

# AN INDEX TO MEASURE THE PROGRESS OF FINANCIAL INCLUSION

THIS GUIDELINE NOTE ON AFI'S FINANCIAL INCLUSION INDEX WAS DEVELOPED BY THE FINANCIAL INCLUSION DATA WORKING GROUP (FIDWG) FOR AFI MEMBERS TO TRACK THE PROGRESS OF FINANCIAL INCLUSION IN THEIR COUNTRIES.

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## CONTEXT

In September 2013, the members of the Alliance for Financial Inclusion (AFI) agreed to strengthen the effectiveness of their Maya Declaration Commitments by defining measurable national goals and tracking their progress using AFI's Core Set of Financial Inclusion Indicators, developed by the Financial Inclusion Data Working Group (FIDWG).

This guideline note on the AFI Financial Inclusion Index was prepared in line with this agreement – the Sasana Accord – which commits AFI members to using evidence and data to measure the progress and impact of their financial inclusion policies and strategies.

## PURPOSE

The Financial Inclusion Index is a tool for monitoring the progress of financial inclusion initiatives and assessing the state of financial inclusion. The Index leverages the AFI Core Set of Financial Inclusion Indicators for access and usage formulated by the FIDWG in 2011. The Financial Inclusion Index reduces the Core Set to a single comprehensive number to quantify and capture the state of financial inclusion in a country at a given point in time.

The Index also builds on the experience of Bank Negara Malaysia (BNM), which developed the Index of Financial Inclusion (IFI) to measure the effectiveness of formal financial institutions in delivering financial products and services to customers all over the country. The BNM's nationwide IFI provides a comprehensive view of the development of an inclusive financial system, while advancing the financial inclusion initiatives of national policymakers and enhancing the transformational efforts of the government.

It is important to understand, however, that the Index is a diagnostic tool and should not currently be used to rank and compare country performances. To make the Index an effective comparison tool, policymakers and data collectors should agree to a common set of indicators and targets with a standard reporting structure.

## METHODOLOGY

The methodology for the Financial Inclusion Index is based on well-known development indexes such as the UNDP Human Development Index, the Multi-Dimensional Poverty Index and the Gender Inequality Index. Like any other development index, the Financial Inclusion Index could be used as a communication tool to raise awareness among policymakers and the general public of the level of financial inclusion in a country, the achievements or outcomes of reforms related to financial inclusion and, more broadly, the development of the financial sector over time.

The Index was calculated through the following steps:

1. Setting the target values of the indicators
2. Setting the weights and determining the indices of each indicator. The weights reflect the importance of the indicators at this point in time, but the dimensions were weighted equally.
3. Aggregating the indices of the dimensions into a single index.

For ease of reporting, the Index will be embedded within AFI's online data platform, the Online Progress Dashboard. The Index will be calculated automatically for AFI members that regularly (at least on an annual basis) report the Core Set of Indicators on the Online Progress Dashboard.

## THE FINANCIAL INCLUSION INDEX IN PRACTICE: RESULTS FROM MALAYSIA

The computation of the Index is shown in Table 3 using 2014 data from Malaysia as an example.

The access and usage dimensions could be further broken down into a sub-index, as the Financial Inclusion Index enables AFI members to calculate the percentage each indicator contributes to the overall level of financial inclusion. The sub-indices reveal the particular strengths and weaknesses of each dimension, and therefore serve as a useful guide for policymakers and other stakeholders to identify areas that need special attention. Activities that produce lower values may require policy changes to see improvement.

## INTERPRETING THE RESULTS

The level of financial inclusion in a country is determined by the IFI value and the following four categories:

1.  $0.75 < IFI \leq 1$  = high financial inclusion
2.  $0.5 \leq IFI < 0.75$  = above average financial inclusion
3.  $0.25 \leq IFI < 0.5$  = moderate financial inclusion
4.  $0 \leq IFI < 0.25$  = low financial inclusion

Malaysia's IFI score of 0.76 therefore represents a high level of financial inclusion in 2014.

