

**Policy paper**

# Financial inclusion measurement for regulators: Survey design and implementation

---

---



# Contents

<b>Executive summary</b>	<b>01</b>
<b>1 Measuring financial access</b>	<b>03</b>
<b>2 Defining financial inclusion</b>	<b>04</b>
2.1 Components of financial inclusion—what is being measured?	04
2.2 Creating measurable goals - what are the benchmarks for success?	05
<b>3 Determining data needs</b>	<b>07</b>
3.1 Using data to aid policymaking	07
3.2 What policy questions can different survey designs answer?	08
3.3 What can be gained from gathering data from different sources?	09
3.3.1 Supply-side surveys	09
3.3.2 Demand-side surveys	11
3.3.3 Key attributes for demand-side surveys	12
3.3.4 Combining data	15
3.4 What variables are needed to answer policy questions?	15
<b>4 Practical implementation</b>	<b>17</b>
4.1 Take an inventory of existing data collection efforts on both demand- and supply-side	17
4.2 Consider use of data by stakeholders	17
4.3 Options for creating new data sets	18
4.3.1 Enhancement of existing surveys	18
4.3.2 Implementing a new survey	19
4.4 Increasing the use of survey data	19
4.5 Role of the regulator	20
<b>5 Conclusion</b>	<b>21</b>
References	22
Additional resources	24



# Executive summary

## 1 Background

Having appropriate and up-to date information about levels and trends of financial inclusion is a critical first step towards devising relevant policy approaches to further deepen the reach of the financial sector. Interest in collecting such data is increasing across the globe, resulting in the development of a number of cross-country and country-specific data collection strategies in recent years.

## 2 Objectives

This report aims to inform financial policymakers and regulators on how to develop a strategy for gathering financial inclusion data using surveys of different kinds. Depending on the financial resources and skills available, as well as stakeholder appetite for data, these strategies can range from simply leveraging already available data sets, to modifying existing surveys to include new questions on financial inclusion, or even to designing and implementing a new financial survey. In this report, we weigh the advantages and disadvantages of each approach.

## 3 Structure

This report is organized to systematically take the reader through a decision-making process to determine the appropriate research strategy. We show how financial inclusion data can be used, what survey techniques can be used to collect relevant data, and finally how to balance informational needs with resource availability. After a brief introduction that lays out this process, section 2 focuses on developing a coherent definition of financial inclusion, which influences both data collection and policy direction. Section 3 discusses how data needs are assessed by describing the core elements of financial access surveys, with particular focus on the types of policy-related questions that can be informed by this data. Section 4 moves into the practical aspects of implementing a data collection strategy, discussing the activities, costs and tradeoffs that must be considered when developing a research strategy.

## 4 Key insights

- **The core elements of defining financial inclusion, setting appropriate policies and regulations to increase inclusion and designing data to monitor progress inherently work together.** Definitions of financial inclusion set the benchmarks against which policy is developed and monitored as well as providing the guidelines for data collection with which to inform policy. All three elements rely upon each other, so being precise, and realistic, when decided upon a definition of financial inclusion is important.
- **Financial inclusion can be viewed through different lenses.** We offer four examples of these lenses, which increase in complexity: access, quality, usage and welfare. Financial inclusion as defined by these lenses grows increasingly complex and harder to measure against benchmarks, so establishing a definition should take into consideration the resources available for data collection.
- **Data collection can vary significantly in terms of design, source and questionnaire design and data needs should be assessed with respect to each.** Sourcing data from financial institutions, i.e. supply-side data, can be cost-effective, but are not able to reveal information about the client experience and the needs of non-consumers that household or individual level, i.e. demand-side, surveys can reveal.
- **Different policy questions dictate not only the specific variables to be collected but also influence the way in which data is collected.** One-time cross section surveys can be effective for providing insights on which segments of the population are financial excluded, but they are not effective for monitoring or impact if collected only once.

- **The complexity of the policy and research objectives should drive the complexity and budget for the research design.** Simpler questions of financial inclusion, e.g. those dealing with access, require less robust data for sufficient analysis and therefore may not justify complex and costly surveys. On the other hand, more difficult survey questions, such as those relating to impact, require more investment to deliver appropriate results.

## **5 Practical recommendations**

- **There are several ways to improve data availability for financial inclusion.** Before any new survey efforts are initiated, we recommend analyzing all available data, both from supply-side and demand-side sources. This serves the purpose of not only highlighting the gaps that need to be filled, but the inventory can also be used to make the case to push a financial inclusion agenda forward. The decision of how to collect further data, or whether more data collection is warranted at all, involves a trade-off between resource constraints, the size of the information gap to be filled and the data-driven needs of stakeholders.
- **In addition to their own needs, financial regulators should consider how inclusion data from surveys might also be used by different stakeholders and design an appropriate engagement and dissemination approach in order to maximize the value of their data-collection effort.** Other industry players may find the data useful in motivating changes to their own approaches.

# 1 Measuring financial access

Financial development is becoming increasingly important within development agendas globally. For some time, this has included financial deepening—i.e. the expansion of credit and financial flows relative to GDP—which has been shown to have a strong link to economic growth.<sup>1</sup> More recently, attention has become focused on *financial inclusion*—the percentage of the population with access to formal financial services—which has been shown to as an effective tool against poverty alleviation.<sup>2</sup>

Increasingly, policymakers and regulators are recognizing the need to develop evidence-based approaches to identify and promote drivers to expedite nation-wide integration into formal financial systems. Creating appropriate data sets which accurately elucidate the state of financial inclusion can aid policymaking by helping to “*focus the attention of policymakers and allow them to track and evaluate efforts to broaden access*” (Beck and Demirgüç-Kunt (2008), p. 393). A number of countries have begun to assess and implement their own data collection efforts to support this need. In the words of a presentation given by a representative from Mexico’s Comisión Nacional Bancara y de Valores (CNBV) at the 2009 AFI Global Policy Forum,<sup>3</sup> “...countries which wish to promote financial inclusion must first define the concept and then measure and monitor it over time.”

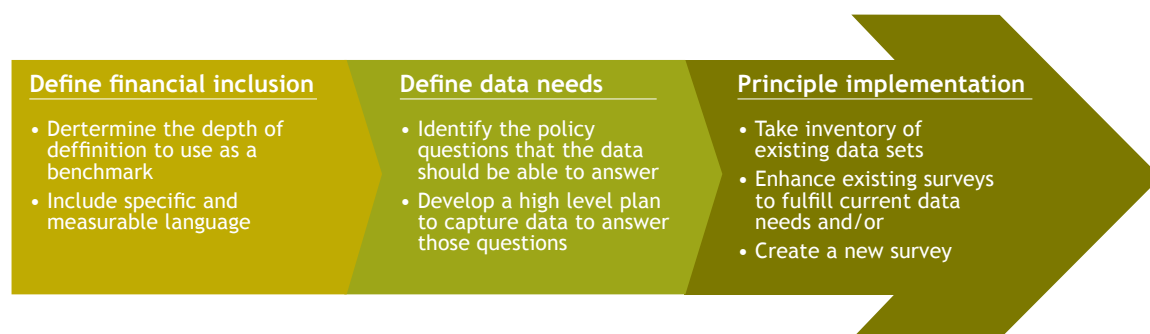
Exactly how to create the data to “measure and monitor” financial inclusion is not straightforward. Surveys appropriate for generating such data sets require both skills to manage and adequate funding to undertake. Judging by the popularity of the Global State of Financial Inclusion session at the 2009 AFI Global Policy Forum,<sup>4</sup> policymakers appear eager to obtain the tools with which to determine the most effective mechanism for gathering information.

This paper aims to inform financial policymakers and regulators on how financial inclusion data can be collected to provide a means of monitoring and promoting financial inclusion. Specifically, we describe a framework for developing a data collection strategy, which involves:

- **developing a measurable definition of financial inclusion;**
- **determining data needs with regards to developing appropriate and relevant policy; and**
- **implementing a plan to gather data in the most cost-effective and efficient manner.**

This process is described in Figure 1 below and this paper follows this progression. The bulk of the paper will describe the various steps, paying particular attention to how data development looks to inform decisions considered by policymakers and regulators. While it is our hope that, after reading this paper, policymakers will feel confidently armed with the appropriate tools to devise evidence-based solutions to help increase levels of financial inclusion, it must be emphasized at the start that there is not one “correct” strategy that can be universally applied to all situations. Therefore, the focus of this paper will be on enhancing the readers’ ability to make informed decisions about how best to gather the most suitable data to ask and answer the questions most relevant to their respective national context.

**Figure 1: Decision making process**



<sup>1</sup> See, for example, King and Levine (1993), Beck, Demirgüç-Kunt and Levine (2007), and Giné and Townsend (2004).

<sup>2</sup> See Burgess and Pande (2005), Beck, Levine and Levkov (2007) and Bruhn and Love (2009), which are discussed in more detail in section 3.2.

