ahmad Razi for providing a thorough review and technical assistance for the paper. She would also like to express her sincere thanks to Thomas Tan Koon Peng for his encouragement and also giving her the opportunity to develop the financial inclusion index for Malaysia.

Section 1: Introduction

Malaysia recognises the importance of financial inclusion as a strategy towards sustainable long-term growth. Measures that were put in place over the last four decades helped the country in the effort to reduce poverty and inequality levels within society. This is reflected in the laying of many critical foundations to advance the cause of financial inclusion; which amongst others include adding the financial inclusion mandate in the Central Bank of Malaysia's Act, creating of a diverse range of institutions, enhancing distribution channels, providing of basic banking products and micro financing scheme, strengthening of supporting financial infrastructure, consumer education and protection and catalysing SME development. At the Federal level, it was recognised that an important component of the country's financial sector policies is financial inclusion that ensure that all segments of society get access to financial services irrespective of geographical location, income strata or the economic activity².

The Central Bank of Malaysia's Financial Sector Blueprint 2011–2020 charts the development of an inclusive financial system that best serves all members of society, particularly the underserved, in terms of access, take up, responsible usage, quality and affordability. More intensified efforts are focused on creating innovative channels, products and services, empowering the underserved through financial literacy and capacity building and strengthening financial institutions and infrastructure. The importance of a holistic monitoring and evaluation framework has also been given emphasis to measure the state of financial inclusion more effectively. To support this strategy, a core set of KPIs for financial inclusion have been identified to monitor the progress with a demand-side survey conducted in 2011 and a financial inclusion index developed in 2012.

Given this background, the major objective of the study is to measure the extent of financial inclusion in Malaysia. Section 2 provides the background of the state of financial inclusion in Malaysia followed by the development of the financial inclusion index in Section 3. Section 4 deals with the analysis of the results from the index and how it could be replicated to examine the level of financial inclusion of the different segments of the population. Section 5 concludes the study.

Section 2: Furthering the Financial Inclusion in Malaysia

The comprehensive initiatives implemented over the past decade have significantly improved financial inclusion in Malaysia. Take-up of deposits has increased from 1,975 deposit accounts per 1,000 adults in 2000 to 3,036 deposit accounts per 1,000 adults in 2011. Meanwhile, the take-up of financing has increased from 310 financing accounts per 1,000 adults in 2000 to 895 financing accounts per 1,000 adults in 2011. These outcomes have elevated Malaysia's position in various global financial inclusion rankings, including a number one ranking since 2007 for

² Excerpt from the Prime Minister's Speech at the ADB-BNM-EC Joint Conference themed "Beyond The Global Crisis: A New Asian Growth Model?" Kuala Lumpur, 20 October 2009.

“Getting Credit” in the “Ease of Doing Business” index by the World Bank (FSBP, 2011).

Although significant progress was achieved, there are still opportunities to further enhance financial inclusion outreach. For instance, preliminary findings based on the supply-side data show that 54 percent³ of sub-districts (mukim) with more than 2,000 population in the country were not served by the formal financial system. Whilst the take-up of deposit accounts has risen, it is estimated that 8 percent of the adult population still do not have deposit accounts.

Globally, there is growing recognition of the importance of having indicators and data to monitor the state of financial inclusion more effectively. In Malaysia, there is a need for a comprehensive KPI framework to measure both the level of financial inclusion from the supply and demand side perspectives. Supply-side data are collected from financial providers while the demand-side data represent the perspective of the consumers and allows the assessment of their needs to ensure that they are being adequately met by the provision of services. Under this KPI framework, financial inclusion outcomes will be measured across four dimensions and data will be sourced reliably from various sources such as the mapping of access points, supply side data which are adjusted to account for single users holding multiple accounts using the National Identity Cards, and demand side surveys of the general population and micro enterprises. The baseline measurement is in 2011, and real improvements for the consumers are expected over time as recommendations under the financial inclusion framework are implemented. These identified indicators are combined to develop a financial inclusion index to facilitate tracking of progress based on single number over time.

2.1 Literature Review on Indicator Measurement

Financial inclusion refers to the delivery of financial services of an economy to its people (Chakravarty, 2010). The domain of financial services can be quite large and it may vary from country to country. Several indicators have been used in the literature to measure financial inclusion.

The AFI Core Set of Financial Inclusion Indicators (AFI Core Set) is the first step in establishing a common measurement of financial inclusion, whereby the indicators are meant to measure the most basic and fundamental aspects of financial inclusion in a way that is standardised (AFI, 2011). The Core Set Indicators address the two basic dimensions of financial inclusion; access and usage of financial services (See Table 1).

There are various aspects to access which could be measured by the availability of financial services, cost of access, range, type and quality of financial services offered (Claessens 2006). The counterpart of access is exclusion. Financial exclusion could occur due to (1) “geographic limitations” following under-provision of financial services in remote and scarcely populated areas, (2) “socio-economic limitations” when financial services appear inaccessible to specific income, socio-

³ Equivalent to 449 out of 837 sub-districts with more than 2,000 population based on the results of the Mapping of Access Points Project 2011 undertaken by Development Finance and Enterprise Department, Central Bank of Malaysia.

economic or ethnic groups, or (3) “limitations of opportunity” when new or small firms with viable projects face credit constraint due to information asymmetry and/or lack of collaterals (Beck et al, 2006). However, access is not synonymous to usage, as defined in the AFI Core Set. Economic agents might decide not to use accessible financial services, either for socio-economic reasons, or because the opportunity costs are too high (Beck et al. 2006).

