



Microfinance Index of Market Outreach and Saturation

Cambodia

Interim Update: May 2016

Copyright 2016 by the MIMOSA Project.

We believe in sharing information. For this reason, this report is being made available free of charge to the Cambodian Microfinance Association and its members, the Credit Bureau of Cambodia, the National Bank of Cambodia, members of the Government of Cambodia, and students and researchers based in Cambodia.

All other parties should acquire this report by subscription. If you are reading this report and are not a subscriber and not among the above-listed parties, you are undermining the long-term sustainability of this project. The world of microfinance is small. We will find out and will not hesitate to publicize your violation through social media and other venues. So don't do it. It's not worth it.

To subscribe or request permission to cite this report in any publication, please contact us:
info@mimosaindex.org.

Since the publication of the last MIMOSA report on Cambodia, its score has breached 6, the highest level in the MIMOSA scoring framework. In the past year, an additional 2.6% of the country's adult population have become active borrowers, with the total penetration now at 19.9%.

The country's MFIs have continued on a path of extremely rapid growth, increasing the number of loans by 13.5% and portfolio volume by 39.6% during 2015. Competition among the MFIs has likewise continued to tighten with the HHI competition index now at 1030, from 1102 a year ago (lower number signifies higher competition).

Growth among banks has likewise continued. Excluding ACLEDA, banks in Cambodia have added 20% staff during 2015, and we estimate that this would reflect an even greater increase in the number of loans during the period. Bank loan portfolio to private sector grew by 25%. ABA bank – cited in our 2015 MIMOSA survey as one of the key emerging bank competitors to the MFIs – grew its staff by 47% and its portfolio by 78%.

The 2005 Microscope report raise its score for prevention of overindebtedness from 0 to 1, citing "some evidence of over-indebtedness monitoring," but the low score continues to pose a risk. There is as yet no regulatory guidance on client protection and collections practices. Some MFIs have been undergoing (and have received) Smart Certification, but most have not. Overall quality of regulation remains average.

In this context, we are **deeply alarmed** by the continuing level of growth. Cambodia has now reached a critical stage of saturation that in many cases signals a high degree of vulnerability to shocks. Among MIMOSA-assessed countries, only Peru is at a similar level of saturation (also at the low threshold of 6), but Peru is substantially wealthier and more developed, has much stronger regulatory capacity and a world-class financial infrastructure,

Category	Rating	Indicator	Nov '15	May '16
Saturation	6	Loan penetration over capacity	+ 8.8%	+ 11.3%
	n/a	Credit card penetration	2.3%	n/a
Regulation	●	Overall quality of regulation	56/100	55/100
	●	Prevention of overindebtedness	0/3	1/2
	●	Appropriate collections	0/2	0/2
	●	Quality of credit bureau & credit reporting	100/100	100/100
Competition / overheating	●	Level of competition among MFIs (HHI)	1102	1030
	●	% Borrowers with 3+ loans	4.5%	n/a
	●	Loan portfolio CAGR in value past 3 years	46%	39%
	●	Loan portfolio growth in value expected next 12 months	33%	n/a
Maturity of microfinance institutions	●	% clients at MFIs <10y or >20y old	60% >20y old	70% > 20y old
	●	Experienced crisis in past 15 years	No	No
Transparency	●	Composite transparency score	3.4/4	3.4/4
	●	% MFIs with ratings in past 2 years	88%	n/a
Other risks	?	FX exposure	n.a.	n/a
	●	Interest rate level (APR, excl. tax)	28.7%	n/a

and, most importantly, its penetration is not growing. Even so, despite these advantages, Peru is nevertheless struggling with serious overindebtedness issues.

On the other hand, Cambodia, without the strong mitigating factors of Peru, is instead continuing on a path of rapid growth, which has now lasted for over a decade. In the Special Discussion section below we review Cambodia's growth trajectory from two separate perspectives – growing loan sizes and growing Credit/GDP ratio, both of which point to the critical risks facing the country's financial and especially, its microfinance sector.

Naturally, important questions remain unanswered: How much multiple borrowing happens at the household level rather than individual? How to explain the divergence between the country's high penetration rate and the seemingly low level of multiple borrowing? How big a factor are the country's unregistered and unmonitored lenders? How common are cases of clients taking loans on behalf of others, including family members, neighbors, etc.? And ultimately, what is the level of household indebtedness and how many households can be assessed as overindebted?