<sup>3</sup> Presentations given at the AFI Global Policy Forum can be found on <http://www.afi-global.net/gpf09/agenda.htm>.

<sup>4</sup> This session was rated the third most popular according to a poll taken by AFI.

## 2 Defining financial inclusion

An evidence-based approach to policymaking, guided by a *thoughtful and focused* data collection strategy, is critical to ensure efficient use of resources towards delivering results with impact. Developing a contextually relevant definition of financial inclusion up front can provide helpful direction not only by guiding what variables to measure, but also by identifying the benchmarks against which success or failure is measured. How financial inclusion is defined is therefore likely to influence the nature of the study undertaken.

### 2.1 Components of financial inclusion—what is being measured?

Financial inclusion by itself is a multi-faceted concept with a number of nuanced components, all or some of which may be relevant to the specific country agenda. Below we offer examples of four commonly used lenses through which financial inclusion can be defined, in order of complexity:

- I **Access** - This component is concerned primarily with the *ability* to use *available* financial services and products from formal institutions. Understanding levels of access may therefore require insight and analysis of potential barriers to opening and using a bank account for any purpose, such as cost and physical proximity of bank service points (branches, ATMs, etc). A very basic proxy for access can be derived through counting the number of open accounts across financial institutions and estimating the proportion of the population with an account. Data on access can usually be obtained through information provided by financial institutions.
- II **Quality** - As a measure of the relevance of the financial service or product to the lifestyle needs of the consumer, quality encompasses the experience of the consumer, demonstrated in attitudes and opinions towards those products that are currently available to them. The measure of quality would therefore be used to gauge the nature and depth of the relationship between the financial service provider and the consumer as well as the choices available and their levels of understanding of those choices and their implications.
- III **Usage** - Concerned with more than basic adoption of banking services, usage focuses more on the *permanence* and *depth* of financial service / product use. In other words, determining usage requires more details about the regularity, frequency and duration of use over time. Usage also involves measuring what combination of financial products is used by any one person or household.
- IV **Welfare** - The most difficult outcome to measure is the impact that a financial device or service has had on the lives of consumers, including changes in consumption, business activity and wellness. Distinguishing the role of financial services on the people's lives, without mistaking it for another concurrent factor, such as increased income, requires a certain research design, discussed in section 3.1. In order to acquire information on quality, usage and welfare, it is critical to have information from the user's point of view, i.e. data gathered through a demand-side survey.

<sup>5</sup> Practically speaking, definitions with increased complexity require analysis with heightened rigor. It is therefore advisable to consider the level of available resources and skills to guide decisions about the complexity of the financial inclusion benchmark.

<sup>6</sup> In 2003, FinScope ([www.finscope.com](http://www.finscope.com)) found that 88% of households in Swaziland are seen as excluded based on the costs associated with transaction accounts).

<sup>7</sup> Kempson, et al. (2000), for example describe a list of potential barriers to inclusion which include geographic access, risk assessments of low-income customers, prohibitively high product costs, etc.

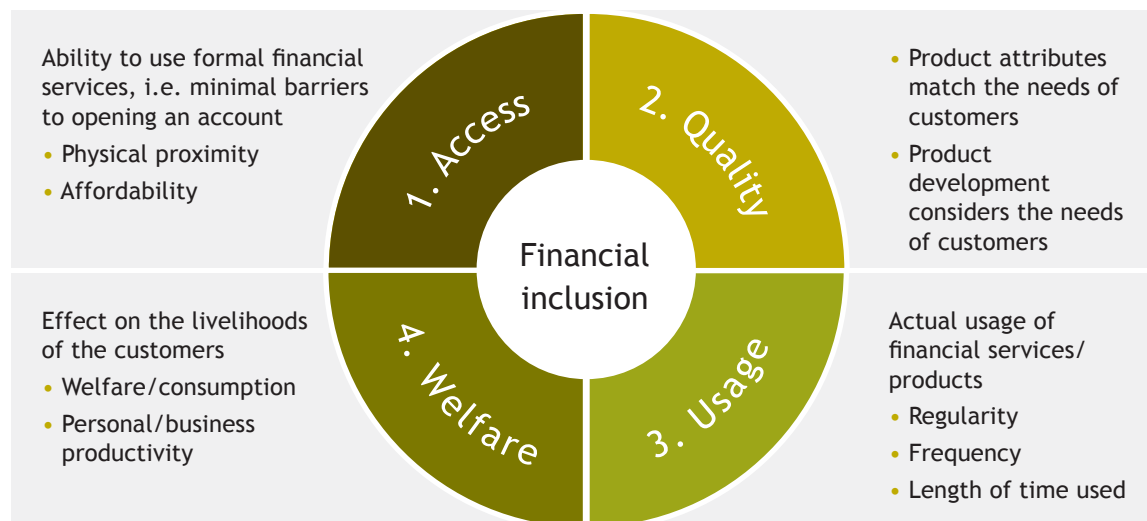
<sup>8</sup> See section 4.1 which discusses concerns associated with these measures.

<sup>9</sup> See, for example, Kempson, et. al (2000), which argues that the majority of current accounts in Britain are inappropriate for the needs of low-income individuals.



## 2 Defining financial inclusion continued

**Figure 2: Possible lenses to measure financial inclusion**



### 2.2 Creating measurable goals - what are the benchmarks for success?

Transforming policy objectives into clear and objectively measurable standards is a critical step to designing a research strategy. In doing so, it is essential to involve specific and measurable language, so as to provide clear guidance in terms of data points to track and goals against which to gauge performance. To exemplify this point, we compare the UN Vision of Inclusive Finance,<sup>10</sup> which espouses high-level ideals of financial inclusion, with the South African Financial Sector Charter's<sup>11</sup> more precise definition of "effective access."

The UN Vision's high-level standards, while comprehensive, are difficult to measure. For example, such words as "reasonable" and "appropriate" are prone to multiple and subjective interpretations. Furthermore, such standards do not provide a clear path for measurement. On the other hand, the South African Charter's specificity with respect to geographical access better serves the purpose of measurement, as the Charter not only paints a clear picture of a key dimension of the ideal (effective access), but also defines it in a way that supports measurement and monitoring (e.g. 20 kms distance to the nearest service point). It furthermore defines the target group to be served in specific terms in currency in the local market.

It is instructive to notice that, while the goals of the South African Charter are clear and measurable, they are limited to defining financial inclusion by access—definitions being explored in other countries are implicitly measuring quality, usage and welfare. In a presentation given at the AFI 2009 General Policy Forum in Nairobi, Mexico's Comisión Nacional Bancara y de Valores (CNBV) clearly suggested that the definition of financial inclusion should include not only access but also use of financial services. This more ambitious definition of the CNBV would require data not only from financial institutions but also from users of financial services themselves. A presentation given by the Bank of Thailand suggested an even more ambitious definition, which included capturing an improvement in wellbeing resulting from financial access, literacy and consumer protection. Currently, the available data is not able to measure progress based on this definition but, having reached more clarity on its exact goals, the Bank of Thailand has a clear roadmap of what needs to be done to gather the necessary data.<sup>13</sup>

<sup>10</sup> Available at: <http://www.unctf.org/english/microfinance/index.php>

<sup>11</sup> Available at: [www.fscharter.co.za/](http://www.fscharter.co.za/)

<sup>12</sup> LSM 1-5 are market segmentation measures in widespread usage to denote households with specific low-income characteristics.

## 2 Defining financial inclusion continued

### UNCDF - Vision of inclusive finance

With a view to significantly increase outreach...each developing country should have a continuum of financial institutions that... would be characterized by:

- a access at a **reasonable cost** of all **households and enterprises** to the **range of financial services for which they are "bankable,"** including **savings, credit, leasing and factoring, mortgages, insurance, pensions, payments and local and international transfers;**...

### South Africa charter

**Effective Access means:**

- a Being within a distance of 20kms to the nearest service point at which first-order retail finance services can be undertaken, and includes ATM and other origination points...
- b Being within a distance of 20km to the nearest accessible device at which an electronic (other than ATM) service can be undertaken
- c A sufficiently wide range of first-order retail financial products and services...which are aimed at and are appropriate for individuals who fall into the All Media Product Survey (AMPS) categories of LSM 1-5...

**First order retail products and services means:**

- a Transaction products and services...for day to day purposes
- b Saving products and services
- c Credit for low-income housing (definition provided)
- d Insurance products and services

The depth and extent of a financial inclusion definition is the result of, among other factors, the financial resources and skills available for the data requirements inherent in this definition. The progression within Figure 2 suggests the degree of difficulty of measurement, and hence the amount of resources necessary, of each lens. As the next section will reveal, measuring access may be accomplished relatively easily with data from institutions, which may already be in hand within the regulatory agency, while measuring impact on wellbeing requires specific sampling techniques and repeated surveys of individuals and/or households.