Table 1: Core Set of Financial Inclusion Indicators

Access	1	Number of access points per 10,000 adults at a national level
	2.1	% of administrative units with at least one access point
	2.2	% of total population living in administrative units with at least one access point
Usage	3.1	% of adults with at least one type of regulated deposit account
	3.1a	Number of deposit accounts per 10,000 adults
	3.2	% of adults with at least one type of regulated credit account
	3.2b	Number of loan accounts per 10,000 adults

Recently, the Global Findex database by the World Bank provides a number of financial inclusion indicators based on surveys of more than 150,000 adult individuals in 148 countries in 2011 (Demirguc-Kunt & Klapper, 2012). Notwithstanding, these indicators whether at the micro or macro level if used individually provide only partial information on the inclusiveness of the financial system, and thus inadequately capture the extent of financial inclusion in an economy, which may result to an inaccurate assessment.

Therefore to address this issue, an index of financial inclusion (IFI) is required, using multidimensional approach which is able to capture information from several dimensions in one single number. The IFI should be flexible and expandable while being able to satisfy the following criteria:

- i. It should incorporate information on as many dimensions of inclusion as possible.
- ii. It should be comparable across countries/regions/states at a particular time period.
- iii. It should be used to monitor the progress of policy initiatives for financial inclusion in a country over a period of time.
- iv. It should be easy and simple to compute.

This multidimensional approach is widely used in the construction of indices to measure the ‘distance from frontiers’ which shows how much the environment has changed over time similar to *Ease of Doing Business Index* (Doing Business 2012). The United Nations Development Programme (UNDP) has also used a similar approach for the computation of some well-known development indices such as the Human Development Index (HDI), the Multidimensional Poverty Index (MPI) and the Gender Inequality Index. The approach chosen in this study is also similar to the one used by Chakravarty (2010) and Sarma (2008) to measure financial inclusiveness.

Section 3: Development of Financial Inclusion Index

In cognisance of the diversity in the patterns of change in the different dimensions of financial inclusion over time, it becomes necessary to get a comprehensive picture. The study introduced an approach of measuring financial inclusion performance by combining indicators representing the identified dimensions into a composite index of financial inclusion, IFI. There are three steps in calculating the IFI (*Detailed mathematical representation of the method is provided in the Appendix*).

IFI is computed by first calculating sub-indices for each indicator, whereby minimum and maximum values (frontiers or targets) for each are set. The distance to frontier approach, which defines frontier as perfect financial inclusion, is calculated from the current position of financial inclusion.

Indexing the indicators = $\frac{A_i - m_i}{M_i - m_i}$
where, $A_i = \text{Actual value of indicator } i.$ $m_i = \text{minimum value of indicators } i.$ $M_i = \text{maximum value indicators } i.$
Example:
Usage of deposit account index = $\frac{(87 - 0)}{(90 - 0)} = 0.97$

Secondly, these sub-indices are then weighted in accordance to importance and aggregated in order to transform these sub-indices of indicators into a dimension index, expressed as a value between 0 and 1. Since we have no evidence to indicate that one dimension is more important than another, the dimensions are thus weighted equally. Moreover, unlike the case of HDI, there is yet any consensus in the literature on which set of attributes/dimensions is important to measure financial inclusion. Finally, the IFI is the arithmetic mean of the four dimension indices. Index ranges from 0 – 1, with 1 being perfect financial inclusion and 0 being total financial exclusion.

Section 4: Analysis for Index of Financial Inclusion for Malaysia

Leveraging on the AFI Core Set formulated by the AFI Financial Inclusion Data Working Group (FIDWG), the Central Bank of Malaysia developed the financial inclusion KPIs (See Figure 1) by defining four dimensions of financial inclusion for Malaysia i.e. convenient accessibility, take-up rate, responsible usage, and satisfaction level with each dimension having similar indicators as AFI Core Set which has been customised to uniquely cater for the Malaysian context. The details are as follows:

Figure 1: Comprehensive KPI Framework

Dimensions	Indicators
Convenient Accessibility	<ul style="list-style-type: none"> • % of mukim with at least 2000 population with access point • % of population living in mukim with at least one access point
Take-Up Rate	<ul style="list-style-type: none"> • % of adult population with deposit accounts • % of adult population with financing accounts • % of micro enterprises with financing accounts • % of adult population with life insurance/takaful policies
Responsible Usage	<ul style="list-style-type: none"> • % of customers with active deposits • % of customers with performing financing accounts • % of micro enterprises with performing financing accounts
Satisfaction Level	<ul style="list-style-type: none"> • % of customers who are satisfied with overall financial services

Dimension 1: Convenient Accessibility

Access refers to the ability to use available financial services and products from formal institutions. Under an inclusive financial system, financial services should be easily available to potential users. Availability of services can be indicated by the number of access points providing the financial services such as bank branches/outlets, automated teller machines (ATMs) or banking agents (BAs) or in some countries known as banking correspondences (BCs) providing banking services to the population. For convenient accessibility, we defined access points as facilities that allow both cash in and cash out (AFI, 2011) and measure this dimension using two indicators related to the availability of access points: (i) percentage of mukim⁴ (sub-districts) with at least 2000 population with access point and (ii) percentage of adult population living in mukim with at least one access point. These indicators would capture the outreach of financial services, with a target of having access points spread widely all over the country, with the mukim being the smallest administrative unit with available population data.

