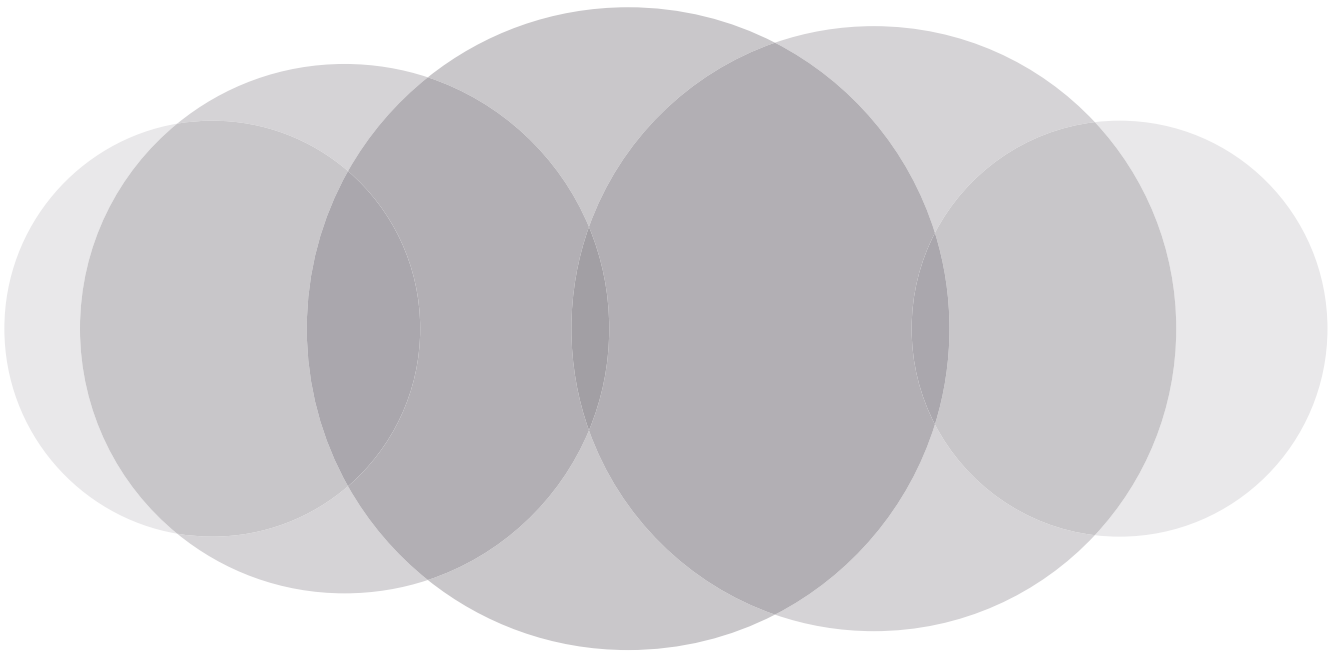Case study

Measuring financial inclusion in Mexico
CNBV's approach to obtaining better data for decision-makers

About this case study

This case captures the actual experiences and challenges faced by AFI Policy Champion Raul Hernandez-Coss and his team at the Access to Finance Unit, CNBV Mexico. AFI Policy Champions are outstanding policymakers that have made a substantial policy contribution to increasing access to financial services for the unbanked population in their countries. Through their case studies AFI policy champions tell their stories in their own voice so that other developing country policymakers may benefit from their experience and innovations.

At a glance

CNBV's approach to obtaining better data for decision-makers

In 2008, the Mexican banking and securities regulator, CNBV (Comisión Nacional Bancaria y de Valores), modified its strategic plan to embrace the objective of financial inclusion. Its new Access to Finance Unit focused initially on defining and measuring financial inclusion in a practical way. Then, following a preliminary gap analysis, the Unit analyzed existing data from regulated financial institutions and published two major reports on the state of financial inclusion in Mexico. These reports, published in 2010, have been widely read and cited in Mexico, and have already helped to clarify the strategies of state-owned banks and inform the distribution decisions of some private sector groups. The CNBV is still in a relatively early stage of implementing comprehensive and accurate measurements of financial inclusion, but the results to date have been promising.