<sup>13</sup> Presentations given at the AFI Global Policy Forum can be found on <http://www.afi-global.net/gpf09/agenda.htm>.

### 3 Determining data needs

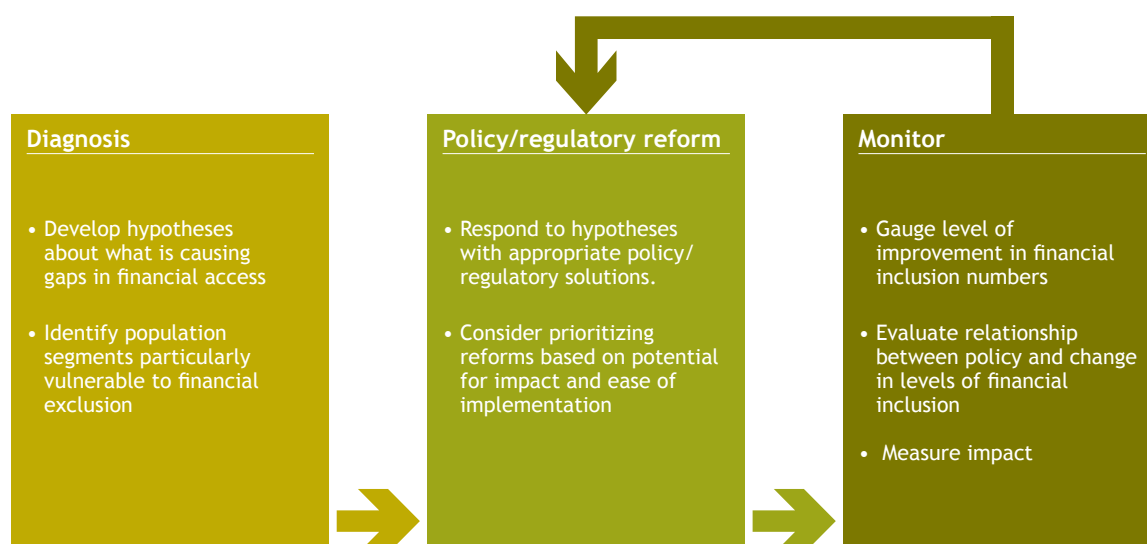
With a clear definition of financial inclusion in hand, the next step is to understand the design, sources of information and variables needed to collect to develop and monitor policies to increase financial inclusion. Although it is enticing to rush immediately to the survey design stage, it is extremely useful to first clearly define what the data will be used for, which ultimately helps ensure that the data that is collected can address the questions at hand.

#### 3.1 Using data to aid policymaking

Ultimately, the policy objectives pursued will tie closely to the definition of financial inclusion adopted, as well as the data that is collected. At a very high level, there are two primary objectives for which data can be used to support policymaking:

- I Diagnosing the state of financial inclusion to help develop policy solutions
- II Monitoring the growth of financial inclusion to accordingly modify or create new policy reforms

**Figure 3: Sequence of data usage in policymaking process**



As Figure 3 above shows, appropriate data can tell us if there is a problem that needs to be resolved, as well as monitoring whether it in fact does get resolved. For example, in the diagnosis, we may find that certain parts of the population are systematically excluded from the financial sector. Or we may find that certain parts of the population are over-indebted. The correct policy response will not only respond with solutions but will be able to prioritize the solutions. One way of prioritizing would be based on the vulnerability of the population affected, for example. Another would be based on the ease or expense of implementation relative to the size of the population reached or the severity of the problem. Once policy is implemented, data continues to play a role in monitoring its effectiveness. This can be as simply tracking the level of inclusion over time, or it may be done by determining the measurable impact from a policy decision against the cost of its implementation. This monitoring function then provides a key component of the feedback loop in the process of refining or re-defining policy reforms.

### 3 Determining data needs continued

#### 3.2 What policy questions can different survey designs answer?

Broadly speaking, survey design describes the type of sampling used and whether surveys are repeated. Survey designs depend on the nature of issues being investigated. We envision three different, though not necessarily progressive, categories of questions which can be answered using survey designs of differing levels of complexity.

Even the more basic design (e.g. a one-time cross-sectional view of financial inclusion) can help establish a great deal of understanding. For example, as shown in Table 1, the first category of questions can be used to help set the direction and priorities for regulation by simply establishing the current status of financial inclusion, e.g. what parts of the population are unbanked, or do not have access to credit. In other words, this helps the “diagnosis” part of Figure 3. Including basic questions that query the experiences and knowledge of consumers can help direct attention towards possible regulations that might be required to provide sufficient consumer protection. For example, one central banker in Kenya found the FinAccess survey, which at the time was a one-time cross section, extremely helpful, since *“Once we have information on the landscape it becomes much, much easier to chart policy. When we were approving M-Pesa for instance ... we became more systematic. We could say, ok, let’s protect consumers but let’s go ahead.”* (Bankable Frontier Associates (2009b), p.21). One time cross sections can also provide some initial understanding of why consumers might lack access - perhaps financial institutions are too far away, or unfriendly, or do not work with illiterate people.

Category 2 questions can help address some aspects of the “monitoring” part of Figure 3. These questions require additional data that can be accessed across two additional dimensions: time and space. At a national level, it is possible to set internal benchmarks off of past performance in order to measure progress and continue to maintain focus on the issue of financial inclusion.<sup>14</sup> Goals such as measuring improvements in financial inclusion, financial literacy or better consumer protection would be undertaken by such designs. This would require what is called “repeated cross sections,” or simply periodic repeats of “category 1” surveys.

Comparisons to other similar countries can also be extremely useful in setting benchmarks and establishing progress. For example, one member of the Financial Sector Development Programme steering committee at the Bank of Zambia, found the benchmarking data of FinScope extremely useful, as *“It gives us the stark reality of how well or poor Zambia is doing compared to other markets.”* (Bankable Frontier Associates (2009b) p.19). What is required here is simply formulating questions in a way that is comparable to other financial access surveys.

Finally, category 3 questions require surveys that are designed to measure impact of financial inclusion. This is the most challenging purpose for which to collect data, as it often entails specific and often complex sampling considerations. However, if done correctly, the results can be powerful. Burgess and Pande (2005), for example, showed that an explicit policy forcing banks to extend branches into rural unbanked locations in India, via deposit mobilization and credit disbursement, significantly reduced rural poverty. Additionally, Beck, Levine and Levkov (2007) used the Current Population Survey in the U.S., complemented with state level data, to exploit differences in liberalizing regulatory restrictions on intra-state branching to show that deregulation lowered income inequality by reducing earnings gaps.

To measure the impact of policies more is needed than simply asking the right questions. In order to distinguish the impact of the financial access policy from anything else affecting the lives of the target population, one needs surveys collected over time as well as a control group which is not affected by the policy. Moreover, the control group needs to be as similar as possible to the group affected by the policy. This usually means taking advantage of what is called a “natural experiment,” i.e. policies or regulations being implemented on one group that is distinct but similar to a control group. In both the papers discussed above, differences in implementations of policies at state level were used to establish impact.

<sup>14</sup> As was determined during a recent review of FinScope’s effectiveness, it often takes time to work the adoption of data into regularly functioning information structures. Time is also needed to develop trust and understanding to fully appreciate the benefits of increased market-level data (Bankable Frontier Associates, 2009b. p. 31-32).

### 3 Determining data needs continued

**Table 1: Questions answered by data designs**

Category	Questions they may ask of the data	Decisions they may take, based on the data	One-time cross-section	Internationally comparable data	Data collected over time	Data designed to measure impact
1. Basic questions that help define aspects of the financial landscape	Which population segment lacks what type of financial services?	- Targeted regulation - Further research / deeper survey	X			
	Why do they lack access?	- Begin to identify barriers to formulate policy	X			
	How much use takes place from informal / unregulated services?	- Begin to identify at risk consumers	X			
	What is the evidence of consumer abuse?	- Targeted regulation	X			
2. Comparative questions across time and countries	How do I compare to what I consider to be my peer group? (by regional or level of income)	- Whether any reform or action is required	X	X		
	What targets should I set for access which I can measure credibly?	- Choice of targets	X	X		
	Is inclusion and protection improving over time?	- Targeted regulation			X	
3. Impact questions	Impact of the policy on financial inclusion?	- Expansion / modification of regulation			X	X
	Welfare impact of expanding financial inclusion on the target population?	- Expansion/ modification of policy			X	X

### 3.3 What can be gained from gathering data from different sources?

Financial inclusion data may be distinguished based on data source, namely: supply-side (collected from financial institutions or other providers) and demand-side (household or individual level studies of the consumer). Both play important roles in measuring financial inclusion,<sup>15</sup> but each has different benefits and costs which must be considered in the overall data collection strategy.