Dimension 2: Take-up rate of financial products

Ideally, an inclusive financial system should penetrate widely amongst its users. The size of the banked population, i.e. number of adult population with a bank account over the total number of the adult population is a measure of the banking penetration of the system. Thus, if every adult person in an economy has a deposit

⁴ Mukim is a sub-district in Malaysia or the 4th level administrative unit (refer to AFI Core Set Indicators definition on administrative unit) where the 1st level is defined as the national level, followed by 2nd as the state and 3rd as the district.

and/or credit account, then the value of this measure would be equal to 1. The financial inclusion demand side survey conducted by Central Bank of Malaysia in 2011 has revealed that about 92 per cent of the individuals had deposit account with regulated financial institutions in Malaysia. The survey also provided insights into the take-up of loans and insurance policies by the Malaysian adult population. Based on the survey, 36% have at least a loan/financing account and 18% have life insurance/takaful policies. These three indicators together are used to estimate the take-up rate dimension for the main financial products offered to general population.

Dimension 3: Responsible Usage

This dimension emerges from the concept of “under-banked” or “marginally-banked”, as observed by Chattopadhyay, “in some apparently very highly-banked countries, a number of people with bank account are nonetheless making very little use of the services on offer”, thus having a bank account does not ensure inclusivity; it is also imperative that the banking services are adequately utilised (Chattopadhyay, 2011). In order to incorporate the responsible usage dimension in the IFI, we consider two basic banking services (deposit and credit) by using the indicators on percentage of customers with active deposits and percentage of customers with performing financing accounts. These indicate the activities by the customers in using the products responsibly. The number of unique active account holders is verified by matching the national identity card numbers via the Account and Policy Holders Survey with data submitted by financial institutions.

Dimension 4: Satisfaction Level

This particular dimension attempts to illustrate the quality dimension which is a more complex topic both conceptually and in terms of measurement, and the indicator of choice is a qualitative indicator obtained via responses collected in demand side survey. In the Malaysia case, we use the percentage of customers who are satisfied with overall financial services as the only indicator for measuring this dimension. This dimension can be enhanced in the future provided that some common indicators for the quality dimension are agreed upon based on the AFI FIDWG initiatives.

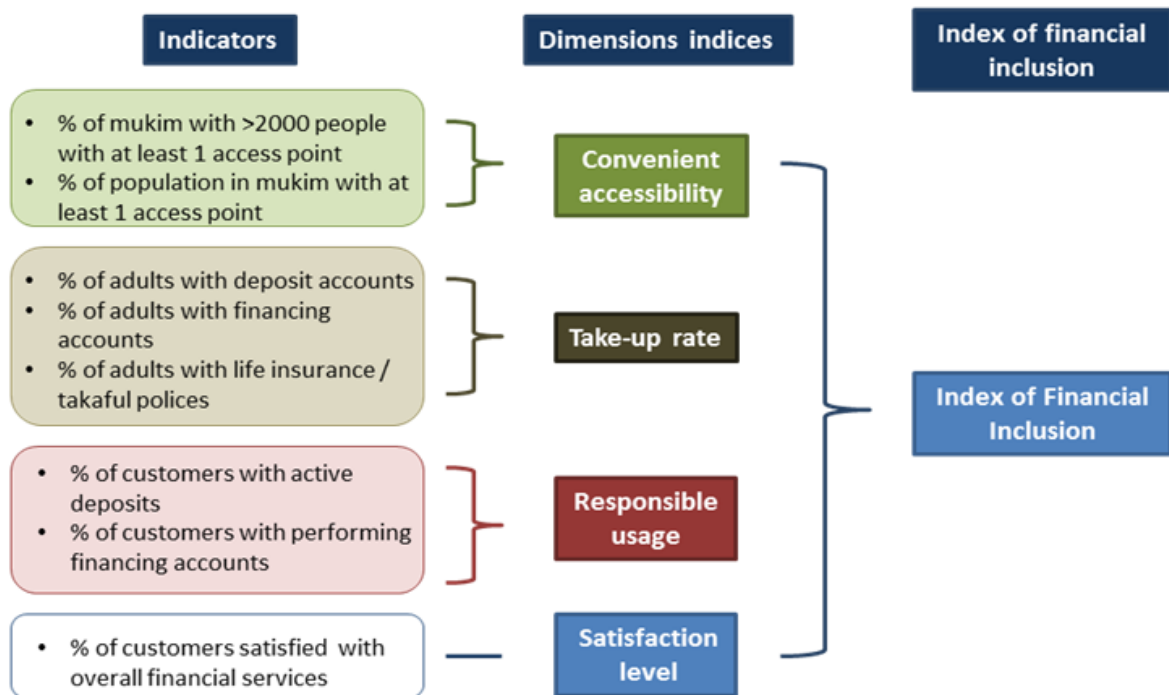
4.1 Results for Malaysia

Using data from all four dimensions for Malaysia, we illustrate the IFI computation in Table 2. In the Malaysian case, the targets are set based on the consensus view of the Financial Inclusion Working Group at Bank Negara Malaysia, which were benchmarked against the results of Global Findex (Demirguc-Kunt & Klapper, 2012) for some of the more developed countries. This higher standard is set as Malaysia aspires to reach higher income status by 2020. The weight for each indicator is set to reflect the importance of the indicators at this point in time, but the dimensions are weighted equally.