This case study invites readers to consider the following:

- Does it make sense to prioritize the collection of financial inclusion data in the early stages of promoting financial inclusion?

- What is the role of a financial regulator in measuring financial inclusion?

- To what extent can existing data be used?

- What are the best incentives for financial institutions to report accurate financial inclusion data?

Timeline of events

2007	
July	Guillermo Babatz appointed President of CNBV
2008	
August	CNBV adopts broader strategic plan. Hernandez-Coss hired as Director-General of CNBV's Access Unit.
2009	
April	1st Project: Mapping of key players completed
May	Hernandez-Coss hires team for CNBV's Access Unit
June	CNBV joins AFI Steering Committee
September	2nd Project: Gap analysis completed
December	3rd Project: Data gathered and indicators defined
2010	
March	Financial Inclusion Report #1 published
June	CNBV becomes founding member of AFI Working Group on financial inclusion data
September	Financial Inclusion Report #2 published

Introduction

Raul Hernandez-Coss, Director General of the CNBV's Access to Finance Unit, is about to attend a meeting of fellow regulators interested in measuring financial inclusion. As busy as his Unit was back at home, he had agreed to share CNBV's approach to measuring financial inclusion among fellow financial regulators at a meeting of the Financial Inclusion Data Working Group, established to support and promote good measurement practices among member regulators of the Alliance for Financial Inclusion (AFI).

Contemplating the developments over the three years since CNBV had adopted financial inclusion as an objective, Hernandez-Coss reflected that progress had exceeded his expectations. The Access to Finance Unit had developed baseline indicators, published two financial inclusion reports that garnered substantial attention from the media, and had begun to institutionalize a culture of more accurate data reporting by financial institutions. There was some evidence that CNBV's access databases were starting to influence policy and business solutions that could reach not only "those who are marginalized from the financial sector, but also those who are already part of the financial sector and still do not know how to take advantage of the potential that services and products offer to them."[i]

Financial inclusion was now a more tangible development goal for financial policymakers in Mexico. Whereas previous policies related to financial access had often been formulated in the absence of much data to support them, CNBV now had better quality data in its policymaking toolkit to support decision-making.

From its early focus on gathering available data, the Access to Finance Unit was now looking to make greater use of the data: "Since its inception, 75% of the Access Unit's job has been dedicated to measurement. Now that our supply-side indicators are established, we can move more deeply into usage of financial services and into promoting business models that work best to bring people into the financial system."[ii] These initial access and usage indicators confirmed that Mexico ranked below its peers. But financial inclusion was seen as a deep-rooted, systemic problem which would also require a range of sustained policy approaches, supported by a wider and deeper set of data to monitor progress over time.

Creating the Access to Finance Unit

CNBV's new focus on financial inclusion began with Guillermo Babatz's appointment as CNBV President in 2007. Among his first acts, Babatz conducted a strategic review of CNBV's institutional plan. The result was a decision by the Mexican government to expand CNBV's mission to promote "a sound and inclusive banking system"[iii] as an essential component of a sustainable financial sector and economy. The regulator's role would now expand beyond performing traditional regulatory and supervisory tasks to promoting access to financial services.

A new organizational structure reflected the renewed plan. While one division of CNBV would focus primarily on supervision, the other would concentrate on policy and regulation. Under the Vice-President of this division, CNBV set up a small Access to Finance Unit dedicated solely to addressing access to finance in Mexico (see Exhibit 1).[1] The Unit had three technical staff and two administrative staff positions, led by a Director General.[2] Hernandez-Coss was hired to fill this post and started work in August 2008.

In terms of staff and budget, the Access to Finance Unit comprised a small fraction, 0.069 percent, of CNBV's total resources. However, the fact that the Unit had its own budget was a big step: "It enabled us to devote all our energy toward policy goals and the new mission including access which, without such clarity, could have been compromised amidst future opposition."[iv] Because financial inclusion was now in the core plan of CNBV, other line functions had a role to play as well: by one internal estimate, about 10% of CNBV's total resources were spent on inclusion-related issues in 2010.

Why measure inclusion?