#### 3.3.1. Supply-side surveys

Supply-side surveys typically capture information, such as number of accounts and product specifications, from financial services providers, in order to estimate the percentage of the population that uses financial services. Moreover, financial service providers could be asked to report on their physical outreach, specifically on the number of branches, ATMs, etc., which, if combined with population data, can be used as a proxy for determining the level of access to financial services.

<sup>15</sup> Honohan (2005) argues that any data collection exercise must strive to understand both the supply and demand-side of financial services.

### 3 Determining data needs continued

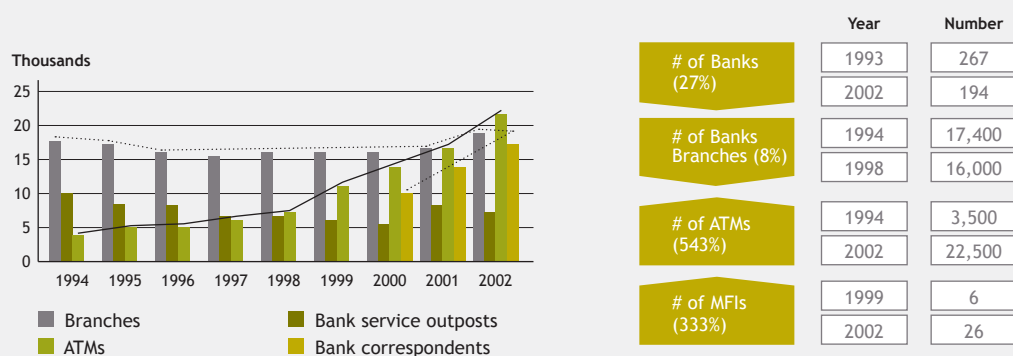
For example, Beck, Demirgüç-Kunt and Martinez Peria (2007) used two different supply-side indicators to determine the level of financial access in 99 countries. Specifically, they used information on the number of branches and ATMs per capita / square kilometer to estimate financial access, arguing that such an indicator shed light on the level of opportunity a household or enterprise has to engage a financial service provider. They also collected information on the number and size of deposit and loan amounts relative to population and GDP per capita to determine use of such services. The World Bank (2008) published separate reports on data drawn from 50+ countries on costs associated with opening accounts and location of bank service touchpoints to identify potential barriers to financial access. In the same vein, Honohan (2005), put forward that the impact of potential price barriers (determined by cost of products and services), *information* barriers (determined by level of information about actual credit risk of unbanked populations), and *product and service design* barriers (judged on the suitability of products and services to the needs of the poor), can be informed by supply-side data.

Most of the progress to date in building cross-country datasets has been on the supply side, largely because this data tends to be already available from most regulators. CGAP, for instance, has undertaken one of the most wide-reaching efforts, collecting annual data from approximately 130 country regulators about banking activity and other matters.<sup>16</sup> In 2009, the IMF also announced an effort to include eight financial inclusiveness indicators collected from regulators in its annual International Financial Statistics publications which cover roughly 190 countries.<sup>17</sup>

Practically speaking, supply-side data may be the easiest and least expensive way to collect financial access data as bank regulators or central banks may already be collecting this data from financial institutions. If this is the case, aggregation could be the only activity required. In other cases, existing reporting requirements may need to be modified to include more relevant or disaggregated data needed for financial inclusion measurement.

#### Box 1: Access to financial services in Brazil, World Bank (2005)

Kumar et al (2005) set out to assess the level of access to financial services in Brazil. In order to do so, a World Bank team collected a number of different supply-side and demand-side measures. First, information was gathered about the presence and spread of financial institutions or service points (e.g. branches, ATMs, etc) in the 1990s. As shown below, the number of banks decreased from 267 in 1993 to 194 in 2002, and the number of bank branches reduced from 17,400 in 1994 to 16,000 in 1998, reflecting recent reform policies, including stricter prudential regulations on entry and operation. However, during the same time period, there was a surge in the number of ATMs from 3,500 to 22,500, and a rapid expansion of microfinance institutions (MFIs) from a low base- both factors which countered the notion that banking services were made less available. In particular, the study drew attention to the rapid increase in bank correspondents as a new channel to serve remote areas such that, despite declining numbers of branches, Brazil had nonetheless achieved the norm of having a financial touchpoint in every municipality.



<sup>16</sup> The latest results are due for publication by the fourth quarter of 2009.

<sup>17</sup> The 8 indicators will track the number of all financial institutions, including branches, ATMs, number of depositors and borrowers, and financial services (deposits, loans, insurance technical reserves).

### 3 Determining data needs continued

However, because supply-side data often focuses on accounts and branches, rather than actual customers,<sup>18</sup> the results usually need complementary demand-side data to provide a full picture of financial inclusion of *quality, usage* and *welfare*. Even measuring access to financial services using supply-side data alone has the following limitations:

- **Data may be susceptible to double counting** - since it is difficult to parse out accounts owned by the same customer, supply-side data may lead to an overestimation of the actual financial outreach.<sup>19</sup>
- **Data may be difficult to segment** - Without information about the demographics of the customers, it is difficult to understand the segments of the population being served by institutions (and not being served) and thus develop appropriate regulation to release specific barriers to access that are relevant to these populations.
- **Data may be difficult to aggregate** - the variety of institutions, diverse array of products and services and different internal reporting systems, make it particularly difficult to aggregate data to derive a clear picture of the depth of the financial system.<sup>20</sup>

Nevertheless, Beck, Demirguc-Kunt and Peria (2007) found that “...in the absence of survey measures on the use of deposit and loan services for a broad cross-section of countries, our aggregate indicators provide an adequate approximation of the extent to which households and firms use deposit and loan services, respectively” (p.236).

#### 3.3.2. Demand-side surveys

While a basic estimate of outreach is helpful, a clear picture of financial inclusion requires input from customers (actual and potential) - particularly, whether financial inclusion is equitably distributed across the population. Because demand-side approaches are based on samples of households, often nationally representative samples, and collect demographic information about the respondent, the data sets can be disaggregated by income level, urban/rural residence, employment, etc, to ultimately help determine who is being served. As stated by Honohan (2005), “even if we had a credible measure of the penetration of financial services as a proportion of the population... we also want to know how many poor people have access...” (p.4) Demand-side studies are used to fulfill that purpose.

For various reasons, however, adequate demand-side information has been markedly lacking in most countries. Unlike supply-side studies, demand-side financial information is generally not already collected by government agencies, at least not in sufficient depth to measure inclusion. Although most countries have a household-level income and expenditure survey which may include some questions on financial access, these surveys collect a broad range of household information, and rarely provide enough detail about financial inclusion to be adequate. Furthermore, household surveys are expensive, and generally only carried out every few years (Kneiding, Al-Hussayni and Mas, 2009).

There are, however, two examples of national surveys that focus purely on financial access and which have already been conducted across a number of countries in the past five years or so: FinMark’s FinScope survey and the World Bank’s Financial Access Surveys.

FinScope ([www.finscope.co.za](http://www.finscope.co.za)), a nationally representative study of consumers’ perceptions on financial services and issues was first conducted in South Africa in 2003, and has since expanded into 14 other African countries, plus Pakistan. It is run annually only in South Africa, but in five other countries (Kenya, Tanzania, Botswana, Uganda and Zambia), FinScope is being conducted for a second time. It is an individual-level survey which focuses on collecting comprehensive demographic information, financial usage and psychographic information about the respondents. This information is then used to create comprehensive metrics on the use, access and attitudes to credit, savings, and other financial products. While it has been primarily used by the private sector, FinScope data has also proved useful to the public

<sup>18</sup> Honohan (2005) posits that the same is not true for specialized microfinance organizations which tend to keep records about the customer

<sup>19</sup> Christen et al. (2004), for example, performed a one-time aggregation of account data from ‘alternative’ financial service providers across 148 countries, though highlighted the methodological flaw of equating number of accounts with number of clients.

<sup>20</sup> See Honohan (2005).



### 3 Determining data needs continued

sector. The FinScope team is based within FinMark Trust, an Africa-focused financial sector development trust supported by the U.K.'s Department for International Development (DFID). However, FinScope surveys are consciously undertaken with the cooperation and support of local policymakers, and ideally, the process of questionnaire design and data dissemination is coordinated within a local institution, usually the Central Bank. In this way, FinScope actively seeks to engage the policy community and ultimately aims to have the supporting institution "own" the process of running further iterations of FinScope.

The *World Bank's Financial Access Survey* has several distinct differences from FinScope. First, the World Bank surveys gather information at the household level. This survey has been conducted in about 10 countries in total. It has been conducted as a stand-alone survey that collects detailed information about the households' use of accounts at various financial institutions (bank and non-bank), proximity to the institutions, success or failure of loan applications, as well as other data. It has also been conducted as a short module to be added to other household surveys, like the Living Standard Measurement Survey (LSMS) to collect basic financial information about households. Second, unlike FinScope, which actively seeks to engage policymakers in the design and distribution of the survey, policymakers have considerably less "ownership" and control over the design of these surveys.