Depending on the values of IFI, the results are categorized into the four following categories:

- (i) $0.75 < IFI \leq 1$ – high financial inclusion
- (ii) $0.5 \leq IFI < 0.75$ – above average financial inclusion
- (iii) $0.25 \leq IFI < 0.5$ – moderate financial inclusion
- (iv) $0 \leq IFI < 0.25$ – low financial inclusion

Figure 2: Graphical presentation for calculating the index of financial inclusion, IFI



Source: Central Bank of Malaysia

Nonetheless, the importance of the indicators used could change overtime with changes in policy emphasis and priority, while the weight for each dimension may vary as the country progresses in terms of financial development. For example, access and usage of financial services now go beyond the physical access points to include virtual space such as internet and mobile banking facilities (Sarma, 2012).

As shown in Table 2, the level of financial inclusion in Malaysia as measured by IFI is high at 0.77. Higher values indicate better performances as improvements in the financial activity of a dimension will translate into a higher value for that dimension. Activities contributing to lower values may require attention from the policy point of view for improvement. We can isolate such dimensions as the financial inclusion index enables us to calculate the percentage contributions made by each indicator to the overall level of financial inclusion. The index can be used to monitor performance progress and can be used to support policy recommendations on what more is required to improve performance. This demonstrates an important

policy application of the IFI. The index can also be adjusted and expanded after a certain period to reflect the structural changes in the financial landscape by replacing some indicators or by including more indicators and/or dimensions as they become more relevant for the financial inclusion agenda of the country.

Table 2: Index of Financial Inclusion for General Population in Malaysia

Dimension	Indicators	Data (%)	Target (%)	Index of Each Indicator	Weight	Index of Each Dimension	Equal Weighted Dimension	Equally Distributed FI
Convenient Accessibility	• % of mukim with at least 2000 population with at least 1 access point	46	90	0.51	0.5	0.64	0.25	0.77
	• % of population living in mukim with at least one access point	82	95	0.86	0.5			
Take-Up Rate	• % of adult population with deposit accounts	92	95	0.97	0.5	0.70	0.25	
	• % of adult population with financing accounts	36	50	0.72	0.25			
	• % of adult population with life insurance/takaful policies	18	40	0.45	0.25			
Responsible Usage	• % of customers with active deposits	87	90	0.97	0.5	0.98	0.25	
	• % of customers with performing financing accounts	97	97	1.00	0.5			
Satisfaction Level	• % of customers who are satisfied – Overall financial services	61	80	0.76	1.0	0.76	0.25	
Index ranges from 0 – 1, with 1 being perfect financial inclusion 						1.00	0 – 1.00	

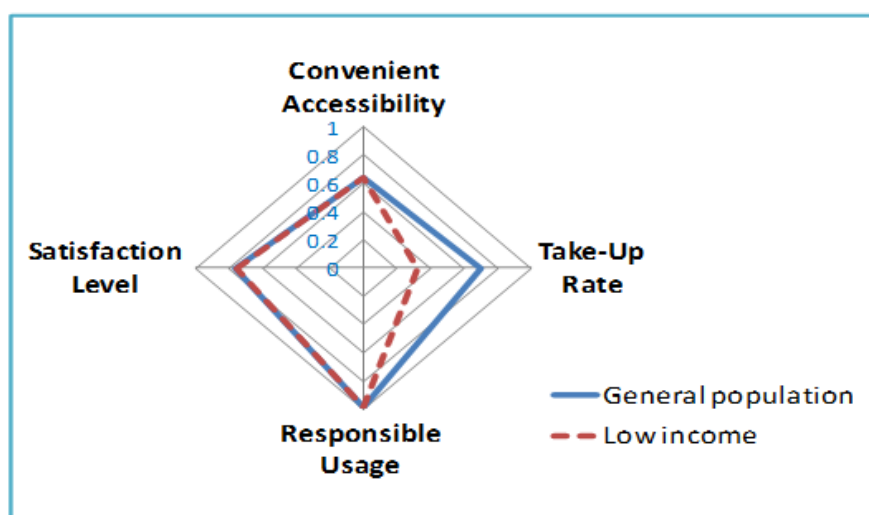
Source: Central Bank of Malaysia

In Table 3, we used the low income group data for Malaysia to illustrate how IFI could be used to confirm whether there is a need for specific policy intervention to cater for different level of income. In this scenario, low-income is defined as the segment of population who earn less than RM 1,000 per month. The results showed that low income customers have a lower score for IFI compared to the general population in Malaysia. However, we could only go in-depth with the take-up rate dimension due to limitations on the availability of data. The data on take-up is based on findings from the demand survey, while the data for the others indicators are mainly from the supply-side which we could not segregated by income group. This shows that more granularities in data collected is required from the supply side for better assessment. Nonetheless, using this method we have been able to demonstrate how the index could be enhanced and expanded provided we have adequate data for each segments of the population.

