WHITE PAPER
NOVEMBER 2018

BANKING FOR IMPACT

A historical review of our partner financial institutions, their business models and key developments

symbiotics

This publication follows of a series of white papers produced by Symbiotics intended to share market intelligence on different topics related to microfinance, financial inclusion and impact investing. Building on our track record of partnering with financial institutions in emerging and frontier markets, we have prepared this paper in order to trace the evolution of the financial inclusion sector. The paper thus offers a broad understanding of the specificities and differences that exist between financial institutions of different regions, types and size.

This paper was written by Ramkumar Narayanan.

A special thanks to Roland Dominicé, Brendan Mackinnon and Marina Parashkevova Holmegaard for their valuable contributions, as well as to Patrick d'Huart, Duncan Frayne, Vincent Lehner, Yvan Renaud, Jérôme Savelli and Sebastian Sombra for their review and market expertise insights.
The publication was proofread by Danielle Carpenter and designed by James Atkins Design Ltd and Pierre Weber.

01.1118

CONTENTS

Index of Figures

Index of Tables

Index of Boxes

Acronyms

ATM	automated teller machine
BOP	bottom of the pyramid
CAGR	compound annual growth rate
CAM	Central America, Mexico & the Caribbean
CAR	capital adequacy ratio
CEE	Central & Eastern Europe
CGAP	Consultative Group to Assist the Poor
COC	cost of clients
COF	cost of funds
CPP	client protection principles
D/E	debt-to-equity
DFI	development finance institution
DH	Moroccan dirham
DRC	Democratic Republic of the Congo
DTI	deposit-taking institution
EAP	East Asia & the Pacific
ECAM	Eastern Europe, Central Asia & MENA
EE	Eastern Europe
EIU	Economist Intelligence Unit
EUR	euros
FI	financial institution
Fintech	financial technology
FX	foreign exchange
GLP	gross loan portfolio
L&E	liabilities and equity
LAC	Latin America & the Caribbean
LC	local currency
LMIH	low- and middle-income household
LTD	loan-to-deposit
MENA	Middle East & North Africa
MF	microfinance
MFI	microfinance institution
MIV	microfinance investment vehicle
MIX	Microfinance Information Exchange
MNO	mobile network operator
MSME	micro-, small and medium enterprise
N/A	not applicable
NBFC	non-bank financial company
NBFI	non-bank financial institution
NGO	non-governmental organization
NIM	net interest margin
NPM	net profit margin
P2P	peer-to-peer
PAR30	portfolio at risk > 30 Days
PAR90	portfolio at risk > 90 Days
RCCA	Russia, Caucasus & Central Asia
ROA	return on assets
ROE	return on equity
SACCO	savings and credit cooperative
SAM	South America
SAS	South Asia
SDG	Sustainable Development Goals
SEA	South & East Asia
SME	small and medium enterprise
SSA	Sub-Saharan Africa
Sym-All	the Symbiotics universe of investees
TA	total assets
TCX	The Currency Exchange Fund
TechFin	technology finance
UCR	uncovered capital ratio
UN	United Nations
USD	U.S. dollars
USSR	Union of Soviet Socialist Republics
WCCU	World Council of Credit Unions

FOREWORD: A SENSE OF PURPOSE

By Roland Dominicé, CEO

We believe in *pushing money to where it normally doesn't flow*. Putting our beliefs into action, we have built the leading market access platform for impact investing. After almost 15 years of practice, Symbiotics can claim USD 5 billion of investments into 80 low- and middle-income countries that are largely out of the scope of traditional investment portfolios, reaching as far as possible into least developed economies. And in those markets, we have pushed our capital as deep as possible into the bottom of the pyramid. Over that period, we have analyzed more than 1,000 local financing intermediaries, all focusing on financial inclusion for micro-, small and medium enterprises and low- and middle-income households. We ended up investing in more than 300 of them, enabling them to service the financial needs of millions of small businesses and families. With average financing fluctuating between USD 1,000 and USD 1,500, this capital has empowered over 3 million borrowers, their employees and relatives, providing them with the credit they needed to further their livelihoods. It represents over 4,000 transactions that we sourced, structured and pushed out in capital markets across Europe, as well as exposing North American and East Asian investors to these opportunities. That's about one debt transaction issued every business day since inception, on average, coming out of our deal-making operations. Today these are split equally between single loans to about 25 investment funds and syndicated impact bond issuances, bringing a much larger crowd of professional investors on board.

The intent was clear from the start but the magnitude of the output, and the operations built to sustain it, have grown beyond our wildest dreams. Could we have known 15 years ago that with a simple idea, we would get caught in a much larger tide beyond our control? It became clear early on that we were at the right place at the right time with the right proposition. During this period, we certainly witnessed investors of all kinds who were unhappy with the disconnect between socio-economic dynamics at home and abroad and the way their money was managed and put to work by their bankers, the scandals they were exposing them to. We have seen these change-making investors, conscious of the power of their capital and asset allocation decisions, come to us, test our products, enjoy them and return. They have grown with us and, unsurprisingly, asked for more. We knew that our promise to expose their portfolios to simple, tangible, transparent and effective value propositions outside of known territories and into the real economy where there are the strongest capital needs made sense. We hadn't devised it like that but were just fulfilling the basic social function of finance, taking excess savings and putting it to work where it made the most sense.

We started in 2005 with a large Swiss bank onboarding retail investors, a European Union fund and a German development bank, a Dutch non-profit cooperative and a Swiss government fund, as well as several Swiss pension funds and both Austrian and German private clients. Soon thereafter, we engaged with private banks in Geneva, Luxembourg, Vaduz and Zurich, with specialized funds in France, Germany, the Netherlands, the United Kingdom and the United States, and with a dozen development banks across Europe and North America. Today our largest exposure is to pension and insurance beneficiaries, predominantly in Scandinavia. Recently, some of our banking clients have experienced growing traction from private clients in Hong Kong and Singapore, and a few in Tokyo.