A significant challenge has been developing a demand-side survey which can produce comparable data across a large number of countries, analogous to the supply-side effort undertaken by CGAP and the IMF discussed above. In hopes of filling this gap, the Bill & Melinda Gates Foundation recently explored the feasibility of developing *Global Financial Access Snapshots* (GFAS)—a small set of access indicators gathered using an existing, nationally representative omnibus marketing survey. The module would focus on collecting consistent basic information about the respondents' use of financial services in over 100 countries.<sup>21</sup> However, even if the Foundation decides to proceed to fund such an exercise in 2009, it is unlikely that these indicators would be available much before 2011 due to the lead times involved.

#### 3.3.3 Key attributes for demand-side surveys

In order to effectively measure the spread of financial inclusion, demand-side surveys must be carefully conceptualized. There are four key issues to decide on when designing a household- or individual-level survey: Sampling, sampling unit, survey instrument and survey design.

- I **Sampling:** Most data uses such as those described in Table 1 require a nationally representative sample.<sup>22</sup> Specific tactics for gathering a sample with characteristics proportionate to the population are suggested in Figure 4, but, at the least, the sample must possess the following attributes to ensure the resulting data is adequately robust for analysis:
- **Sufficient size:** Small sample sizes, even if carefully collected, are susceptible to measurement error which when combined with potentially low levels of financial usage, could dramatically misrepresent the level of financial inclusion. The main concern is that a small sample has a higher chance of missing or insufficiently covering the affected population.
  - **Drawn from an appropriate sampling frame, such as a population census:** As national representation is key to most demand-side surveys, the use of the census or a similar set of information to draw the sample across the entire country is essential to build a sample that shares characteristics proportionate to the actual population.
  - **Random selection of respondents:** Again, in the pursuit of national representation, randomization helps ensure that all members of the population have an equal chance of being selected as part of the sample. Both household and, in the case of an individual survey, members within a household, must be selected randomly.

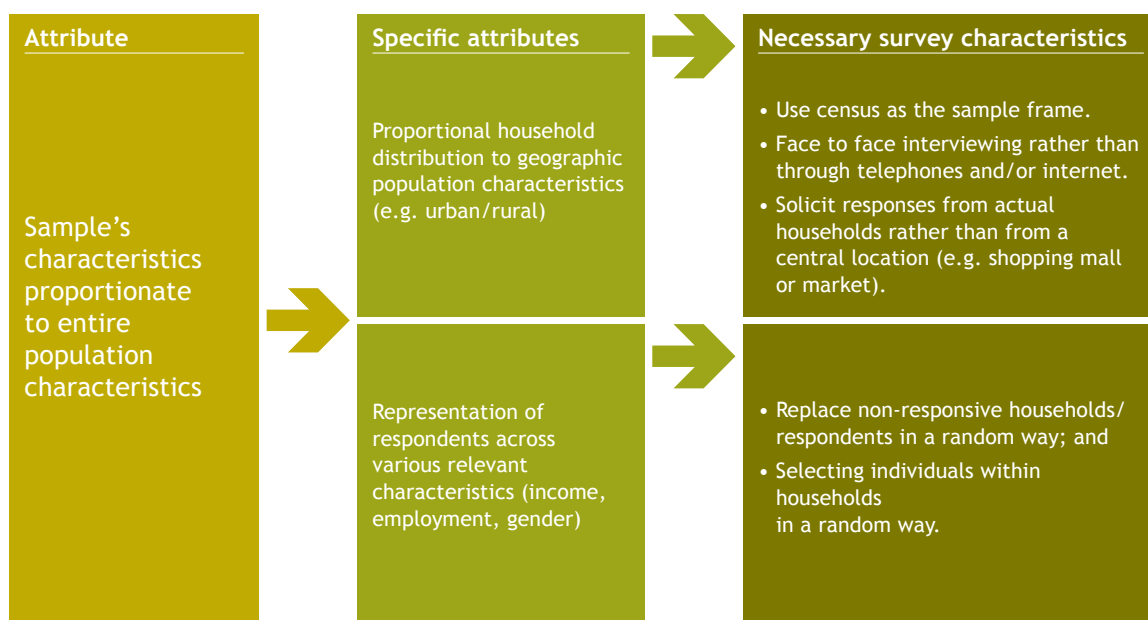
<sup>21</sup> Bankable Frontier Associates (2009a).

<sup>22</sup> The exception is category 3 questions of impact, which hinges far more on the random allocation of the sample between control group and the group affected by the policy than on issues of national representation).



### 3 Determining data needs continued

**Figure 4: Achieving representativeness in demand-side surveys**



**II Sampling unit:** Another crucial issue whether the survey unit is the household<sup>23</sup> or individual. An example of a household-level survey is the LSMS or World Bank Access to Finance Survey, while FinScope collects information about only one randomly chosen individual in the household. Both methodologies have relative merits, though using the household as the unit of analysis may provide a more robust perspective since the finances are often fungible across the household. Moreover, the randomly selected respondent may not have the best knowledge about what financial devices used in the rest of the household use. It is also very likely that there is no single person within a household that has full information about all the cash flows in and out of those devices.<sup>24</sup> Therefore, depending on the scope of the study, it may be ideal to interview all members of the household.

**III Survey instrument, or questionnaire:** Since the objective of measurement is not only to attain an overall national picture of financial inclusion, but so also to measure financial inclusion by relevant populations, it is important to gather other data (referred to as "covariates") such as income, age, education and household composition which enables segmentation. Recommended covariates for this purpose include are income (amount and source), education level, employment status, socioeconomic characteristics and household composition. As a simple guide, the table below shows what demographic information was collected by the World Bank Access to Finance Survey questionnaire in Indonesia.<sup>25</sup>

<sup>23</sup> Cull and Scott (2009), using a series of randomized experiments, find that rates of household usage are similar when the household head reports on household usage or when everyone in the household is questioned. However, randomly selecting a household informant provides a less complete picture of household use of financial services.

<sup>24</sup> Cull and Scott (2009), for example, identify the household head as the most important person to interview in a demand-side survey regarding financial access and use, but they also illustrate the limitations that can result when gathering information from a single household interviewee.

<sup>25</sup> Actual Indonesian survey is available at: <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTPROGRAMS/EXTFINRES/0,,contentMDK:21668967-menuPK:4730256-pagePK:64168182-piPK:64168060-theSitePK:478060,00.html>.

### 3 Determining data needs continued

**Table 2: Covariate data collected from Indonesia Access to Finance Survey**

Covariates	World Bank Household Access to Finance Survey collects information about...
<b>Income</b>	Different sources of income (wages, business, non-working income such as grant, rental income, interest) for the last 12 months, and for each household member separately.
<b>Education Level</b>	Highest level of education for each respondent
<b>Employment status</b>	Fulltime, part time, salaried or hourly-paid jobs, as well as self-employment.
<b>Source of Income</b>	Employment income, remittances, investments, etc.
<b>Socioeconomic characteristics</b>	Condition/materials of the house, electricity, water
<b>Household composition</b>	Number of people within household (defined as people, who as part or whole of a dwelling unit, have common arrangements for housekeeping and share at least one meal regularly).

**IV Survey design:** The last consideration is design of the survey, which was discussed in section 3.1 above. Table 3, below, provides additional details by describing different types of surveys with different designs and objectives, in order of complexity.

**Table 3: Different demand-side survey designs**

Type of survey	Definition	Survey Objective	Examples
<b>One-time cross-section</b>	Cross section of the population is randomly selected and interviewed once	Snapshot of current level of financial access	<b>FinScope</b> - All countries except for South Africa (though some countries are surveyed multiple times, though not at consistent intervals, and without prior understanding that survey will be repeated.  <b>World Bank Access to Finance</b> (add on to LSMS and stand alone) - 10 countries in total; household level survey conducted periodically, but not at regular intervals.
<b>Repeated cross section</b>	Cross section of the population is randomly selected and interviewed once. In the next time period (for example after 1 year), another cross section of the population (which resembles the first sample in terms of population characteristics) is randomly selected and interviewed once.	Monitor progress of financial access across time.	<b>FinScope</b> - South Africa: Conducted annually  <b>GFAS</b> - Global demand-side indicators to be collected every two years. Short questionnaire will be added onto an already existing survey which as a nationally representative sample.  <b>Survey of Consumer Finances</b> - U.S: a multi-year approach used by the United States Federal Reserve to assess consumer finance patterns
<b>Panel</b>	The same households/ individuals are interviewed multiple times at regular intervals.	Can be used to show a causal impact of changes in policy if combined with other factors.	<b>Financial Diaries</b> <sup>26</sup> - Household level survey conducted in 3 countries which studied the use of financial products and flow of financial services; conducted at the high frequency of every fortnight for one year.  <b>ENNViH (Family life survey)</b> - Mexico: Conducted regularly; Collects information on household income and expenditure; has some financial access questions, particularly credit.