These questions do need answers, but given the critical state of the situation, we believe **the only prudent course is to take preventive measures now**, and reassess the situation once these additional questions – all of which present substantial methodological challenges – can be answered. Critically, because of the highly competitive lending environment in Cambodia, only actions by the Central Bank of Cambodia can have sufficient impact. Absent such a mandated response, lenders seeking to slow down on their own will simply see their market positions replaced by more aggressive competitors – a particularly vicious competitive dynamic that rewards short-term gains and undermines long-term sustainability.

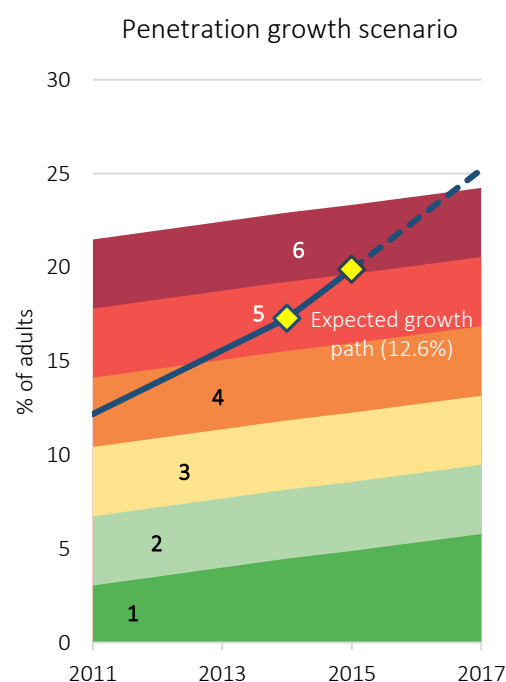
One plausible action by the central bank could be to **temporarily cap lending growth** at a level in line with GDP growth, i.e. between 5-10%. Once additional facts on the ground can be assessed, the cap may be revisited and potentially increased or lifted outright.

The time to act is now. Waiting is far too risky an option.

	2011	2014	2015	2017
HDI*	0.541	0.550	0.555	0.569
Population density per km ²	78.5	83.4	84.6	91.1
Credit Bureau Score	0.0	48.9	61.7	85.4
Loan capacity	6.7	8.2	8.6	9.5
Borrowers per adult	12.2	17.3	19.9	25.2
Microfinance loans per adult	15.4	20.6	22.2	28.1
MIMOSA Score	4	5	6	6
Credit card users per adult	0.1	2.3		
MIMOSA CC penetration score	●	●		
GDP per capita (current \$)	878	1,081	1,140	1,303
GDP, 3yr CAGR (current LCU)	7.5%	8.7%	8.7%	9.7%

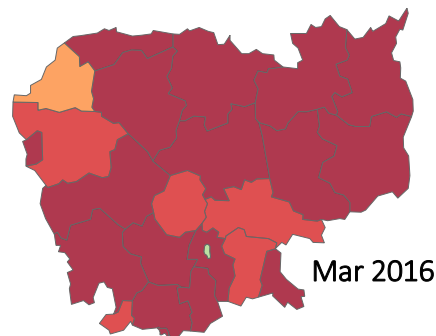
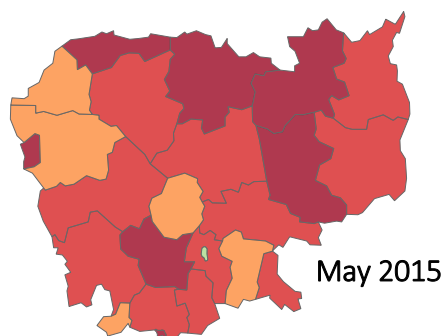
forecasts: IMF for GDP, UNDP for population; MIMOSA for others

* in the 2015 report, UNDP revised downward HDI figures for Cambodia, with changes applied to prior years as well.