Table 3: Index of Financial Inclusion for Low Income Group in Malaysia

Dimension	Indicators	Data (%)	Target (%)	Index of Each Indicator	Weight	Index of Each Dimension	Equal Weighted Dimension	Equally Distributed FI	
Convenient Accessibility	• % of mukim with at least 2000 population with at least 1 access point	46	90	0.51	0.5	0.64	0.25	0.68	
	• % of population living in mukim with at least one access point	82	95	0.86	0.5				
Take-Up Rate	• % of adult population with deposit accounts	89	95	0.94	0.5	0.32	0.25		
	• % of adult population with financing accounts	10	50	0.20	0.25				
	• % of adult population with life insurance/takaful policies	8	40	0.20	0.25				
Responsible Usage	• % of customers with active deposits	87	90	0.97	0.5	0.98	0.25		
	• % of customers with performing financing accounts	97	97	1.00	0.5				
Satisfaction Level	• % of customers who are satisfied – Overall financial services	60	80	0.75	1.0	0.75	0.25		
Index ranges from 0 – 1, with 1 being perfect financial inclusion							1.00		0 – 1.00

Figure 3: Comparing the Results of General Population with Low Income Group



Source: Central Bank of Malaysia

Section 5: Conclusion

The issue of financial inclusion has received widespread attention in Malaysia during the recent years as policymakers acknowledge that one of the most important driving forces of growth is institutionalised financial services. While overall, Malaysia is on a sustainable growth path, the bottom 40% of the population are still categorised as low income households. This is neither desirable nor sustainable for the nation as the benefit of high growth will not be able to trickle down and thus a large portion of the population will be deprived of these benefits if they are not financially included.

We have developed an index of financial inclusion using data on four dimensions of financial inclusion which is useful to monitor the progress of policy initiatives for financial inclusion over a period of time. Thus far, the result has shown that by segmenting the population for which the IFI has been estimated, there is a gap between the low income segment and the general population (see Figure 3). The index could help policymakers to focus on the dimensions with these gaps for further analysis and introduce new policies and initiatives that could address related issues or assist to narrow such gaps. It is observed from the study that the achievement of financial inclusion in Malaysia is relatively high although some improvements in respect of some dimensions must take place to conclude that financial inclusion has also brought about economic and socio-political impact to the society at large.

This result is confirmed by the financial inclusion demand survey that was conducted in 2011. The findings from the survey and mapping of access points were used to support the introduction of agent banking which will further enhance access to financial services especially in the rural and remote areas. A proper agent banking model will be able to overcome the supply and demand problems to a greater extent. However, simply providing financial services is not sufficient. Significant numbers of rural people are still not aware of the availability of many financial products and due to this ignorance may not be able to take full advantage of the available financial facilities. The survey has also revealed that the level of awareness of the various financial services and products vary among the different segments of the population. This pointed to the need to spread financial literacy. The need for financial education at all levels requires intervention by the relevant ministries and other stakeholders so that the public would be better informed on how to benefit from the financial services and products in an effective manner.

The IFI could be used as a communication tool just as any other development index to indicate the level or performance of a country, which would enable the general public is made to be aware of the achievements or outcomes of reforms in the area of financial inclusion and in a broader sense the development of the financial sector overtime. Additionally, in order to make the IFI a more effective tool for cross country comparison, a common set of indicators and targets with standard reporting structure should be agreed upon among the policymakers and data compilers.

In a nutshell, it is observed that although various initiatives have been undertaken for financial inclusion, there is still a need to narrow the gap among the different income groups, and this could be achieved with the help of appropriate policies. Above all, a whole-hearted effort is called for from all the corners of the society, in order to make financial inclusion more meaningful and effective.

Appendix

Step to Estimate the Index of Financial Inclusion

In order to compute the IFI, first a sub-index is calculated for each inclusion of financial inclusion. Then the sub-indices are weighted and aggregated to create the dimension index which is normalised to be between 0 and 1. The IFI is the simple weighted average of the dimension indices.

The sub-index for the i^{th} indicators, X_i , is computed by the following formula

$$X_i = \frac{A_i - m_i}{M_i - m_i} \quad (1)$$

where

A_i = Actual value of indicator i

m_i = minimum value of indicator i

M_i = maximum value of indicator i

The index for the i^{th} dimensions, X_i , is computed by

$$\text{Dimension Index, } D_i = \sum_{i=1}^n w_i X_i \quad (2)$$

where w_i is the weight of the i^{th} indicators and n is the number of indicators.

The IFI is a simple weighted average of the dimension indices, as follows:

$$\text{IFI} = \frac{1}{n} \sum_{i=1}^n w_i D_i \quad (3)$$

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IFC Workshop on Financial Inclusion Indicators
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**Comparing financial inclusion across countries
based on FINSCOPE survey data for Africa¹**

Aurora Bila, Bank of Mozambique

¹ This presentation 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.

Comparing financial inclusion across countries based on FINSCOPE survey data for Africa (SADC Region)



Aurora Bila

Banco de Mocambique

Malaysia, 6 November 2012



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Disclaimer

This presentation based upon and limited to the findings from different surveys conducted by FinMark Trust in the SADC region, based on FinScope Studies 2009 - 2011.

The reports of the individual country surveyed are available on www.finscope.co.za



Agenda

1. About FinMark Trust
2. About Finscope
3. Empirical evidence
4. Comparing financial inclusion indicators
5. Findings and milestones on financial inclusion in Mozambique



About FinMark Trust

- Not-for-profit Independent trust based in Johannesburg established in March 2002;
- Funded primarily by UKAID from the United Kingdom's Department for International Development (DFID) through its Southern Africa Office;
- Main objective: is "making financial markets work for the poor by promoting financial inclusion and regional financial integration".