We are just intermediaries, bringing wealth managers with new aspirations in the North together with inclusive bankers in the South. We simply lend into their operations, sustaining their growth. We will not claim the success and courage of their hardworking outreach at the bottom of the pyramid in their domestic markets. But we are amazed and thrilled by their capacity to innovate and be restless in front of the complexity and the extra miles they go to serve the many informal income streams and small ventures in order to increase access to basic goods and services, ground finance in the real economy, act as responsible bankers, create lasting business models and connect them to a multiplicity of networks across the globe.

This paper is dedicated to them, as a testimony of their diversity, depth, success and sense of purpose. They teach us every day what banking should be about. It is with pride and humility that we are opening up our database through this paper, telling the story of these *banking for impact* business models, witnessing their trends and evolutions across regions and segments in the past decade.

We started in Geneva, unsurprisingly between the largest concentration of private wealth management and of global soft power multilaterals, eventually figuring out a way to bridge that gap between the two shores of a same river. We now have 8 offices around the globe. We hope to continue our work and our journey by contributing to raising awareness among everyday savers and pensioners of the capacity they have to choose how their capital is put to work, of the very valid means that exist in unforeseen markets to create sustainable value. Put simply, we aim to inform them of the immense rewards they can gain by *pushing money to where it normally doesn't flow.*

1. INTRODUCTION

1.1 CONTEXTUAL BACKGROUND

Financial inclusion models have existed throughout history in various forms, from informal credit schemes in the early years to the supply of savings, insurance and payment products by more formalized and regulated institutions today. Whatever the channel, the common denominator for inclusive finance has been the delivery of affordable financial products and services that meet the needs of underserved individuals and businesses, with the goal of improving social and economic development.

A key pillar of financial inclusion has been microcredit as pioneered in the late 1970s in Bangladesh by Muhammad Yunus. Following its success, his Grameen Bank model was replicated in other countries. Microcredit first gained international recognition in 1998 when the United Nations (UN) General Assembly proclaimed 2005 as the International Year of Microcredit[1]. This aimed to promote the sector's contributions to the Millennium Development Goals. Around the same time (1997), the first Microcredit Summit took place in Washington, with more than 2,900 people from 137 countries gathering to launch a 9-year campaign to reach 100 million of the world's poorest families, especially women, by 2005 through credit for self-employment and other financial services[2].

Microcredit and microfinance more broadly benefitted from this increasing exposure through growing private sector investments and the establishment of the first commercial microfinance investment vehicle (MIV) in 1997. Ten years later, 80 MIVs were operating, enabling microfinance institutions (MFIs), primarily located in emerging and frontier economies, to access debt and/or equity financing[3]. In the latest Symbiotics MIV Survey, there were 111, representing USD 15.8 billion[4].

Fast-forward to 2018: enormous progress has been made in terms of financial inclusion worldwide. The World Bank highlights that over the 2011-2017 period, 1.2 billion adults opened an account in a bank or in another type of financial institution, such as a credit union, an MFI, a cooperative or the post office[5]. Meanwhile, the MFI loan portfolio worldwide is estimated at USD 114 billion, reaching 139 million low-income clients, the majority of whom are women (83%)[6].

1 United Nations Capital Development Fund. 2006. *International Year of Microcredit 2005 – Final Report.*
2 RESULTS Educational Fund. 1997. *The Microcredit Summit Report.*
3 Consultative Group to Assist the Poor (CGAP) & Symbiotics. 2016. *Microfinance Funds – 10 Years of Research & Practice.*
4 Symbiotics. 2018. *Symbiotics 2018 MIV Survey.*
5 World Bank Group. 2018. *Global Findex Database 2017 – Measuring Financial Inclusion and the Fintech Revolution.*
6 Convergences. 2018. *Microfinance Barometer 2018.*

The contribution of Symbiotics to financial inclusion since 2005 has consisted of the provision of debt financing to financial institutions (FIs), providing low- and middle-income households (LMIHs) and micro-, small and medium enterprises (MSMEs) in emerging and frontier economies with access to capital and financial services. There have been substantial changes at the level of our partner FIs since we made our first debt investment in an MFI in Peru, be it in terms of product offerings, institution building or new models/entrants in the sector.

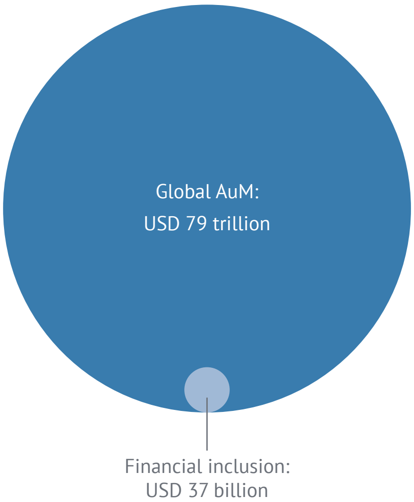
The concept of financial inclusion and its related terminology have evolved today far beyond the supply of microcredit. Thus, this paper looks back at the trends surfacing from our partner FIs 12 years after our first investment. The report serves as a granular benchmark, highlighting differences between regions and market segments over the years across various FI business model dimensions, such as target clientele, product offering, asset composition and quality, funding structure, risk management, and financial performance.

With the development world looking to fulfill the United Nations (UN) Sustainable Development Goals (SDGs) to 2030, FI efforts as enablers of financial inclusion and impact investing remain critical to ultimately bringing many of the SDGs within reach. As key drivers of this change, they most importantly will seek to innovate, sophisticate and deepen their products and services, eventually offering further economic opportunity and inclusion to their current clients as well as to the 1.7 billion adults in the world who remain unbanked, without access to capital or financial services[7].