Prior to the Access Unit beginning its work, financial services were largely unmeasured in Mexico. "No one knew if the population was receiving enough supply. The breakdown of financial services had not been carefully evaluated."[v] Various government development banks had performed surveys of their clients, even target

Exhibit 1: CNBV organizational structure
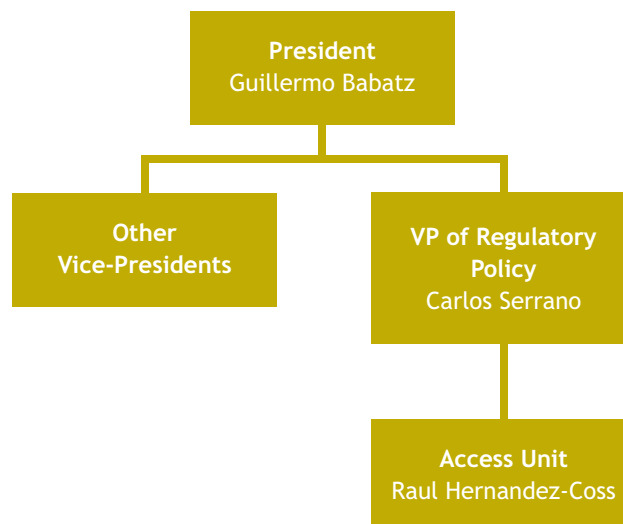
populations like rural residents, but information about inclusion was dated, fragmented, and of variable quality. Consequently, it was hard to create focused, evidence-based policy measures when the dimensions of the problem were uncertain. It was also difficult to measure progress over time without clear and credible benchmarks in place, which CNBV needed to make a strong case for more public resources to support financial inclusion. As an institution that valued an evidence-based approach to decision-making, CNBV quickly realized that the absence of data was both a potential threat and an opportunity: a threat because the vagueness of the financial inclusion debate would make it difficult to adopt meaningful measures to implement its new mandate; an opportunity because CNBV could leverage its role as a trusted collector of confidential data from regulated financial institutions as well as its competence in collating and analyzing this data. For these reasons, the Unit's first priority was to improve the measurement of the state of financial inclusion.

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[1] Other countries with official units dedicated solely to promoting access to finance include Brazil, the Philippines, South Africa, the United Kingdom, and the United States. Some are housed within the Central Bank, others within a supervisory body (like Mexico's CNBV), and still others within the Ministry of Finance.

[2] CNBV's total staff is 1,252.

Prioritizing data needs

But where to start? After meeting stakeholders across the financial sector, the Access Unit, with AFI support, conducted a formal gap analysis to determine what data were missing from publicly available surveys and reports. Existing data were divided into categories (Exhibit 2) and compared to CNBV's needs, differentiating between basic requirements for measuring access and usage of financial services, international benchmarks, and a longer wish list of potentially useful data. The analysis involved several important steps.

The first step was to define the term financial inclusion. For CNBV, this term had multiple dimensions-not simply access dimension which is conventionally measured in terms of geographic proximity to financial service infrastructure like branches, ATMs, and point of sale devices, but other dimensions, such as how financial services are used, the barriers to adopting and using these services, and understanding the impact of financial services on households. Each successive dimension introduced another layer of complexity in terms of measurement.

Second, CNBV realized that more detail would make the data more useful to financial providers. As a supervisory body, the CNBV typically collected and analyzed data by financial institution because of its supervisory focus, but the Access Unit needed a geographic view of the country's financial services, "zoomed in" to a granular level. As Hernandez-Coss points out, "National indicators can be misleading. Data should be presented at a state or, ideally, municipality level."[3, vi] Hernandez-Coss envisions one day being able to map all financial infrastructure by GPS coordinates, and then overlaying population and demographic data to reveal gaps in the distribution of financial services.