About FinMark Trust

- In pursuit of its purpose, FinMark Trust supports institutional and organisational development which increases access to financial services in Africa, by conducting research to identify the systemic constraints that prevent financial markets from reaching out to poor consumers, and by advocating for change on the basis of research findings.



FINSCOPE

In a nutshell, Finscope *is "a research tool developed by FinMark Trust"*

- It is a nationally representative study of individuals' perceptions on financial services and issues which creates insight to how people source their income and manage their financial lives.
- On financial inclusion, FinScope looks at the use of, and demand for financial services, including informal products;



FINSCOPE

- By means of questionnaires and interviews covering attitudes, behaviors, quality of life factors and consumption patterns, identify factors that impede and facilitate effective access to financial services;
- Research conducted against the same parameters aiming to provide a basis for comparison.



Objectives:

- Measure the levels of access and usage of financial services and describe its landscape;
- Compare access levels across countries;
- Support commercial innovation in the view that access to finance can only improve if financial services providers deliver products and services to more people.



Empirical evidence

- **Demand -Side Surveys: 2009 - 2011 (16 countries):**

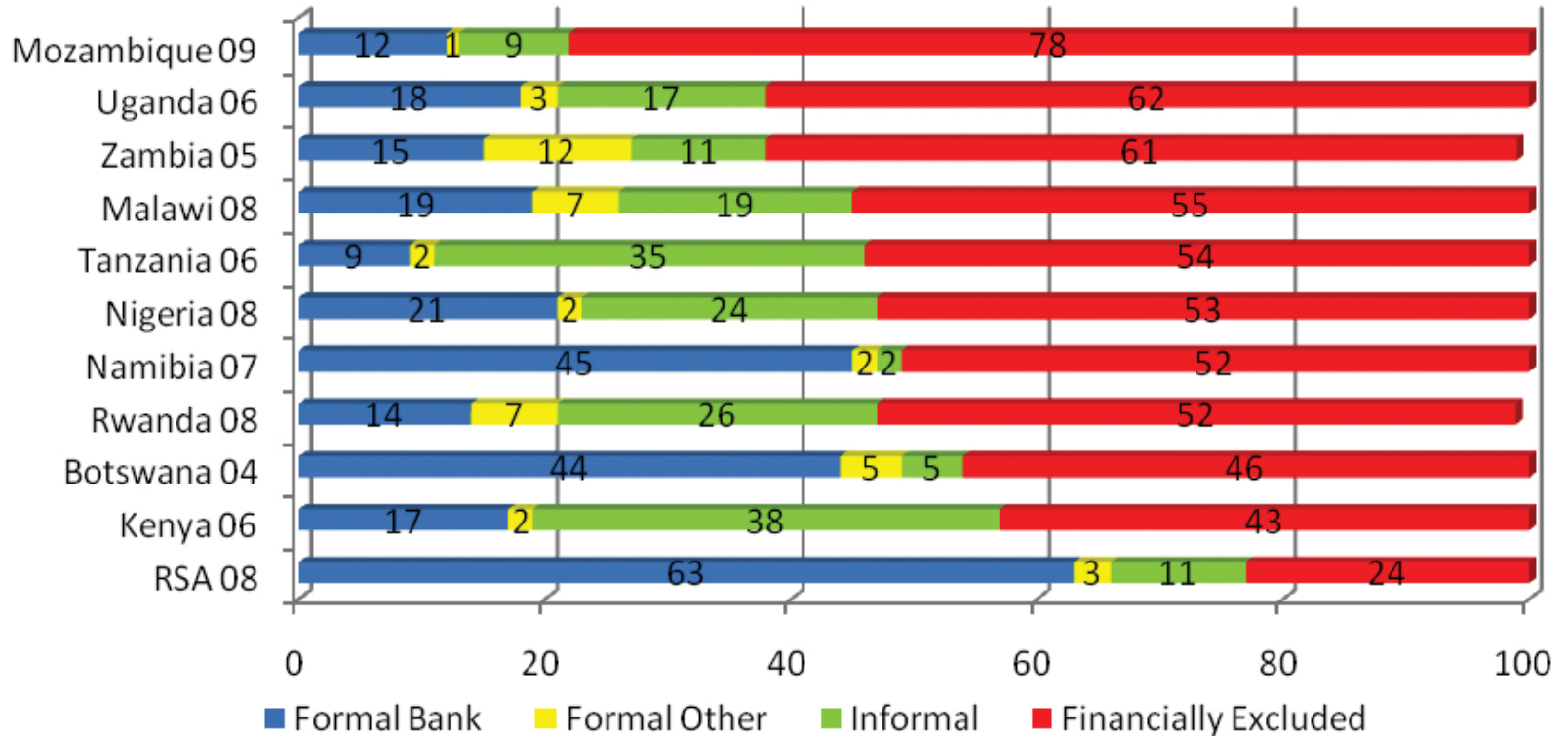
Mozambique; Botswana; South Africa; Swaziland; Lesotho; Malawi; Namibia.