<sup>26</sup> See [www.financialdiaries.com](http://www.financialdiaries.com) or [www.bankablefrontier.com](http://www.bankablefrontier.com) under the research heading for more information.

### 3 Determining data needs continued

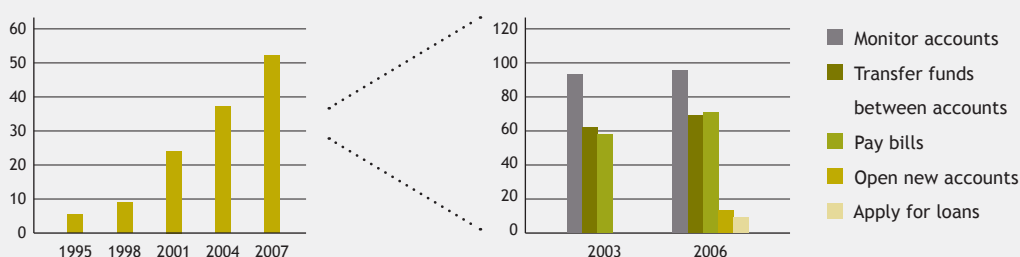
#### 3.3.4. Combining data

To summarize the above discussions, supply-side surveys are a cost-effective way to collect countrywide data on the outreach of banks or other financial institutions, but do not answer more specific questions about demographic-specific usage. Demand-side surveys, while more costly, are designed to gather information about a nationally representative sample of the population. Usually, it is not possible to “splice” data together if it is not collected at uniform time periods and units of analysis (see Honohan, 2008). However, reports that use two sources of information in parallel to provide corroborative evidence can be very effective, as the following case shows.

#### Box 2: U.S. household’s access to and use of electronic banking, 1989-2007

Bell and Hogarth (2009) examined the changes over time in consumers’ access to, adoption of, and attitudes towards various forms of electronic banking in the U.S. They based their analysis on two sources: the Federal Reserve’s triennial Survey of Consumer Finances (SCF), as well as questions included by the Federal Reserve in the University of Michigan Survey Research Center’s Surveys of Consumers (SOC). Although the surveys have different methodologies, they were found to be sufficiently compatible to gain a general picture of consumer use and perceptions of electronic banking technologies. *Key to the analysis was that the data from the two surveys were not combined, per se, but rather analyzed separately and merely discussed together.* For example, as the two charts below show, the SCF was used to track the percentage of households that use online banking while the questions added to the SOC were able to provide a deeper look into the type of online banking activities households engaged in. Because both surveys were nationally representative and restricted to households with a bank account, the analyses of the data were compatible enough to complement each other and draw a more comprehensive picture of branchless banking in the US.

% Households that use online banking (SCF)



### 3.4 What variables are needed to answer policy questions?

The final, but often the most time-consuming and difficult, task is designing the questions within the survey, or what is known as the *survey instrument*. Whether the data will be used to help diagnose problems, to monitor or to evaluate impact of a policy, it is important to include the variables needed to assess what policy levers might be used.

In Table 4, we list some of the topics connected to financial inclusion and suggest which variables would be helpful in assessing them. Within the topic of financial inclusion, to measure financial access, one would need the number of accounts and geographic distribution of services, and to measure usage, one would need more detailed information about recent and past usage and accumulation patterns from individuals. To measure whether there is a problem with indebtedness, a common concern among regulators, one would need a number of individual or household level variables, such as debt service and stock as well as informal sources of debt, in combination with default data from institutions.

### 3 Determining data needs continued

**Table 4: Summary of policy levers and the required survey variables to collect**

Core topics	Demand-side variables	Supply-side variables
<b>Inclusion of the individual in the financial system</b>	<ul style="list-style-type: none"> <li>- Population in regions</li> <li>- Recent and past usage patterns</li> <li>- Wealth accumulation</li> </ul>	<ul style="list-style-type: none"> <li>- Number of accounts</li> <li>- Geographic distribution of banks, branches, ATMs, etc, into low-income or rural areas.</li> <li>- Eligibility for accounts</li> </ul>
<b>Segmentation of the market according to covariates</b>	<ul style="list-style-type: none"> <li>- Level of income</li> <li>- Gender</li> <li>- Geography</li> <li>- Number in household</li> <li>- Source of income</li> </ul>	<ul style="list-style-type: none"> <li>- Biographical information collected by the bank about account holders (gender, address, etc)</li> </ul>
<b>Usage of payment systems</b>	<ul style="list-style-type: none"> <li>- Bill Pay</li> <li>- Remittances</li> <li>- Salaries / wages</li> <li>- Mobile</li> <li>- Debit / credit / POS</li> </ul>	<ul style="list-style-type: none"> <li>- Account information from third-party vendors</li> <li>- Number of direct depositors</li> <li>- Number of credit card accounts, debit cards issued, etc.</li> </ul>
<b>Transaction costs of reaching and using financial service Providers</b>	<ul style="list-style-type: none"> <li>- Transportation</li> <li>- Time expenditures (waiting in line, travel, requirements)</li> <li>- Product features</li> <li>- Convenience</li> </ul>	<ul style="list-style-type: none"> <li>- Product features</li> </ul>
<b>Levels of indebtedness</b>	<ul style="list-style-type: none"> <li>- Debt service</li> <li>- Total debt stock</li> <li>- Assets</li> <li>- Duration of debt</li> <li>- Informal sources</li> </ul>	<ul style="list-style-type: none"> <li>- Summary of loan accounts</li> <li>- History of default of loan payments</li> </ul>

## 4 Practical implementation

In addition to determining the content, the decision about a research strategy will have to consider the cost implications of conducting surveys. The process of design, collection and analysis is intensive in terms of both financial and human resources and will range depending on the complexity of design. For modest data needs, high expenditures may be both unjustified as well as unnecessary. For key policy decisions affecting the lives of many, on the other hand, the cost of collecting more comprehensive data may be warranted.

### 4.1 Take an inventory of existing data collection efforts on both demand- and supply-side

The most cost effective way to measure financial access is with information that already exists. The public data already collected by government agents (e.g. credit bureaus, banking regulators, statistical bureaus etc.) may well provide adequate, low-cost information for regulators and policymakers. This also includes international, cross-country sources of information such as those provided by CGAP and, eventually, by the IMF and (potentially) the Gates Foundation.

Nevertheless it remains important to scrutinize the potential benefit of using existing data, particularly for monitoring and segmentation, as undue gaps in content and design can produce misguided outcomes which may override any financial savings. Two critical questions must therefore be asked:

- I **Can existing data satisfy the data needs as established above?** It is often useful at this point to bring all existing data together into one document. This document can be a helpful tool to initiate discussion of financial inclusion, to clarify any confusion over conflicting or incomparable data,<sup>27</sup> and to promote the need, should there be any, for more data collection.
- II **Was the data collected in a sufficiently robust manner?** Whether existing sources of data can fulfill the needs of the regulator is not only a question of content, but of design. The same framework for sampling and design discussed above can help determine the robustness and usefulness of the data produced by other sources.

### 4.2 Consider use of data by stakeholders

In addition to an inventory of existing data, a complementary stakeholder assessment of both data needs and the capacity to use data sets can be helpful in determining whether and to what extent a new data collection exercise should take place. This may best be done in a series of face-to-face interviews with parties also concerned with financial inclusion, such as other government departments or ministries, private financial institutions, statistical agencies and supporting agencies such as credit bureau. Data produced by new collection efforts should have significance to the types of decisions that stakeholders need to make on a regular basis and whether they use survey data to make those decisions. By sitting down with other stakeholders, policymakers may better define the breadth of questions that need to be answered by the data.

That said, it is often enticing for stakeholders to want to list every possible variable they can think of, a list which may not reflect their actual needs. However, if stakeholders are not accustomed to using a dataset on which to base decisions, it would be overkill to embark on the collection of a very large and complicated dataset and wiser to focus on a core set of variables that are easy to understand. Therefore, it is helpful to separate data requirements into two categories: *need-to-know* and *like-to-know*. "Need to know" data is that which is likely to be essential for most stakeholders to have. Public agencies may require this information to set relevant agendas, whereas in the private sector, lack of this data may cause information asymmetries which could lead to distinct market abnormalities. In other words, in order to set other stakeholders on the right path towards promoting financial inclusion, it is essential to ensure that this category of data is already or made available quickly. The "like to know" data category, on the other hand, will consist of broader and more diverse data requirements, and is likely to be prioritized based on the consistency of interest across the end-user group, as well as ease by which it can be accommodated into the survey design.

<sup>27</sup> This is particularly an issue when information has been collected using different methodologies with varying levels of robustness.