7 World Bank Group. 2018. *Global Findex Database 2017 – Measuring Financial Inclusion and the Fintech Revolution.*

1.2 THE MFI BUSINESS CASE

Figure 1
Financial Inclusion Market Size



The global asset management industry is valued today at USD 79.2 trillion[8]; 2017 witnessed record net new asset flows since the financial crisis and the overall sector is forecasted to double in size by 2025[9]. In comparison, the size of cross-border funding to financial inclusion amounts to USD 37 billion, representing only a fraction of global capital (Figure 1)[10].

Despite being a relatively nascent segment, financial inclusion is a growing investment proposition and the most advanced solution to achieving the UN SDGs. Its paradigm of greater access to financial services not only serves many SDGs, it is also a key tool in the fulfilling of LMIH and MSME growth aspirations.

In particular, MSMEs constitute the largest employers in any given economy and often represent more than half of their GDP, consequently acting as a key engine of global growth. Yet, the biggest hurdle that MSMEs face in reaching their full potential is a lack of access to financial services. In emerging and frontier markets, the MSME funding gap is estimated at USD 5.2 trillion a year[11]. It is also emerging and frontier markets that will hold the largest share of the world's economic output by 2050[12]. And most importantly, these markets will have fastest growing populations and workforces, meaning that MSME financing needs and economic opportunities will be matched by growing numbers of people looking for jobs to fulfill their needs.

Inclusive FIs are crucial to these MSMEs, acting as financing agents and job enablers in a niche that is largely untapped by global banks. FIs also cater to the needs of LMIHs, an even more vulnerable segment for which access to capital and financial services acts as a basic human right, ensuring their financial security and providing for their livelihoods and well-being.

Inclusive FIs face, as any business, the usual life cycle of growth and maturation. They are specific in their challenges in the sense that their clientele is often vulnerable or underserved, with somewhat limited financial literacy or security to offer. Their funding cycle is also quite specific, defined by the regulatory framework they face, and the mission-driven investors they have. They are also largely dependent on changing market conditions and macroeconomic shocks in often less-stable environments.

8 Boston Consulting Group. 2018. *Global Asset Management 2018: The Digital Metamorphosis*.
9 PwC. 2017. *Asset & Wealth Management Revolution: Embracing Exponential Change*.
10 Consultative Group to Assist the Poor (CGAP). 2017. *International Funding for Financial Inclusion*.
11 International Finance Corporation. 2017. *MSME Finance Gap: Assessment of the Shortfalls and Opportunities in Financing MSMEs in Emerging Markets*.
12 PwC. 2017. *The Long View: How Will the Global Economic Order Change by 2050?*

In a usual microfinance institution trajectory, a three-step life cycle can be observed (Figure 2). In step 1, donor-funded seed capital enables the FI to start operating. They are usually unregulated at this stage and are often non-profits or NGOs. In step 2, with growth and self-sustainability aspirations, these FIs might transform into regulated NBFIs. In step 3, depending on their mission and local regulatory frameworks, some might acquire a banking license and complete their transformation, whereas others will receive deposit-taking licenses without necessarily becoming full-fledged banks.

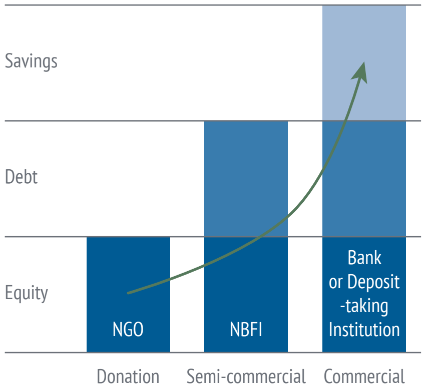
FIs that go through this life cycle witness a shift in the composition of their capital structure, often due to regulatory requirements. NGOs usually start operating with donated equity provided by mission-driven institutions (step 1) and then leverage capital through semi-commercial debt from off-shore development finance institutions (DFIs) and MIVs (step 2). Savings and deposits become a significant source of financing in step 3, at least with a funding structure that is largely domestic and almost entirely commercial[13].

Moreover, during this life cycle, FIs generally increase in size[14], usually from tier 3 FIs (step 1), to tier 2 (step 2) and eventually to tier 1 (step 3). While Symbiotics has witnessed cases where its partner FIs have started as NGOs and become banks directly (see institutional profile of 'Faulu', p. 52), a more common observation has been either a shift from NGO to NBFI or from NBFI to bank.

Product offerings evolve as well during the cycle, becoming more broad, more sophisticated, if not more inclusive, in the process. Savings, insurance, payment solutions, and non-financial offerings become available, enabling further positive social outcomes and value creation in the form of increased financial security, increased household consumption, and the capacity to further employment and entrepreneurship needs[15]. In addition, focusing on their loan portfolios, FIs grow their credit range from simple microenterprises in step 1, to a full range of microcredit, small business loans, larger corporate loans, household consumption loans, often housing loans and student loans, sometimes emergency credit lines for health purposes, or agricultural finance or energy finance products.

Inclusive FIs generate easily measurable output, with great outreach in breadth and depth into the bottom of the pyramid (BOP) and multiple positive social outcomes. Their impact will vary widely as well, depending on the focus of their business models, either on lowest income women, formalized mid-size enterprises, schools, mobile payment systems for access to energy, and so on.

Figure 2
Life Cycle of Microfinance Institutions



13 Symbiotics. 2012. *Microfinance Investments*.

14 For more information on the size breakdown of FIs, see section 1.3. *Definitions and Methodology*.

15 Symbiotics. 2017. *Measuring & Managing Social Performance*.

This paper focuses less on the outcome of their work than on their business models and how they have evolved[16]. Yet one can view the impact bias of step 1 FIs in their positioning deep in the BOP in terms of outreach and step 3 FIs in their broad coverage and product and service sophistication in terms of outreach.

For all the above-mentioned reasons, the profiles of inclusive FIs are very diverse and changing in nature. Their comparison and segmentation between regions, type and size need to be read with such heterogeneity in mind. This study also offers a series of benchmarks that are representative of where Symbiotics investor clients have allocated their funds and not necessarily of the entire financial inclusion industry exhaustively.