Exhibit 2: Data categories in gap analysis

- Proximity to financial infrastructure
  Branches, ATMs, POS devices

- Usage of financial services
  Usage patterns of savings, credit, payments, insurance, pensions, securities

- Product features and quality
  Formality and overall transaction costs

- Motivations for usage
  Reasons for usage and perceived impact

- Household capacity
  Ability to pay based on income, expenditures, and assets

- Financial literacy
  Knowledge, perceptions, risk preference

Third, it became clear that CNBV would have to combine supply-side data with demand-side data if they were to construct a complete view of financial inclusion in Mexico. However, data on demand for financial services were limited. Existing data on household usage of financial services came from five different surveys, conducted by Mexico's national statistics institute, INEGI, the Ministry of Finance, academicians, and banks. Each of the surveys varied in their methodology, geographic scope, public accessibility, and relevance to measuring broad financial inclusion. Since these data sets were impossible to compare and aggregate, CNBV concluded that it would have to initiate a national demand-side survey dedicated solely to financial inclusion. However, lacking the expertise to set up and manage a national survey, and questioning the value of developing this expertise itself, CNBV looked to INEGI as a potential partner because it had already collected a range of household data relevant to financial inclusion in national surveys.

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[3]   Mexico is made up of 2,456 municipalities.

Neither INEGI nor CNBV had the budget for a big survey. A nationally representative survey in Mexico would involve interviewing at least 7,000 respondents and expenditures could easily exceed US$1 million. The same funding barrier had been encountered in various African and Asian countries, where donors have ultimately covered the cost of a national survey. In some cases, a credible independent party has conducted a national survey with the cost shared across financial institutions that benefit from the data.[4] This approach was not considered immediately viable in Mexico, so Hernandez-Coss began raising funds from other parts of the government and international donors with an interest in supporting financial services regulators in this area.

The Access Unit could not afford to wait the three years it would take to get the results of a new national survey—by then, the data would be irrelevant to current policy discussions. Instead, the Unit opted to carefully assess the data that CNBV had already collected from banks, and determine, as a starting point, whether to ask banks to report additional data. As a regulator, CNBV had the power to require regulated institutions to report data, but CNBV was wary to impose these costs on the financial sector without good cause. However, after the Access Unit had examined the data more closely, it realized that banks had already been reporting valuable granular-level data to CNBV for several years: number of branches per municipality. CNBV had never verified nor made use of the data for financial inclusion purposes, and it was thought to contain inaccuracies, but it provided a useful starting point for the study. The Unit now had enough supply-side data to get started and did not have to add to the reporting requirements of banks.

CNBV spent 2009 defining supply-side indicators and building awareness and consensus among a wide range of stakeholders—government, academia, and the international community. CNBV also engaged with private sector stakeholders such as the Banking Association, which ultimately bolstered private-sector interest in the outcomes of data collection and measurement. CNBV's role as a regulator proved extremely useful in forging relationships with stakeholders—because it had already handled sensitive data from banks, it had enough credibility within the banking sector to play a data collection and monitoring role. Industry bodies like the Banking Association could have also played that role, but CNBV's independence from any direct financial sector interests made its reporting more credible to outside stakeholders.

As the Access Unit embarked on a process of improving the measurement of financial inclusion, it had to take its resource constraints into account. The Unit was fortunate to hire several individuals trained in data analysis, which helped to develop a core competency not only in collating, but also in analyzing the data. Still, the Access Unit recognized its limitations: that there was little advantage in getting deeply involved in survey design and management and that there was an interest in bringing INEGI on board should be pursued as a partner at an early stage.

In the first phase, the Access Unit defined its strategy through the gap analysis study. Its immediate priority was to focus on analyzing existing supply-side data, while in the medium-term establishing the process and resources for collecting comprehensive demand-side data.

[4] For example, South Africa.

Using the data

Financial Inclusion Reports

The Access Unit dug deep into the available data, largely from banks, with the aim of extracting meaningful supply-side indicators of financial inclusion. "Defining the indicators was a time-consuming but critical step," says Hernandez-Coss.[vii] It began with the IMF and World Bank cross-country indicator sets (Exhibit 3),[viii] which included conventional measures of access, such as bank branches or ATMs per 100,000 people. CNBV's indicator set included these measures for international comparability, but the Unit sought to go beyond these indicators. They would first collect indicators at the state and municipality level and then add to the number and breadth of indicators over time.

After working through the mountain of available data, the Access Unit decided to make its analysis available to the public with a report on indicators of financial inclusion. The report, aimed at sharpening public focus on the issue of financial inclusion, would be targeted at financial sector decision-makers, both in government institutions and private sector banks. With the report, the CNBV sought to catalyze a new type and level of debate around financial inclusion-one based on data rather than anecdote and hearsay.