## 4 Practical implementation continued

### 4.3 Options for creating new data sets

If available sources prove insufficient, the effort necessary to develop new data sets can be justified. For supply-side data, it is typically the case that this data is already collected by the regulator, but it needs to be standardized across institutions, checked for robustness and brought together in an analytically helpful way. Although this is no small task, it can be accomplished without needing to create an entirely new data collection mechanism.

For demand-side data, which is typically not already collected by the regulator, the analysis of existing data that may already be collected via surveys by statistical agencies need to be assessed to determine whether these surveys can simply be enhanced or whether an entirely new survey needs to be developed which is purposefully designed to produce the desired data.

#### 4.3.1 Enhancement of existing surveys

Even if the current data sets are inadequate, it still may be possible to use certain element of existing surveys. This often takes place in two different ways:

- I **Enhancement of methodology** - as outlined above, data appropriate for measurement requires that the survey have various core attributes, including national representation and a comprehensive coverage of relevant demographic information. It may be possible to increase the relevance of already existing surveys by extending or changing the existing sample.
- II **Enhancement of content** - it may also be possible to add on financial access questions to an already existing survey. The risk here is that the survey length may become too long and cumbersome to administer effectively.<sup>28</sup>

Partnering with another institution and making either of these enhancements could have distinct benefits. Adding to a pre-existing survey provides a venue to share the design and implementation effort with another reputable institution who could become a key stakeholder. Partnering is also less costly than designing a survey from scratch, as data collection contracts have already been established and tested by the surveying institution. The resource and time savings potential in this option cannot be understated, as new survey design can be a lengthy effort.

Nevertheless, add-on components to existing surveys could limit the freedom of regulators or other authorities and stakeholders to meet precise objectives. Therefore, it may be wise to consider only those partners who share similar objectives and with a reputation amongst key industry players that would facilitate appropriate usage of the results.

#### **Box 3: World Bank access to finance module, Ghana<sup>29</sup>**

The Living Standards Measurement Study (LSMS) is a research project that was initiated in 1980 in response to a perceived need for policy relevant data that would allow policymakers to move beyond simply measuring social sector outcomes to understanding the determinants of them. The questionnaires (household, price and community) that are fielded in the LSMS surveys vary across countries reflecting the specific data needs and concerns of individual countries.

In 2005, an LSMS survey was conducted in Ghana, which was designed to provide information on multiple aspects of living conditions, e.g. consumption and use of public services. Taking advantage of the demographic information already collected by the LSMS, a different division of the World Bank commissioned a revisit to a randomly selected sub-sample of the households to gather information specifically on financial usage.<sup>30</sup>

The main rationale for adding a module onto an already existing survey, rather than constructing a completely new survey, was cost. The authors believed that, “surveys of individuals and households about their use of financial services hold the most promise for measuring outreach well, but their cost and the other logistical hurdles have made it difficult to develop...” (Cull and Scott (2009), p.33). Therefore, an add-on module to a respectable and compatible survey may provide a means to gain the necessary demand-side insight, without incurring such high costs.

<sup>28</sup> The recommended length for a survey is generally one that lasts one hour. Surveys that last longer may result in respondent fatigue and sloppy answers.

<sup>29</sup> For a complete discussion, see Cull and Scott (2009).

<sup>30</sup> For an example of the survey used, see the Guatemala Access to Finance module at: <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTPROGRAMS/EXTFINRES/0,,contentMDK:21668967-menuPK:4730256-pagePK:64168182-piPK:64168060-theSitePK:478060,00.html>.

## 4 Practical implementation continued

### 4.3.2 Implementing a new survey

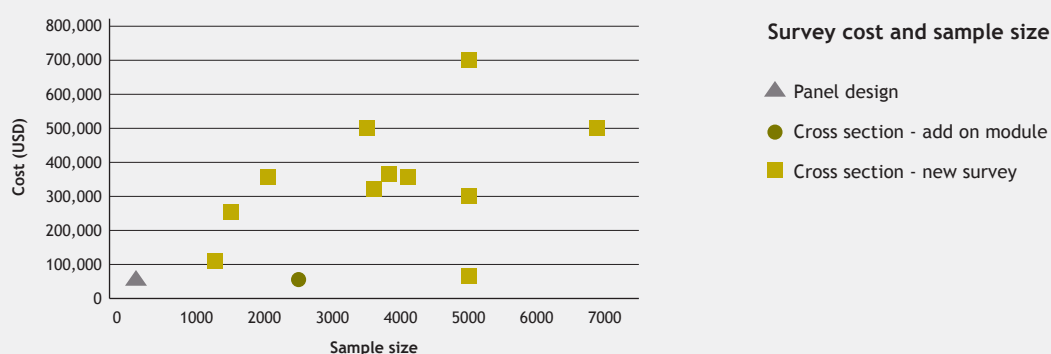
If national objectives cannot be met through adopting or adding on to existing surveys, there is a case for designing and implementing a new financial inclusion survey, though such a decision must result from careful consideration of the time involved to undertake such a process, as well as the relative costs and benefits of doing so.

**Timeframe for Design:** The preparation of a national, cross-sectional survey may typically require six to eleven months before results become available. That process would most likely be composed of the following steps: questionnaire design and agreement of content among stakeholders (2-4 months), field trials where questions are piloted with a sizeable portion of the sample to ensure appropriate responses are received (1-2 months), analysis of the pilot results and survey redesign as necessary (1-2 months), followed by preparation and final administration of the survey among the target population (2-3 months). The time to analyze survey results and cross-check against other data sources varies depending on the capacity available to mine the data. In future iterations, when survey design and question piloting are no longer necessary, the process of survey administration and analysis will shorten with built-in economies of scale and institutional memory.

**Cost / Benefits of new survey design:** The costs of developing a new survey are significant - both in terms of time (described above) and money. Unless there are particularly compelling benefits to developing and implementing a new measurement survey, or if there are no alternative survey options, it would be advisable to reserve resources for more robust and meaningful surveys designed to provide answers to specific and deeper questions about financial inclusion.

#### Box 4: Evaluating survey costs

While survey costs are difficult to predict because of the numerous variables involved, we have plotted actual survey costs for three different types of surveys as an indication. Comparing the surveys in this manner makes evident the trade-offs between survey design, especially the sample size and methodology, and cost. For example, a panel survey, which is arguably the most complex of the survey designs, despite its drastically smaller sample size, can cost about the same as a nationally-representative cross-sectional survey. Additionally, because of the highly-focused objectives that panels are usually designed to meet, they should be used sparingly in a country with limited resources and use for such in depth research. On the other hand, adding a module onto an already existing survey seems to be the least expensive option, even while accommodating a large sample size.



## 4.4 Increasing the use of survey data

To maximize the use of financial inclusion data, and in turn the investment made into collecting it, the resulting information should be disseminated in the most effective way possible for stakeholders. This requires not only an understanding of variables necessary to drive to key decisions, but also the format likely to facilitate use of the data. It should not be assumed that producing reports with headline results can be any less effective in stimulating action than providing users with a CD of large dataset. A simple,



## 4 Practical implementation continued

user-friendly brochure with the main results of the survey can be a very effective initial tool, particularly where public and private sector institutions are not used to making data-driven decisions. Institutions that are accustomed to making decisions differently may be overwhelmed by needing to interpret a raw dataset. In the case below, FinScope data influenced the growth of the sector, with the production of a brochure of data and several targeted presentations.

### Box 5: FinScope in Zambia - encouraged growth of financial sector<sup>31</sup>

In Zambia, a number of banks have responded positively to headline data provided by a FinScope survey. For example, Barclays used the data to justify the re-opening of a number of branches and service centres in non-urban areas. Also prompted by FinScope evidence, the bank created a new brand and business model specifically focused on the unbanked, although these plans have been put on hold because of the global financial crisis. In addition, ZANACO, Zambia National Commercial Bank, has launched a mobile banking venture similar to Wizzit. And, Dunavant, a cotton company, has created a mobile payment linkage for 150,000 of its out-growers. Both were stimulated in part by the financial inclusion debate that has been fuelled by the provision of FinScope headline data in Zambia.

## 4.5 Role of the regulator

Most policymakers recognize that, in addition to being a key user of financial access data, they have an important role to play in setting the direction for the development and implementation of a national data collection strategy.<sup>32</sup> The Bank of Thailand, for example, in their presentation at the 2009 *AFI Global Policy Forum* made a clear case that it is in the regulators' and policymakers' interest to monitor policy progress over time and express demand for data that allows this to happen.