MIMOSA Scores by Region

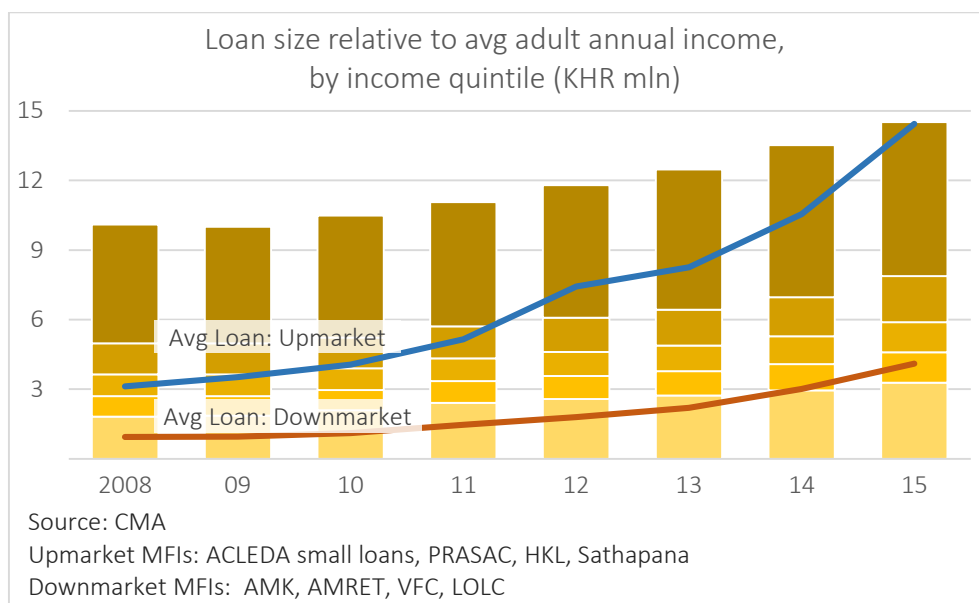
At the regional level, saturation in Cambodia is now nearly uniformly excessive. Only a handful of areas, namely Banteay Meanchey and Phnom Penh are significantly lower. Moreover, based on findings since the first Cambodia report, we are reevaluating the methodology used for assessing capacity in urban areas. As a result, we estimate that urban capacity may be significantly lower than modeled, and are thus reporting a score range of 2-3 for Phnom Penh. The remainder of the country remains at high or extreme levels of saturation.



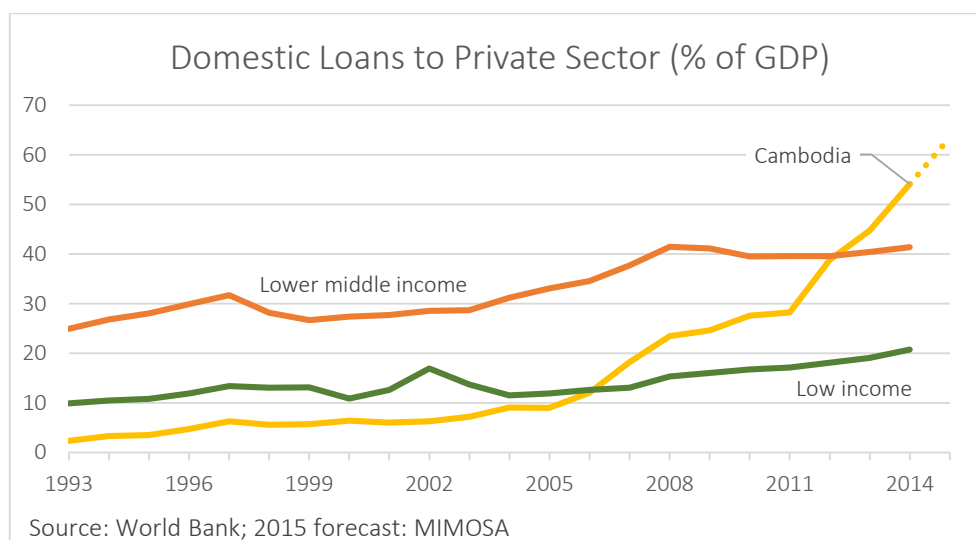
Region	Population (000s)	HDI	Population density (per km ²)	MIMOSA Score	Borrowing capacity (%)	Borrowers per adult (%)	Penetration over capacity
National	15,108	0.555	85	6	8.6	19.9	11.3
Kampong Cham	1,809	0.543	184	5	9.0	19.5	10.6
Phnom Penh	1,738	0.666	1,200	2-3	17.8	17.5	-0.3
Prey Veng	1,191	0.550	244	5	9.5	17.9	8.4
Battambang	1,154	0.555	99	5	8.7	17.6	9.0
Kandal	1,149	0.609	353	6	11.3	23.1	11.8
Takeo	951	0.552	267	6	9.7	22.0	12.4
Siem Reap	950	0.543	93	6	8.4	20.6	12.2
Kampong Speu	778	0.576	111	6	9.2	27.8	18.6
Banteay Meanchey	751	0.556	112	4	8.8	15.4	6.6
Kampong Thom	711	0.524	51	6	7.8	20.3	12.5
Kampot	630	0.560	129	6	9.0	20.7	11.8
Svay Rieng	595	0.547	201	6	9.2	21.0	11.9
Kampong Chhnang	539	0.545	98	5	8.5	16.2	7.8
Pursat	448	0.529	35	6	7.8	19.8	12.1
Kracheh	354	0.511	32	6	7.4	21.8	14.4
Preah Sihanouk	258	0.569	133	5	9.1	18.5	9.4
Preah Vihear	242	0.392	18	6	5.1	20.0	14.9
Otdar Meanchey	238	0.503	39	6	7.3	24.4	17.1
Ratanak Kiri	189	0.344	18	6	4.1	17.8	13.7
Stung Treng	126	0.326	11	6	3.8	17.1	13.4
Koh Kong	126	0.513	12	6	7.3	19.8	12.5
Mondul Kiri	75	0.430	5	6	5.7	21.0	15.3
Pailin	68	0.530	84	6	8.1	24.3	16.2
Kep	40	0.470	118	6	7.2	22.2	15.0