- **Supply- Side Surveys: 2011**

Mozambique; Zimbabwe; Malawi, and Zambia



Peer comparison - Financial Access



Financial inclusion in Mozambique at a glance



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Country profile

Capital: Maputo

Population: 23.4 million

Area: 799.380 square km

Literacy: 47.8% people of the age of 15+ read/write

Currency: Metical

Landline telephones in use: 95.000 (2010)

Mobile phones in use: 6 million (2011)



Financial inclusion indicators

Indicators	2009
Adults with access to financial services (%)	22,2%
Adults without access to financial services (%)	77,8%
Adults served by formal financial services (%)	12,7%
Adults Served by informal financial services (%)	9,6%
Adults with bank account	11,8%



- Financial inclusion is one of the top priorities on the government agenda and is being promoted through several initiatives. Its at core of the forthcoming Financial Sector Development Strategy 2011-2020 (Draft recently submitted to the cabinet).
- BM recognizes that the scope and efficiency of the financial sector plays an important role in facilitating economic and private sector growth and therefore, in recent years, introduced various initiatives aimed at improving the countries framework enabling environment for the development of financial system.



- leveraging, in part, on the results from the surveys, Mozambican authorities see an opportunity for great leap forward in financial inclusion.
- In this regard, BM has instituted a regime on minimum fees and other expenses charged by commercial banks aiming at ensuring affordable and fair access to financial services by rural poor; on the same perspective, some economic and tax incentives were granted for opening branches in rural unbanked or underserved areas.
- There are innovations happening in Mozambique. The first mobile money issuer was launched in 2011.



- Several important new regulatory developments are taken place;
- Joined AFI, a network of policy makers in 2011 and since then benefits from the peer learning and knowledge exchange among its member. Part of working groups and recently joined the FIDWG;
- Task force to deal with financial inclusion matters.



Some general indicators – After 2009

	Dez-10	Dez-11	Mai-12
Bank account			
	1.803.534	2.115.620	2.197.598
With Mkesh	1.803.534	2.168.139	2.257.926
Mkesh accounts		52.519	60.328
Level of Bancarization			
	7,7%	9,0%	9,4%
With Mkesh	7,7%	9,3%	9,6%
Total population	23.405.670	23.405.670	23.405.670



Evolution of the banking industry since 2009

Instituições	2006	2007	2008	2009	2010	2011
Instituições de Crédito						
Bancos	12	12	14	14	16	18
Soc. de Locação Finan.	2	1	1	1	1	0
Soc. de Investimento	0	1	1	1	1	1
Instit. de Moeda Electrónica	0	0	0	0	0	1
Sociedades Financeiras						
Soc. de Capital de Risco	1	1	1	1	1	1
Soc. de Compras Grupo	1	1	1	1	1	1
Soc. Emitentes de Cartões	0	1	1	1	1	2



Evolution of the banking industry since 2009

Espécie	2006	2007	2008	2009	2010	2011
IMFs						
Microbancos	1	1	1	3	6	8
Cooperativas de Crédito	6	6	6	6	7	7
Organizações de Poupança e Empréstimo	0	0	4	9	10	10
Operadores de Microcrédito	57	74	73	95	118	167
Outras Instituições						
Escritórios de Representação	1	1	1	1	1	1
Nº. Total de instit. licenciadas pelo BM	105	121	126	153	184	238
Total de ATMs	376	425	508	614	731	850
Total de POS	3.218	3.645	4.103	4.526	4.731	6.618



- Entry of 4 new commercial banks from 2009;
- Licensing of Mozambican Interbank Society (National Processing Center)
- Launch of Mkesh, the 1st Mobile-Banking company licensed by the BM



- Increase in the number microfinance providers
 - Microcredit operators from 57 (in 2006) to 167 (in 2011);
 - Savings and credit organizations 10 in 2011;
 - 7 Microbanks.