Prior to engaging in the analysis of regional differences, as well as variances among types and tier levels, a review of the median benchmark of all Symbiotics-funded FIs over the period provides much intelligence on industry developments.

Table 1
Clients Indicators, All FIs (Median vs. Weighted Average; 2006 vs. 2017)

	Median				Weighted average			
Clients	Dec 06	Dec 17	Growth	CAGR	Dec 06	Dec 17	Growth	CAGR
No. of Active Borrowers (thousand)	19.4	34.4	77%	5%	28.8	138.3	380%	15%
Average Loan Balance (USD)	1,099	1,600	46%	3%	1,102	1,442	31%	2%
No. of Active Depositors (thousand)	0	4.8	NA	NA	19.0	137.9	624%	20%
Average Deposit Balance (USD)	424	824	94%	6%	941	1,089	16%	1%
Women (% of clients)	48%	49%	1%	0%	57%	79%	40%	3%
Rural (% of clients)	34%	42%	23%	2%	37%	58%	57%	4%
Agriculture (% of clients)	7%	10%	33%	3%	14%	26%	81%	6%
Trade (% of clients)	38%	27%	-27%	-3%	39%	30%	-23%	-2%
Microenterprise Loans (% of GLP)	60%	58%	-4%	0%	58%	35%	-40%	-5%
SME Loans (% of GLP)	8%	14%	90%	6%	22%	27%	26%	2%

The borrowing clientele of the sample FIs has increased significantly: by 5% per annum for the median financial institution and by 15% per annum on a weighted average basis in the total sample. Average loans have remained relatively stable at between USD 1,100 and USD 1,600. This trend is even further accentuated on the liability side, with average savings remaining quite stable at between USD 400 and USD 1,100, with savings client growth rates higher than those of loan clients. But overall, we witness fast growth in

16 For a detailed analysis of the impact narratives and measurement of such FI, please refer to Symbiotics. 2017. *Measuring & Managing Social Performance*.

breadth of outreach, with stability in depth of outreach and a position quite deep in the BOP, irrespective of all other movements.

The women gender bias is stable for the median but quite accentuated for the weighted average, further reinforcing the sense of depth of outreach. This is also true for rural and agricultural activities. Although gross loan portfolios (GLPs) are historically anchored in microcredits for small urban trade, we also witness a material relative decline pointing to steady growth happening through a broader scope of credit products, in particular through small formalized business loans.

Table 2

Assets Indicators, All FIs (Median vs. Weighted Average; 2006 vs. 2017)

	Median				Weighted average			
Assets	Dec 06	Dec 17	Growth	CAGR	Dec 06	Dec 17	Growth	CAGR
Total Assets (USDm)	21	63	195%	10%	44	328	640%	20%
GLP (USDm)	18	52	197%	10%	34	229	576%	19%
Portfolio Yield*	28.1%	24.7%	-12%	-1%	25.8%	19.2%	-25%	-3%
Portfolio Operating Expense Ratio	14.2%	14.0%	-2%	0%	13.2%	9.1%	-31%	-4%
Loan Officer Productivity (USDk)	245.5	296.0	21%	2%	314.3	434.1	38%	3%
Cost of Clients (USD)	457	449	-2%	0%	394	289	-27%	-3%
PAR 30 (incl. Restructured Loans)	2.9%	4.3%	49%	4%	3.4%	6.7%	98%	6%
Write-off Ratio	1.3%	1.0%	-24%	-3%	0.9%	1.2%	34%	3%

Base value as of 12/2007

From a volume perspective, growth rates are even more impressive: the median FI has tripled in size while the weighted average has experienced annual growth of 20%, multiplying its size by six over the period. They have done so with economies of scale, for the benefit of borrowers, seeing their interest decline by 1 to 3% per annum, and for the FIs themselves, increasing productivity by 2% per annum. At the same time, portfolio expenses and cost effectiveness remain stable for median FIs to materially improve over time for the weighted average. Overall, FIs are experiencing more risk in their portfolios, growing by 50% to 100%, along this growth, diversification and sophistication curve. Yet they have kept their actual operational losses stable at about 1.0%.

Table 3
Funding Indicators, All FIs (Median vs. Weighted Average; 2006 vs. 2017)

	Median				Weighted average			
Funding	Dec 06	Dec 17	Growth	CAGR	Dec 06	Dec 17	Growth	CAGR
Debt (% of Total Assets)	65%	51%	-20%	-2%	37%	30%	-20%	-2%
Savings & Deposits (% of Total Assets)	0%	15%	NA	NA	44%	49%	14%	1%
Debt-to-Equity Ratio	3.7x	4.1x	13%	1%	5.0x	5.3x	5%	0%
Cost of Funds*	7.4%	8.8%	18%	2%	6.2%	6.8%	9%	1%

**Base value as of 12/2007*

Not surprisingly, smaller FIs rely little on savings (median), while larger institutions rely on it as a very substantial part of their funding (weighted average). But overall dependency on debt financing is decreasing, relative to savings and deposits, signaling an evolution in terms of the sophistication of the financing mix across the spectrum of FIs as supported by regulatory authorities globally that have gradually designed specific frameworks that allow institutions active in financial inclusion to offer all types of services and diversify sources of funding. Overall, leverage ratios remain quite low, with debt-to-equity levels between 3x and 5x and not growing more than 1.0% per annum. The cost of this funding has gone up, and done so more rapidly for the median FI. This is largely explained by an increase in local currency funding in the sample, usually at higher and more volatile rates than hard currency funding.