Special discussion: Loan size and credit growth

The upward trend in loan size has continued and even accelerated. The average loan size of MFIs that focus on the poorest clients in Cambodia – AMK, AMRET, VFC, LOLC – now stands at 70% of median annual income, up from 45% just two years ago. For MFIs that serve wealthier customers, average loan size now exceeds the average annual income of the wealthiest 20% of the population. The Cambodian economy is growing and incomes are rising, but loan sizes are rising much faster.



This growth in loan sizes is mirrored in the country's overall credit growth. As of 2014, domestic credit to private sector in Cambodia stood at 54% of GDP. Given the growth since then, it's probable that this figure is now well over 60%. That puts Cambodia well above the average for its peer group of lower-middle income countries, which currently stand at 41% credit/GDP. And in that group, Cambodia is one of the very poorest countries, having just graduated from the low-income country group in 2014. Thus, whereas a peer comparison might place Cambodia somewhere between the low-income and lower middle-income levels, i.e. credit/GDP ratio of around 30%, it currently stands at twice that level.



It's not just the level of credit penetration that separates Cambodia from its peers. Its growth rate makes it an outlier as well. For the past decade, Cambodia has increased its credit/GDP ratio by 45 points, up from 9% in 2004. The peer group for that type of rapid growth over an extended period is remarkably limited, despite examining all developing countries since 1980.

Developing countries with high Credit/GDP growth over an extended period*

Outcome	Country growth periods	Number of cases
Historical comparables		10
Major crisis	Bolivia 1986-98; Bosnia 2001-08; Indonesia 1987-97; Thailand 1981-97; Ukraine 1996-09	5
Serious overindebtedness	South Africa 1990-01 and 2002-07	1
Financial sector impact; broader economy only mildly affected	Philippines 1986-97; Vietnam 1995-2010	2
No negative impact	China 1983-93; Thailand 2001-13	2
Non-comparable examples		7
Growth ongoing / outcome unclear	Armenia 2002-14; Mongolia 2001-13	2
Growth due to rebound from earlier drop	Nepal 2002-09; Serbia 2002-10	3
Fast growth as symptom of hyperinflation	Brazil 1990-93; Zimbabwe 1999-02	2

* HDI < .75 in 2014, increase in credit/GDP ratio > 35 during any period of 10 years or less in 1980-2013 (World Bank)

The above list highlights just how risky such growth can be. Of the ten countries that can be used as historical comparables, only four can be said to have had positive or neutral outcomes. The remaining six experienced some combination of severe financial crisis, major economic downturn, or high levels of overindebtedness. In short, most countries traversing this path got burned.

Back in 2005, when Cambodia's financial sector took off, it was deeply under-developed and its rapid growth was the result of playing catch up. For over a decade, this worked perfectly well, but what seems clear at this point is that not only has Cambodia caught up with its peers, but for the past several years it has been surpassing them along nearly every possible indicator of penetration and growth, whether share of adult population who are borrowers, amount borrowed, or the overall share of credit in the economy.

For institutions that grew up in this environment, the expectations of that growth are now deeply ingrained. Yet it is a mathematical certainty that at some point Cambodia's financial sector, including the MFIs, will have to slow down. It's simply not possible for credit to grow five times faster than GDP, without at some point hitting a wall. This is no longer an obscure point – in November 2015, the IMF cited "rising financial sector vulnerabilities from rapid credit growth" as the number one domestic risk facing Cambodia.¹

A crisis in Cambodia is not a forgone conclusion; there is still time for a prudent change of course. Alternatively, the country can continue down the path of inexorable growth, accepting the attendant risks. But in that case, there should be a clear rationale. Maintaining the status quo is a choice, and those making the choice should weigh both the upside and downside of their decision. Each passing month of rapid growth is tantamount to deciding in favor of maintaining the status quo. Let's be clear about what that means.