The first CNBV Financial Inclusion Report was ready for publication in March 2010. It highlighted and discussed the most relevant financial inclusion indicators that could be extracted from the existing data. The report was accompanied by the release of an easily searchable geographic database that would allow financial institutions to determine for themselves how many bank branches or ATMs were already available in a municipality. Whereas some of this data had already been made publicly available, the report aggregated the data for the first time and the database made it searchable by financial inclusion themes.

Exhibit 3: International access indicators

Both the IMF and World Bank have defined financial inclusion indicators that have influenced CNBV's efforts in Mexico.

The IMF's Access to Finance Project has produced cross-country data on penetration and usage of financial services since 2004.

Since 2005, the World Bank has collected financial access data across 140 countries. CGAP became a partner to publish these indicators on savings, credit, and payment in an annual *Financial Access Report*, first published in 2009.

A sampling of IMF and World Bank/CGAP indicators:

Access
- Branches or ATMs per 1,000 km^2
- Branches or ATMs per 100,000 adults

Usage
- Borrowers/depositors per 1,000 adults
- Outstanding loans or deposits as a percentage of GDP

CNBV's core supply-side indicators (at national, regional and municipal levels):

1. **Total access points:** the sum of the total of branches, ATMs and agents
2. **Demographic indicator:** number of access points per 10,000 adults
3. **Municipalities covered:** percentage of municipalities with at least one access point
4. **Adults covered:** percentage of adults living in municipalities that are covered compared to total adults

The indicator that attracted the most public attention was the percentage of municipalities without any bank branches: 67%. This high proportion raised the question of how to address this obvious form of financial exclusion. When the second Financial Inclusion Report was published six months later, data was added from the savings and loan associations (Popular Savings and Credit sector), which ended up lowering the overall geographic exclusion level to 57%. However, the reality remained that over one-half of all municipalities in Mexico had no banks or branches. Measurement, even in this simple form, proved effective in focusing public attention on financial inclusion.

In its first report, the Access Unit pointed additional lenses into the data, such as classifying municipalities into six categories by population size rather than a conventional urban-rural dichotomy. Dividing municipalities into these categories[5] gave policymakers more useful information, since each type required a unique policy solution. The new classification demonstrated that most municipalities with financial services were urban and that Mexico's SOFOLES and SOFOMES (non-bank financial institutions) were primarily operating in urban areas, even though, in many cases, that was not in the nature of their original mission to increase credit.

Exhibit 4: Example of analysis in second report: Municipalities with branches[ix]

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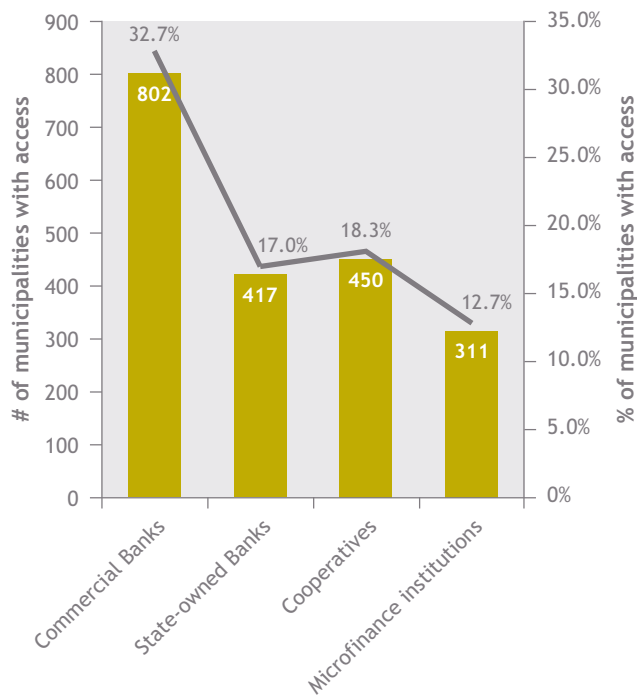
[5] Municipalities were broken into six categories: *Rural* (<5,000 residents), *In Transition* (5,001-15,000 residents), *Semi-Urban* (15,001-50,000 residents), *Urban* (50,001-300,000 residents), *Semi-Metropolitan* (300,001-1,000,000 residents), and *Metropolitan* (>1,000,000 residents).