Table 4
Risk Indicators, All FIs (Median vs. Weighted Average; 2006 vs. 2017)

	Median				Weighted average			
RISK	Dec 06	Dec 17	Growth	CAGR	Dec 06	Dec 17	Growth	CAGR
Loan-to-deposit Ratio*	364%	182%	-50%	-7%	161%	115%	-29%	-4%
Current Ratio**	188%	134%	-28%	-3%	321%	127%	-60%	-9%
Uncovered Capital	7.3%	2.7%	-62%	-8%	-1.3%	10.7%	NA	NA
Risk Coverage Ratio (on PAR 30)***	92%	81%	-13%	-2%	84%	63%	-25%	-4%
Local Currency Liabilities & Equity	67%	95%	41%	3%	70%	73%	4%	0%

** Base value as of 12/2008*
*** Base value as of 12/2007*
**** Base value as of 12/2009*

Current ratios are dropping materially and rapidly but remain above 100, pointing overall to good solvency and liquidity levels. This can also be said about loan-to-deposit ratios as another measure of the liquidity of these institutions (to the exclusion of smaller median FIs where the deposit levels are quite low if not inexistent by nature). The risk coverage ratio has declined somewhat below 100%, with coverage for smaller and less leveraged median

FIs still effective on their portfolio at risk over 30 days. However, risk has grown materially in terms of the uncovered proportion of the capital base for the weighted average (up to 10%). Finally, the overall sample has seen its share of foreign currency liabilities decrease quite significantly for the median, somewhat less for the weighted average, but pointing to better forex risk management.

Table 5
Return Indicators, All FIs (Median vs. Weighted Average; 2006 vs. 2017)

	Median				Weighted average			
RETURN	Dec 06	Dec 17	Growth	CAGR	Dec 06	Dec 17	Growth	CAGR
Return on Assets	6.4%	1.7%	-73%	-11%	4.1%	1.7%	-58%	-8%
Return on Equity	25.4%	9.8%	-61%	-8%	23.1%	12.0%	-48%	-6%
Net Profit Margin*	15.1%	8.0%	-47%	-6%	14.3%	10.9%	-24%	-3%

**Base value as of 12/2007*

The sample FIs have declined in return or profitability, with returns on assets (ROAs) moving from 6.4% to 1.7% and returns on equity (ROEs) from 25.4% to 9.8%. This can be explained by tighter interest margins related to decreasing portfolio yields and stable, somewhat increasing cost of funds. But also, recent macroeconomic events like the drop in commodity prices has put pressure on the profitability in some MSME markets, shifting the ROE from 20%+ to 10% and net profit margins from roughly 15% to 8%. .

A generic profitability analysis points to an institution with 25% to 30% portfolio yield (charging 2% to 3% interest per month to its clients), with about 10% to 15% in operational expenses and 5% to 10% in cost of funding. The remaining net margin translates into a single digit return on assets, which, depending on leverage levels, produces a double-digit return on equity.

Overall, these institutions have produced more breadth of outreach and impact in terms of clientele while remaining positioned at the same BOP depth. They have also seen decreased interest rates, increased productivity and stable efficiency, while offering more risk appetite but stable loan losses. They remain profitable and attractive to commercial investors, even as they evolve in tighter and more competitive margin environments.

1.3 DEFINITIONS AND METHODOLOGY

This paper looks at historical Symbiotics investee patterns over the 2006-2017 period[17]. The FIs that compose the yearly samples are heterogonous in terms of their type and size. However, their commonality is that each FI is an enabler of *financial inclusion*.

We define financial institutions active in microfinance or financial inclusion as '*providers of financial services, in the form of credit, savings, insurance and payments, to a majority of clientele at the bottom of the pyramid, which is defined as low- and middle-income households (LMIHs) and/or micro-, small and medium enterprises (MSMEs)*.'

Elements of this definition can be further clarified as follows:

- **Bottom of the pyramid (BOP) population** refers to LMIHs and MSMEs in underserved economies, mostly in emerging and frontier markets.
- **Emerging and frontier markets** can be equated with middle-income and low-income countries respectively as defined by the World Bank.
- **Low- and middle-income households (LMIHs)** are defined as households with a net disposable income that is average or below average, ranging from extremely poor to moderately poor and vulnerable non-poor, as defined by the World Bank[18].
- **Micro-, small and medium enterprises (MSMEs)** are defined as small businesses that employ up to 5 employees, between 5 and 50 employees, and between 50 and 250 employees respectively.

In essence, this report includes all FIs financed by Symbiotics that encompass the above definitions. These FIs can be segmented by type, focus and tier. They are often microfinance institutions (MFIs) set up as banks, non-bank financial institutions (NBFIs), credit and savings cooperatives or non-profit/non-governmental organizations (NGOs). But increasingly they are commercial banks downscaling their services for the BOP population, targeting either such clients in full or partially through dedicated products and services. More recently, financial technology (fintech) players have entered the field. They often start by providing electronic payment systems and eventually grow their offerings. In addition, most of these partner financial institutions have been sector agnostic, adopting a diversified approach in terms of target clientele and segmentations, but some are sector specific, and increasingly so, focusing

17 Although Symbiotics made its first investments in 2005, the sample size at the end of that year is deemed too small and thus not representative enough.

18 Symbiotics. 2013. *Small Enterprise Impact Investing*.

solely on one type of clientele, theme, product or activity (agriculture, energy, education, housing, etc.). Finally, size matters; and business models, although mostly in rapid growth mode, vary quite significantly depending on their audience, loan and portfolio sizes.

While the client breakdown (section 5) offers a view of their sectorial approach, this report primarily segments the sample FIs by type, size (split in tiers) and region.