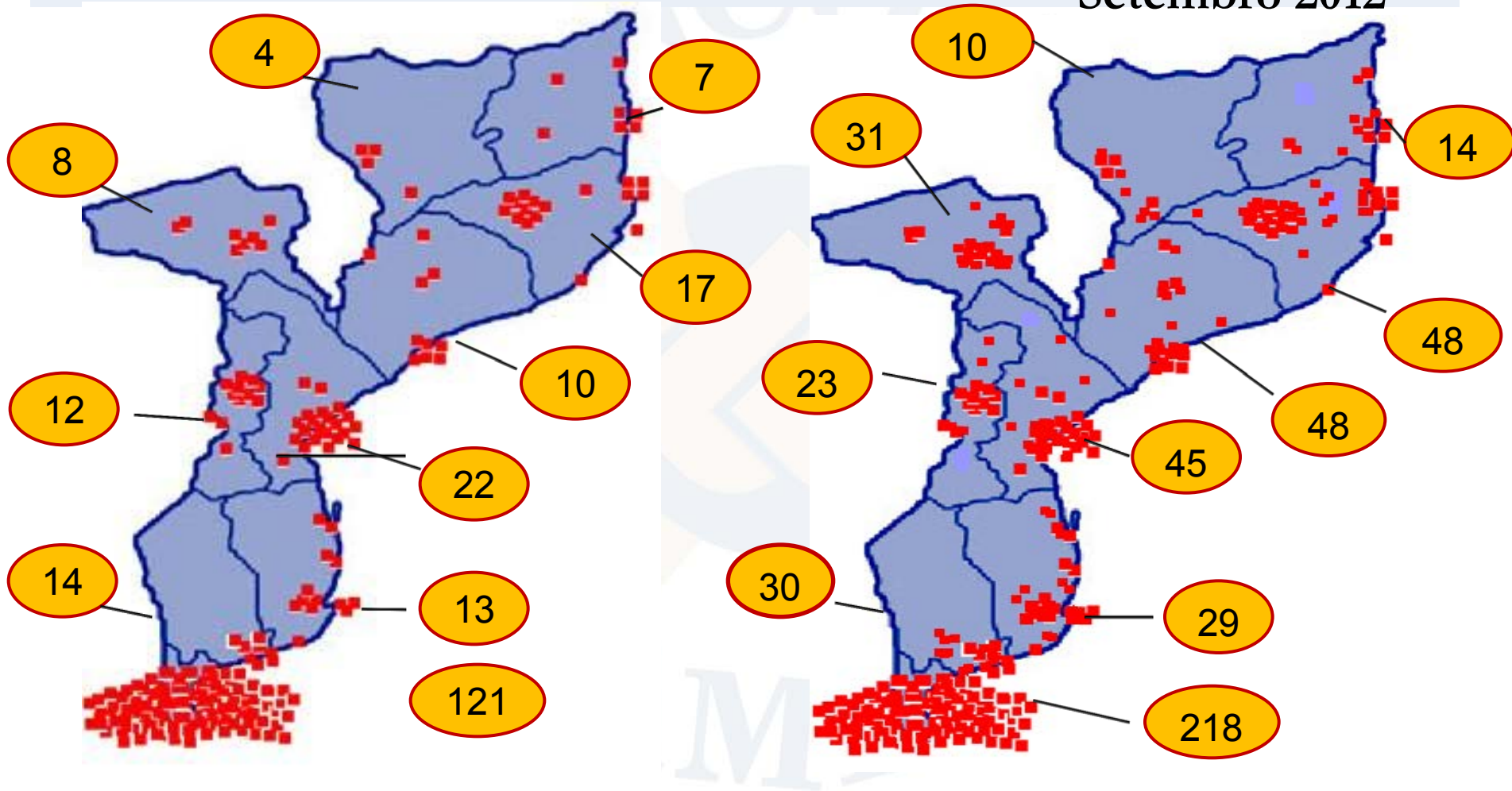


Financial inclusion – Distribution of the banking network

2006

network

Setembro 2012



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- Increase in bank branches from 228 in 2006 to 470 in September 2012;
- Increase in the banking network coverage in the districts to 58 in 2012 from 28 in 2006
- Increase of 41 branches in the districts in 2006 to 117 branches in September 2012



Thank You



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Sasana statement on financial inclusion indicators

On 5 and 6 November 2012, Bank Negara Malaysia co-sponsored an international meeting at Sasana Kijang, Kuala Lumpur, to discuss financial inclusion measurement and indicators. The other sponsor was the Irving Fisher Committee on Central Bank Statistics (Irving Fisher Committee), a forum of economists and statisticians from 80 central banks from all regions, which operates under the auspices of the Bank for International Settlements. The meeting, which was presided by Deputy Governor Muhammad bin Ibrahim, who is also the Chairman of the Irving Fisher Committee, yielded the following insights:

1. Greater financial inclusion is essential for accelerating and sustaining employment, economic growth and financial stability. There is currently no standard definition on financial inclusion. In a narrow sense, it refers to the delivery of accessible, affordable, appropriate and cost-effective financial products and services to unserved or underserved households. The definition is sometimes extended to also include products and services to unserved or underserved enterprises. In its broadest form, financial inclusion takes into account the qualitative aspects of inclusiveness such as financial literacy and consumer protection.
2. As in other policy areas, good policy requires good data, at both the macro and micro level. The meeting highlighted the crucial role of measurement and performance indicators for the promotion of financial inclusion. Useful initiatives have been taken at the international level to provide guidance on the collection and dissemination of data on access to and usage of the financial products and services, as well as qualitative aspects of financial inclusion. International data-related initiatives include those of International Monetary Fund, the World Bank, the G20, Consultative Group to Assist the Poor, and International Finance Corporation, the Alliance for Financial Inclusion (AFI) and its Financial Inclusion Data Working Group (FIDWG), and Microfinance Information Exchange.
3. Many developing, emerging, and advanced countries are implementing current international recommendations related to data frameworks and methodologies for financial inclusion indicators. Nevertheless, they have yet to be fully used by all countries due to diverse levels of financial inclusion across countries. Many are also participating in internationally-coordinated data collection initiatives in order to map financial inclusion in their jurisdiction and make data more comparable across countries.
4. In addition, countries are implementing country-specific data-driven approaches to measure financial inclusion by different dimensions, including financial literacy, consumer protection, household indebtedness, micro credit, the financing of small and medium-sized enterprises and community development.
5. Central banks in different regions in the world have a clear interest in promoting financial inclusion, in particular by improving policy-relevant data. This includes the development of composite indicators or indices of financial inclusion at the national and international level. While the appeal for such interest is well-founded, a number of methodological issues need to be

carefully considered in using such indicators for policy development purposes, both in terms of comparing financial inclusion across different countries and over time.

6. The Irving Fisher Committee stands ready to contribute to international efforts in the standardisation of the relevant financial inclusion measurement and development of composite indices or dashboards. The statistical expertise of Irving Fisher Committee members is available to national and international organisations and groups.