The experience of data collection thus far suggests that this core leadership by policymakers is well-justified. As Figure 5 shows, both Zambian and Kenyan regulators provided and received varying degrees of design and implementation support for their national financial surveys, while still retaining access to the resulting data for policy purposes, a situation quite different to the collection of financial access data in Indonesia. The high level of involvement by the Central Bank of Kenya in the FinAccess survey emboldened the policymakers to use the data from the FinAccess survey to make a key decision about how heavily to regulate the relatively new mobile payment system offered by M-Pesa.<sup>33</sup> Similarly, encouraging other stakeholders to make an investment in the study (financial or otherwise) may promote wider usage. We found a deeper usage of South African FinScope data, for example, among private sector players which had gained direct access to the data base through a paid syndicate membership.<sup>34</sup>

Figure 5: Engagement of regulators

	Regulators				
	Zambia	Kenya	US Fed	Indonesia	
Design	●	●	●	○	<ul style="list-style-type: none"> <li>● Fully responsible</li> <li>● Partially responsible</li> <li>○ No responsibility</li> </ul>
Fund	●	○	●	○	
Analyze	○	●	●	○	
Disseminate	●	●	●	○	
Publicly available data					

<sup>31</sup> Bankable Frontier Associates (2009b).

<sup>32</sup> Honohan (2005) states that "ultimately, national authorities will become the main collectors of such data" (p. 2).

<sup>33</sup> More specifically, "the financial access issues highlighted by FinAccess Kenya played an important role in confirming the Central Bank's decision to allow M-Pesa to proceed and then not to intervene too heavily, anticipating that M-Pesa would have a substantial and positive effect beyond the scale and scope of the banking sector." (Bankable Frontier Associates (2009b), p. 21).

<sup>34</sup> Bankable Frontier Associates (2009b), p. 21.



## 5 Conclusion

Relevant data provides critical input for understanding and ultimately informing policies and approaches which may improve levels of financial inclusion. Regulators, in particular, play a unique role in the goal of increasing access to financial services, in that they must evaluate and balance multiple interests and devise evidence-based policies that ultimately incentivize the private sector yet protect the customer. A well-guided strategy to collect relevant and robust financial access data can increase the impact of this complex task.

This strategy starts with the definition of financial inclusion, which can be defined through a number of lenses. Each lens presents layers of complexity in measurement, however, which influences the level of resources needed to collect data to perform that measurement. Measuring financial inclusion with a definition confined to access can generally be done using supply-side data, which is usually on hand through existing reporting to regulatory bodies. However, measuring financial inclusion by welfare requires a more sophisticated household survey which is repeated over time. It is unlikely that this type of data is already available and therefore will require additional and significant investment.

With a definition of financial inclusion in hand, policymakers still need to go through a systematic decision-making process to evaluate their various data needs. Data aids in both the diagnosis of where policymaking should focus as well as the monitoring following policymaking. The contextual environment in each country—the economic backdrop, the existing state of financial service provision, the geographic landscape—is different and therefore merits a careful analysis of how data can support policymaking in each environment.

The practical implementation of data collection requires an assessment of whether existing data sets can be leveraged to meet the data needs of both policymakers and other stakeholders. Doing so will ensure that resources are used most efficiently with the maximum impact. If the regulator decides to support or commission a new national survey, it is imperative that the details of the survey - both in terms of the methodology as well as the content of the questionnaires - be understood and optimized not only to maximize the impact of the data, but so also to ensure that faulty conclusions are limited.

With that understanding, it is possible to develop an effective research strategy that not only aims to bring attention to the state of financial inclusion, but also to highlight particularly underserved geographic areas, demographic segments and product niches.

## References

- Bankable Frontier Associates. 2009a.** "Global Financial Access Snapshots: Exploring Feasibility and Potential Risks." *Report commissioned by the Bill & Melinda Gates Foundation.*
- Bankable Frontier Associates. 2009b.** "FinScope: A Review of Impact and Strategic Options." *Report undertaken for FinMark Trust.* <http://www.finmark.org.za/>.
- Beck, Thorsten and Asli Demirgüç-Kunt. 2008.** "Access to Finance: An Unfinished Agenda." *The World Bank Economic Review* 22(3): 383-396.
- Beck, Thorsten, Asli Demirgüç-Kunt and Ross Levine. 2007.** "Finance, Inequality and the Poor: Cross-Country Evidence." *Journal of Economic Growth* 12(1):27-49.
- Beck, Thorsten, Asli Demirgüç-Kunt and Maria Soledad Martinez Peria. 2007.** "Reaching Out: Access to and Use of Banking Services across Countries." *Journal of Financial Economics* 85(1): 234-66.
- Beck, Thorsten, Ross Levine and Alex Levkov. 2007.** "Big Bad Banks? The Impact of U.S. Branch Deregulation on Income Distribution." Policy Research Working Paper 4330. World Bank, Washington D.C.
- Bell, Catherine J. and Jeanne M. Hogarth. 2009.** "U.S. Households' Access to and Use of Electronic Banking, 1989-2007." *Federal Reserve Bulletin*, July, A99-A121.
- Bruhn, Miriam and Inessa Love. 2009.** "The Economic Impact of Banking the Unbanked: Evidence from Mexico." World Bank. *Policy Research Working Paper 4981.*
- Burgess, Robin and Rohini Pande. 2005.** "Do Rural Banks Matter? Evidence from the Indian Social Banking Experiment." *American Economic Review* 95(3): 780-795.
- Christen, Robert Peck, Richard Rosenberg and Veena Jayadeva. 2004.** "Financial Institutions with a Double Bottom Line: Implications for the Future of Microfinance." Washington DC: CGAP, Occasional Paper 8. [http://www.cgap.org/docs/OccasionalPaper\\_8.pdf](http://www.cgap.org/docs/OccasionalPaper_8.pdf).
- Cull, Robert and Kinnon Scott. 2009.** "Measuring Household Usage of Financial Services: Does It Matter How or Whom You Ask?" World Bank Development Research Group working paper.
- South African Financial Sector Charter. 2004.** <http://www.fscharter.co.za>.
- Giné, Xavier and Robert Townsend. 2004.** "Evaluation of Financial Liberalization: A General Equilibrium Model with Constrained Occupation Choice." *Journal of Development Economics* 74(2): 269-307.
- Honohan, Patrick. 2005.** "Measuring Microfinance Access: Building on Existing Cross-Country Data." Policy Research Working Paper No. 3606. Washington D.C.: The World Bank.
- Honohan, Patrick. 2008.** "Cross-Country Variation in Household Access to Financial Services." *Journal of Banking and Finance* 32(11): 2493-2500.
- Kempson, Elaine, Claire Whyley, John Caskey and Sharon Collard. 2000.** "In or out? Financial Exclusion: A Literature and Research Review." London: Financial Services Authority. <http://www.fsa.gov.uk/pubs/consumer-research/crpr03.pdf>.

## References continued

**King, Robert G. and Ross Levine. 1993.** "Finance and Growth: Schumpeter Might Be Right." *The Quarterly Journal of Economics*: 108(3): 717-737.

**Kumar, Anjali, Thorsten Beck, Cristine Campos and Soumya Chattopadhyay. 2005.** "Assessing Financial Access in Brazil." Working Paper No. 50. Washington D.C.: The World Bank.

**UNCDF. Vision and Mission Statement for Building Inclusive Financial Sectors.** <http://www.uncdf.org/english/microfinance/index.php>

**World Bank. 2008.** *Banking the Poor: Measuring Banking Access in 54 Economies*. Washington D.C.: World Bank.

## Additional resources

### Financial diaries

<http://www.financialdiaries.com>

### FinScope

<http://www.finscope.co.za/index.asp>

### MECOVI

[http://www.iadb.org/sds/POV/site\\_19\\_e.htm](http://www.iadb.org/sds/POV/site_19_e.htm)

### Survey of consumer finances

<http://www.federalreserve.gov/pubs/oss/oss2/scfindex.html>

### World Bank access to finance survey

<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTPROGRAMS/EXTFINRES/0,,contentMDK:21668967~menuPK:4730256~pagePK:64168182~piPK:64168060~theSitePK:478060,00.html>

### World Bank living standards measurement study

<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTLSMS/0,,contentMDK:21610833~pagePK:64168427~piPK:64168435~theSitePK:3358997,00.html>







## About AFI

The Alliance for Financial Inclusion (AFI) is a global network of central banks and other financial inclusion policymaking bodies in developing countries. AFI provides its members with the tools and resources to share, develop and implement their knowledge of financial inclusion policies. We connect policymakers through online and face-to-face channels, supported by grants and links to strategic partners, so that policymakers can share their insights and implement the most appropriate financial inclusion policies for their countries' individual circumstances.

## Alliance for Financial Inclusion

AFI, 399 Interchange Building, 24th floor, Sukhumvit Road, Klongtoey - Nua, Wattana, Bangkok 10110, Thailand  
t +66 (0)2 401 9370 f +66 (0)2 402 1122 e [info@afi-global.org](mailto:info@afi-global.org) [www.afi-global.org](http://www.afi-global.org)

AFI is funded by the Bill & Melinda Gates Foundation and administered by GTZ (German Technical Cooperation).