Types of financial institutions are broken-down into[19]:

- **Non-bank financial institutions (NBFIs):** They are often regulated as specialized financial institutions. Different types of NBFIs exist: finance companies, MFIs that have transformed from NGO status or leasing companies that generally address the fixed asset needs of SMEs among others. NBFIs have a more limited product offering compared to banks and in most cases cannot rely on savings to fund their growth. NBFIs thus largely depend on specialized lenders in order to grow. They have been the ones attracting the most foreign private sector capital.
- **Banks:** They are mostly specialized upscaling micro-banks or downscaling commercial banks with strong commitment to financial inclusion. In both cases, they are full-fledged banks with multiple financial products and services. Their refinancing strategies are primarily based on deposits from the public but also include a more sophisticated range of inter-bank loans, bond issuances and, sometimes, publicly traded equity.
- **Cooperatives:** They are credit and savings cooperatives, whether for-profit or non-profit, with their growth mostly through membership contributions and savings, and eventually through foreign or domestic loans when and if regulated.
- **Non-governmental organizations (NGOs)**: They are usually non-profit entities whose founding capital is composed of donor funding, often from foreign aid and development organizations. NGOs usually rely entirely on (commercial and concessional) debt financing, mostly from abroad, as the preferred source for their operational growth.

Size of financial institutions is broken down into:

- **Tier 3:** FIs with total assets below USD 10 million equivalent. They are likely to be NGOs, small credit and savings cooperatives, small-scale NBFIs or affiliates of international networks that just started operating.
- **Tier 2:** FIs with total assets between USD 10 million and USD 100 million equivalent. They are likely to be NBFIs, often with specific regulation, or credit and savings cooperatives.

19 Symbiotics. 2012. *Microfinance Investments.*

- **Tier 1:** FIs with total assets between USD 100 million and USD 1 billion equivalent. They are likely to be banks or upper scale NBFIs that have grown and transformed from lower scale operations. In some specific cases, they can also be large credit and savings cooperatives, often in countries with strong regulatory supervision of cooperatives.
- **Tier 1+:** FIs with total assets above USD 1 billion equivalent. In most cases, these FIs are either downscaling commercial banks partially targeting the BOP or pure financial inclusion banks with a large balance sheet, generally in large markets.

The different results in this report are derived from metrics reported on a monthly and/or annual basis by Symbiotics investees. All data points have been converted from domestic accounting currencies to U.S. dollars using a fixed exchange rate as of 31 December 2017, thus eliminating any effect of currency fluctuation that has taken place in investment countries during the period under review (2006–2017).

In addition:

- The sample size and its composition are variable over time, reflecting the state of the Symbiotics financial inclusion portfolio at any given value date.
- For each indicator, the report presents the sample's average and median values. When indicators are ratios, results are computed using weights linked to the ratio's denominator.
- The base year for each indicator depends on the number of available observations (a minimum of 30 observations is required).

Finally, this report segments the overall results into four large regions that cover the following geographies:

1. Eastern Europe, Central Asia & Middle East and North Africa (ECAM)

- Central & Eastern Europe (CEE)
- Middle East & North Africa (MENA)
- Russia, the Caucasus & Central Asia (RCCA)

2. Latin America & the Caribbean (LAC)

- Central America, Mexico & the Caribbean (CAM)
- South America (SAM)

3. South & East Asia (SEA)

- South Asia (SAS)
- East Asia & the Pacific (EAP)

4. Sub-Saharan Africa (SSA)

1.4 THE SAMPLE COMPOSITION

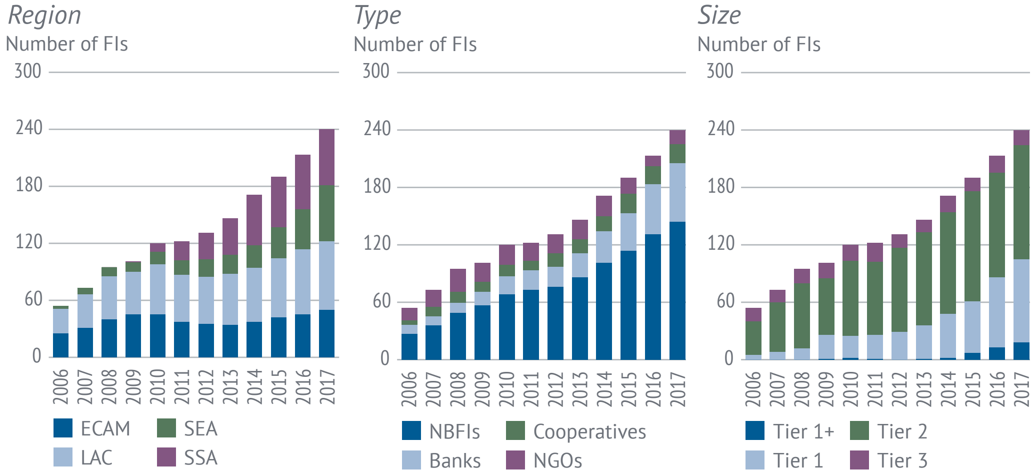
The following chapters offer a comprehensive 12-year review of our partner financial institutions' business models in emerging and frontier markets. Each section contains historical data points on a variety of quantitative indicators.

Over the study's 12-year period, the Symbiotics profile of investees has typically aligned with the inherent changes that have taken place in regional financial inclusion markets. The resulting trend lines presented in the following chapters thus translate these evolving realities. For example, as will be described in the regional profile, FIs have been growing and moving up-market in Latin America and the Caribbean (LAC), a region where economies are comparatively more developed and where the business sector has become more formalized over time. Symbiotics investments have followed this regional pattern in recent years by catering to the needs of larger FIs, notably large-scale banks and cooperatives. In contrast, South & East Asia (SEA) economies are lower income and present higher levels of financial exclusion. As a result, institutions in SEA have remained deeply rooted in microcredit and the region is a bedrock for a significant volume of financing solutions for lower market segments. Following this pattern, and as detailed in a specific sub-section later in the paper, the Symbiotics portfolio of investees in SEA is composed of FIs with a high volume of MSME loan offers and lower loan sizes (even by larger FIs).