The outcomes of publication

The first Financial Inclusion Report caused a stir in the Mexican media. Part of the controversy was that CNBV decided to publish the report despite knowing that some of the data reported by banks were clearly wrong. In the report, CNBV simply presented aggregations of the data, making no guarantees of its accuracy, and added commentary of its own. CNBV's approach was to call attention to data and coverage deficiencies.

The Access Unit believed that the false data were not the result of willful errors by banks, but the result of relaxed attitudes to reporting data that had never been double-checked or rigorously analyzed. For example, one bank reported all its branches in one state at the point of data collection (the regional office), but not their actual locations.[6] Other data showed that some state capitals, such as Durango, had only three ATM machines. This was clearly not true, as observers were quick to point out. Other data suggested that some rural municipalities with fewer than 5,000 residents had many bank branches. Figures like these were simply not credible. While the media called attention to underserved municipalities, the Association of Mexican Banks[7] expressed concerns about the credibility of the numbers.

CNBV had taken a calculated risk in publishing the first report so soon. They could have chosen to fine institutions that were obviously reporting inaccurate or incomplete data, or they could have worked with the banks to encourage them to produce better quality data. Instead, the media pressured banks to explain their poor outreach following the publication of the report, and as a result, banks quickly fixed their own reporting errors. In the process, they recognized that the indicators were useful for their own strategic purposes. For example, certain private banks began to use the CNBV database of financial service points as a tool for deciding how to deploy banking agents under new CNBV regulations.[x]

By creating a clear focal point for debate about financial inclusion, the reports also accelerated interagency collaboration. The statistics agency, INEGI, called financial inclusion "a topic of national interest"[xi] and, prompted by the level of public interest, agreed to undertake CNBV's proposed national demand-side survey. The survey, which will move ahead in 2011, will study household motivations for using financial services as well as barriers to greater usage. INEGI's willingness to participate also helped CNBV to make the case to external funders to fund the survey.

Other regulators soon got on board to support the measurement agenda. CONDUSEF, the Mexican consumer protection agency for the financial sector, agreed to hold focus groups on financial literacy in urban and rural areas, in collaboration with CNBV. By examining financial decision-making processes in more depth, these groups could generate qualitative data that will help to interpret and qualify the quantitative data from the national survey. The Mexican Central Bank joined forces with the Inter-American Development Bank to sponsor a survey of financial inclusion among small businesses. Finally, Bansefi, the major national savings development bank, used CNBV's database to plan the installation of a large number of point-of-sale devices in Diconsa stores, its partner network, to manage payouts of government cash transfers. The indicators also helped Bansefi to allocate government subsidies for financial literacy training across its network based on need.

> Since its inception,
> 75% of the Access Unit's job
> has been dedicated to measurement.
>
> Raul Hernandez-Coss (CNBV)

Inside CNBV, the first report had several consequences. First, it raised the profile of the new Access Unit. Second, the inaccuracies found in the data reported by banks encouraged greater scrutiny and oversight of reporting by other parts of CNBV by uncovering inaccuracies. For example, the report reflected only a much lower number of branches in certain states than was known to be the case.[xii]

The new geographic database also helped CNBV to consider targeted policy measures to improve access. For example, as a result of the data, CNBV considered lowering requirements for banking agents operating in underserved areas of the country.[xiii] The findings also helped to make the case to the Central Bank to issue new regulations providing for special mobile accounts-ones with relaxed KYC requirements that could be opened by banking agents.

In general, the first two Financial Inclusion Reports helped to consolidate previously isolated efforts to measure financial inclusion and signaled a reliance on evidence-based methodology for financial inclusion policy. The reports have started to create a common framework of understanding about the meaning of financial inclusion and how it can be measured over time.

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[6] Bank branches, ATMs, and POS devices are not always assigned to a geographic management structure, so some banks found it difficult to track and collate locational data. For example, some assign ATMs or POS devices to nearby hub branches or to locations where customers receive their banking statements, making precise measurements by municipality difficult.