As with any other index, the AFI Financial Inclusion Index has limitations. It currently only covers the strategic dimensions of access and usage, but it is a starting point for measuring financial inclusion and is closely linked to the AFI Core Set of Indicators. AFI members are encouraged to test and explore the Index as a first step in measuring the level of financial inclusion in their country.

## IN SUMMARY

With the Financial Inclusion Index, AFI members are able to identify and tackle specific weaknesses in financial inclusion. The Index can also be adjusted and expanded over time to reflect changes in a country's financial landscape, either by replacing some indicators or including more indicators and/or dimensions as they become more relevant to the national financial inclusion agenda.

TABLE 1: AFI CORE SET OF INDICATORS<sup>1</sup> ON ACCESS AND USAGE

DIMENSION	CORE INDICATOR
ACCESS	1. Number of access points per 10,000 adults at a national level, segmented by type and relevant administrative units
	2.1% of administrative units with at least one access point
	2.2% of total population living in administrative units with at least one access point
USAGE	3.1% of adults with at least one type of regulated deposit account
	3.2% of adults with at least one type of regulated credit account

TABLE 2: CALCULATING THE FINANCIAL INCLUSION INDEX

DIMENSION	CORE INDICATOR	WEIGHT OF EACH INDICATOR	TARGET	EQUAL WEIGHTED DIMENSION	EQUALLY DISTRIBUTED IFI
ACCESS	1. Number of access points per 10,000 adults at a national level, segmented by type and relevant administrative units	0.5	25	0.5	0-1.00
	2.1% of administrative units with at least one access point	0.25	100		
	2.2% of total population living in administrative units with at least one access point	0.25	100		
USAGE	3.1% of adults with at least one type of regulated deposit account	0.4	95	0.5	0-1.00
	3.2% of adults with at least one type of regulated credit account	0.6	40		
Index ranges from 0-1, with 1 being perfect financial inclusion					0-1.00

TABLE 3: MALAYSIA'S FINANCIAL INCLUSION INDEX

DIMENSION	CORE INDICATOR	WEIGHT OF EACH INDICATOR W	TARGET M	DATA FOR 2014 A	INDEX OF EACH INDICATOR X	INDEX OF EACH DIMENSION D	EQUAL WEIGHTED DIMENSION ω	IFI
ACCESS	1. Number of access points per 10,000 adults at a national level, segmented by type and relevant administrative units	0.5	25.0	4.0	0.16	0.58	0.50	0.76
	2.1% of administrative units with at least one access point	0.25	100.0	100.0	1.00			
	2.2% of total population living in administrative units with at least one access point	0.25	100.0	100.0	1.00			
USAGE	3.1% of adults with at least one type of regulated deposit account	0.4	95.0	91.5	0.96	0.94	0.50	0-1.00
	3.2% of adults with at least one type of regulated credit account	0.6	40.0	36.8	0.92			
Index ranges from 0-1, with 1 being perfect financial inclusion								0-1.00

<sup>1</sup> The Core Set of Indicators was developed to measure the most basic and important aspects of financial inclusion covering 2 dimensions: access and usage of financial services.

## APPENDIX

### STEPS TO ESTIMATING THE AFI FINANCIAL INCLUSION INDEX

First, a sub-index is calculated for each financial inclusion indicator. Then, the sub-indices are weighted and aggregated to create the dimension index, which is normalized to be between 0 and 1. The Index is the simple weighted average of the dimension indices.

The sub-index for the  $i^{\text{th}}$  indicators,  $X_i$ , is computed using the following formula:

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

where

$A_i$  = Actual value of indicator  $i$

$m_i$  = minimum value of indicator  $i$

$M_i$  = Maximum value of indicator  $i$

The Index for the  $i^{\text{th}}$  dimensions,  $X_i$ , is computed by:

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

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

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

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

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