Globally, our investment universe was initially composed of traditional MFIs, which essentially offered microcredit programs. Over the years, companies offering alternative types of financial products and services to underserved households and businesses emerged in our portfolio. As highlighted in Figure 3, the share of NGOs and tier 3 institutions, often specialized in basic credit services to the poor, was thus relatively higher in 2006 (24% and 26%) compared to 2017 (6% and 7% respectively). Inversely, tier 1 institutions increased from 9% of investees in 2006 to 36% in 2017, due on the one hand to tier 2 investees that grew to become tier 1 FIs and, on the other hand, to investments in new, larger commercial banks. Growth in the number of tier 1+ investees started in 2012, reaching 18 partner FIs in 2017, mostly focused on more traditional SME finance. Despite these evolutions, our sample remains predominantly composed of NBFIs and tier 2 institutions.

With that heterogeneity in mind, the results in the following sections are segmented by region, FI type and FI size. We believe these key performance indicators reflect market trends and realities, although they do not aim to be representative of the entire financial inclusion universe or its various segments but rather of the portion on which foreign investors were focusing.

Figure 3
Sample Composition




ER BAG
Levi

2. REGIONS

Levels of financial inclusion can be very different from one developing country to another.

The following chapters outline these differences by painting a historical picture of the progress and current state of inclusive finance in 4 specific regions:

- Eastern Europe, Central Asia and MENA (ECAM)
- Latin America & the Caribbean (LAC)
- South and East Asia (SEA)
- Sub-Saharan Africa (SSA)

Each regional profile describes the types of financial institutions that compose its inclusive finance landscape while also describing Symbiotics' investment output in each region through facts and figures on the company's portfolio of partner financial institutions since 2006.

COUNTRIES OF SYMBIOTICS' INVESTMENTS, PAST & PRESENT

- Albania
- Armenia
- Azerbaijan
- Belarus
- Bosnia and Herzegovina
- Bulgaria
- Georgia
- Jordan
- Kazakhstan
- Kosovo
- Kyrgyz Republic
- Macedonia
- Moldova
- Montenegro
- Morocco
- Poland
- Romania
- Russia
- Tajikistan
- Tunisia
- Ukraine
- Uzbekistan

2.1 EASTERN EUROPE, CENTRAL ASIA & MENA

The Eastern Europe, Central Asia & Middle East & North Africa (ECAM) region is composed of three sub-regions: Central & Eastern Europe (CEE), which was largely represented at inception in 2006 and has gradually declined as a proportion of the total sample; Russia, Caucasus & Central Asia (RCCA), which was for a period the largest sub-region in the sample and remains quite high overall; and the Middle East & North Africa (MENA), historically the smallest sub-region in the sample.

While it had been historically present in the form of dispersed savings cooperatives, microfinance in CEE was placed at the forefront after the break-up of the former Yugoslavia thanks to financing from international donors. Today, CEE is the most advanced of the three sub-regions in terms of financial inclusion. It is where the private sector is the most developed, digital payments the most frequent, and account ownership the highest. Top performers in these aspects are Croatia, Belarus, Macedonia, Bulgaria and Serbia, while Bosnia & Herzegovina (despite its crisis in 2009) and Romania have traditionally been the largest microfinance markets.

MFIs in the CEE sub-region, initially established as NGOs, have either transformed into NBFIs or kept the status of non-profit microcredit foundations. In accordance with the economic development of the sub-region, most MFIs have up-scaled their core business to SME lending. Those entities still face intense competition from local commercial banks as well as other actors, such as leasing companies, while foreign-owned banks have started to move up-market as well.

In terms of funding sources, local financing by banks has outpaced MIVs and development finance institutions (DFIs) in the last few years. However, according to the Symbiotics 2018 MIV Survey, Bosnia & Herzegovina and Serbia still attract a considerable amount of international funding[20].

In Russia, Caucasus & Central Asia (RCCA), MFIs were, similarly as for the Balkans, mostly established by international funding agencies in the mid-1990s after the fall of the Union of Soviet Socialist Republics (USSR). The particularly low population density of the region was a major challenge for FIs willing to enter the market. The considerable financial inclusion achievements over the last two decades, boosted by new technologies, are reflected in a flourishing SME sector. Regarding access to bank accounts, Georgia (61% of adults) and Kazakhstan (59%) lead the way, while Azerbaijan (29%), Uzbekistan (37%) and the Kyrgyz Republic (38%) still have room to progress[21]. The biggest microfinance markets in the region have been the Kyrgyz Republic, Tajikistan, Georgia and Armenia.

20 Symbiotics. 2018. *Symbiotics 2018 MIV Survey.*

21 Figures based on: World Bank Group. 2018. *Global Findex Database 2017*.

The majority of sub-regional MFIs are run under the NBFI status, while several of the largest ones have received banking licenses and have access to deposits.

As for MFI funding sources, MIVs have historically been very active in the region. However, foreign investments suddenly decreased in the 2015-2016 period as a result of defaults following performance deterioration in economies that depended, directly or indirectly, on the price of commodities, oil in particular. The microfinance sector was in turn affected by deterioration in asset quality and performance, particularly in Azerbaijan, Tajikistan and the Kyrgyz Republic. Today, with the recovery of macroeconomic conditions, MIV investments are slowly becoming prominent again. As at December 2017, Georgian (4th at a global level), Armenian (13th) and Kazakh (15th) MFIs are indeed among those attracting the most MIV funding in terms of total volume[22].

The third sub-region, the Middle East & North Africa (MENA), is characterized by low banking penetration (adult account holders) in large populated countries such as Iraq (23%), Morocco (28%), Egypt (32%) and Tunisia (37%). It is also where the most workers receive their wages in cash, hand-to-hand (74% in Iraq, 68% Palestine, 65% Egypt)[23].

NGOs have traditionally been and still are market leaders. In Morocco for instance, microcredit associations are by law the only actors that can provide microfinance services and are not allowed to collect deposits. In Tunisia, MFIs are able to register either as limited liability companies or as associations. In terms of funding sources, institutions differ significantly from one another. For example, regulated MFIs in Lebanon depend largely on lending from local banks, whereas international funding is more prevalent in Egypt. As for MIV investments in the region, Tunisia absorbed the largest volumes, followed by Egypt, Morocco, Jordan, Lebanon and Palestine[24].