[7] The industry association of Mexican banks, represented at the board level by senior bankers from major commercial banks.

The road ahead

By late 2010, two years after the formation of the Access Unit, Mexico was well on its way to improved measurement of financial inclusion, better policymaking by government, and better decision-making by financial services providers. Building on the momentum created in the first phase, the Access Unit has envisioned several ways to deepen and broaden its efforts.

> **Indicators alone won't resolve a country's endemic issues with data, but they provide a foundation for future development.**
>
> Raul Hernandez-Coss (CNBV)

First, the Unit intends to expand data collection from the municipality level to the local level[8] and, eventually, to obtain actual GPS coordinates for all financial service points. With this level of detail, CNBV can rally local governments and financial service providers to fill in the gaps, using precise policy incentives where necessary.

Next, the Access Unit also plans to expand its indicator set from access and usage to include measures of quality. New indicators would cover components such as consumer protection, financial literacy, and barriers to financial inclusion. The first comprehensive household survey undertaken by INEGI in 2011 will add valuable depth to the profile of inclusion from the demand-side, enabling a client household focus which supply side analysis cannot give. To the extent that CNBV's financial inclusion reports could be combined and overlaid with new demand-side data from complementary government surveys, Bernardo Gonzalez, COO of state retail bank Bansefi, sees "the creation of the ultimate public policy tool."[xiv]

Of course, the wide range of data users has produced a wide range of views about measurement priorities. A number of banks are looking for better micro-level data to inform their decisions about the deployment of new distribution channels. They want to view data via a graphic interface that can be customized by any variable of interest. Other organizations hope that CNBV will add historical interest rates to monitor the effect of rate changes on the propensity of financial institutions to serve underbanked customers.[xv] Such data could increase both transparency and competitiveness across the financial sector.

Even with the publicity generated from the first two reports, the Access Unit believes it can do more to promote readership of its reports and increase the number of people using its data. The first reports raised awareness of why financial inclusion matters and the Unit plans to continue to produce biannual reports in an effort to keep the data fresh and the issue in the public mind.

CNBV's primary goal is to promote greater financial inclusion in Mexico over time. To achieve this, it will need to show, in an ongoing way, how the data can be used to inform policy decisions and influence the business models of providers. The road to full financial inclusion is a long one, but the Access to Finance team is gradually building a culture inside CNBV and among its stakeholders that values better measurement to guide the journey. As Hernandez-Coss says, "Indicators alone won't resolve a country's endemic issues with data, but they provide a foundation for future development."[xvi]

Endnotes

[i] Financial Inclusion Report #2, CNBV, September 2010.

[ii] Interview with Raul-Hernandez-Coss (CNBV), Sep 2010.

[iii] Second interview with Raul-Hernandez-Coss, CNBV, Oct 2010.

[iv] Interview with Raul Hernandez-Coss, CNBV, September 2010.

[v] Interview with Jorge Lara (Banco de Mexico), September 2010.

[vi] Interview with Raul Hernandez-Coss, CNBV, September 2010.

[vii] Interview with Raul Hernandez-Coss, CNBV, September 2010.

[viii] IMF Access to Finance Project: http://fas.imf.org/World Bank/CGAP Financial Access Reports: http://www.cgap.org/p/site/c/financialindicators/

[ix] CNBV Presentation of Financial Inclusion Report to World Bank, September 2010.

[x] Interview with Carlos Lopez-Moctezuma, CNBV, September 2010.

[xi] Interview with Rios Mingramm (INEGI), September 2010.

[xii] Interview with Bernardo Gonzalez (Bansefi), October 2010.

[xiii] Interview with Carlos Lopez-Moctezuma, CNBV, September 2010.

[xiv] Interview with Bernardo Gonzalez (Bansefi), October 2010.

[xv] Interview with Jorge Lara (Banco de Mexico), September 2010.

[xvi] Interview with Raul Hernandez-Coss, CNBV, September 2010.

[8] This level is similar to a neighborhood. The national statistics institute (INEGI) counts 292,000 localities in Mexico.

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.