¹ International Monetary Fund, Cambodia Article IV Consultation, IMF Country Report No. 15/307, Nov 2015

User Guide

This is an abbreviated guide. For explanation of the methodology behind the penetration and capacity values, please consult the MIMOSA whitepaper.

The MIMOSA index consists of several measures. The primary score evaluates the degree to which the level of penetration exceeds estimated market capacity. The score levels and their interpretation is shown in the below table.

MIMOSA Score	Penetration over/ under capacity		
	Percentage points	Standard Deviations	Market status
6	>11.1%	3+	Saturated
5	7.4-11.1%	2 to 3	
4	3.7-7.4%	1 to 2	
3	0-3.7%	0 to 1	Normal
2	-3.7 - 0%	-1 to 0	
1	< -3.7%	< -1	Underserved

In addition to the score, we include the component metrics underlying the capacity and penetration calculations:

Human Development Index (HDI): developed by UNDP to assess the level of development, comprising GNI per capita, life expectancy, and education metrics. The scale ranges from 0-1.

Population density per km²: standard measure retrieved from country statistical bureaus.

Credit Bureau Score: derived from the Getting Credit measures in the World Bank Doing Business report. We include the level of coverage, and amount of information (both repayment history and debt outstanding) provided. The scale ranges from 0-400.

Borrowing Capacity: % of adults expected to be active borrowers, based on the MIMOSA model.

Borrowers per adult: derived from multiple sources, including the World Bank Findex survey, central bank reports, credit bureaus, and MIMOSA field surveys.

Microfinance borrowers (% of loans): number of active loans of microfinance institutions. Usually defined either by institutional registration with the regulator or membership in the microfinance association. Multiple loans held with the same institution are counted once.

Credit card borrowers (% of adults): number of adults with an outstanding credit card balance. Figure from Global Findex.

Credit card score: level of penetration vs. capacity. Graded on a three-point scale, indicating a market whose credit card demand is under-served, appropriately served, or over-saturated.

GDP 3-year CAGR (current \$): three year cumulative growth rate of GDP. Figure from IMF WEO.

GDP per capita (constant LCU): figure from IMF WEO.

In addition, we include a list of indicators that serve as additional risks or mitigants that in aggregate may increase or reduce the country's ability to manage increased levels of penetration:

Category	Indicator	Indicator	Mitigant 	Neutral 	Risk 
Regulation	Overall quality of regulation	Overall microscope score (0-100)	≥ 75	50-75	< 50
	Consumer protection (OID)	Microscope score 4.2.1	3	2	0 or 1
	Consumer protection (Collections)	Microscope score 11.3.2	2	1	0
	Credit bureau, credit reporting	Microscope score 10	≥ 75	50-75	< 50
Competition / overheating	Level of competition	Herfindahl-Hirschman Index	$HHI > 3,000$	$1,500 < HHI < 3,000$	$HHI < 1,500$
	Multiple borrowing	% borrowers with 3+ loans	$< 5\%$	5-15%	$> 15\%$
	Prior growth	Loan portfolio 3-year CAGR	$< 2x$ GDP growth	2-3x GDP growth	$\geq 3x$ GDP growth
	Future growth	Loan portfolio 12-mth growth expectations	$< 2x$ GDP growth forecast	2-3x GDP growth forecast	$\geq 3x$ GDP growth forecast
Maturity of microfinance institutions	Age of FIs	% clients of MFIs $> 20y$ or $< 10y$ old	$> 65\%$ of the borrowers are clients of MFIs > 20 years old	Other	$> 65\%$ of the borrowers clients of MFIs < 10 years old
	Prior crisis experience	Date of previous crisis	Market experienced crisis in past 15 years	no crisis experience	
Transparency	Composite score	See Transparency worksheet	≥ 3		< 1.5
	Ratings	% leading MFIs rated in past 2 years	≥ 75	50-75	< 50
Other risks	FX exposure	% of loans in foreign currency	< 10	10-25	≥ 25
	Interest rate level	Average Full APR, weighed by number of borrowers	$< 30\%$	30-60%	$> 60\%$