The Economist's 2018 Global Microscope reveals that Jordan and Morocco are the sub-regional top scorers in terms of government and policy support for financial inclusion. This is a strong achievement given that back in 2009, after the sector's rapid growth, the financial crisis backlash put a spotlight on poor lending discipline and governance, as well as lax controls that had emerged over this period[25]. The country was able to recover quickly and, from 2011 onwards, the government focused on strengthening the sector's institutional framework.

22 Symbiotics. 2018. *Symbiotics 2018 MIV Survey*.
23 Figures based on: World Bank Group. 2018. *Global Findex Database 2017*.
24 Symbiotics. 2018. *Symbiotics 2018 MIV Survey*.
25 International Finance Corporation. 2014. *Ending the Microfinance Crisis in Morocco: Acting early, acting right.*

Furthermore, the MENA region, which hosts some of the largest oil producers in the world, also went though some challenging macroeconomic conditions following the decrease in commodity prices between June 2014 and February 2016. Uprisings during the Arab Spring also affected the microfinance industry to varying degrees. Some MENA markets witnessed sharp decreases in portfolio quality while others were more resilient. Progress has been witnessed in more recent years, including with political, economic and regulatory developments. Many countries have promoted financial inclusion, with elaborate national microfinance strategies, product innovation efforts and increased supervisory surveillance[26].

Overall Eastern Europe, Central Asia and MENA has been a key geography historically for Symbiotics since its inception in 2005. We have originated more than USD 1.1 billion of debt financing to 86 investees in 22 countries (Table 6). Central & Eastern Europe, essentially the Balkans, was the first geographical focus for the firm in 2005. Lending activity took off in Russia, Caucasus & Central Asia from 2006 onwards. Our lending activity in the Middle East & North Africa has historically been lower than in the other sub-regions. Despite the entrepreneurial spirit that traditionally exists in MENA, the availability of significant soft money has limited the ambitions of partner FIs to access commercial funding.

Our regional sample over the years has tilted towards NBFIs and banks for the most part, together representing 96% of all our investees in the region as of December 2017. We have also been growing our offering to tier 1 FIs in recent years; many private banks with DFI shareholding have been increasingly present in the lower SME segments. However, tier 2 FIs continue to form the bulk of our sample across the review period.

26 Consultative Group to Assist the Poor (CGAP). 2012. *The Arab Spring: An Opportunity for Financial Inclusion?*

Table 6
Key Statistics – Eastern Europe, Central Asia & MENA

	Origination (USD M)	No. of FIs	No. of Countries
CEE	215	28	11
RCCA	893	52	8
MENA	41	6	3
Total	**1,149**	**86**	**22**

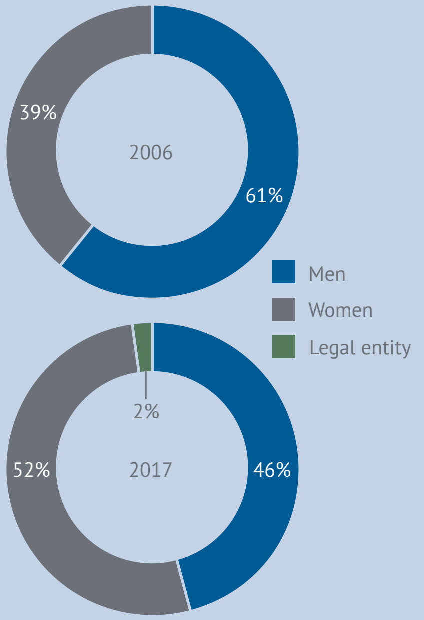
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Number of FIs by sub-region												
CEE	12	14	17	17	15	9	6	6	6	9	12	14
RCCA	12	16	21	26	27	26	28	28	31	31	30	32
MENA	1	1	2	2	3	2	1	0	0	2	3	4
Number of FIs by type												
Bank	4	3	5	6	6	5	7	8	9	11	15	18
Cooperative	0	0	0	1	1	1	1	0	1	1	0	0
NBFI	14	19	25	29	30	28	25	23	24	26	27	28
NGO	7	9	10	9	8	3	2	3	3	4	3	4
Number of FIs by size												
Tier 1+	0	0	0	0	0	0	0	0	0	0	0	1
Tier 1	1	3	5	6	4	4	4	6	9	13	18	20
Tier 2	15	21	27	26	30	23	26	26	28	28	24	25
Tier 3	9	7	8	13	11	10	5	2	0	1	3	4
Total	**31**	**40**	**45**	**45**	**37**	**35**	**34**	**37**	**42**	**45**	**50**	**50**

KEY FACTS

BOSNIA AND HERZEGOVINA

Incorporation year	1996
Type	NBFI
Size in Dec 06	Tier 2
Size in Dec 17	Tier 1
TA growth	8% p.a.

Gender Outreach (% of borrowers)



Credit Products (% of GLP)

Year	MSME	Other
2006	88%	12%
2017	67%	33%

Credit/Savings Profile (USD)

Year	Av. Loan Balance	Av. Deposit Balance
2006	1,807	No deposits
2017	2,124	No deposits

EKI

INSTITUTIONAL PROFILE EKI

EKI Microcredit Foundation (EKI MCF), a non-profit microcredit organization, was created in 1996 as part of the microcredit program of World Vision International, a globally active NGO addressing the causes of economic poverty in Bosnia & Herzegovina.

Under the microcredit foundation license, EKI was only allowed to offer loans of up to EUR 2,500. Confronted with the near saturation of the microcredit market in Bosnia & Herzegovina, in October 2013 EKI MCF purchased microcredit enterprise Adria to create Microcredit Company EKI (EKI MCC), a status that allows it to provide loans of up to EUR 12,500 (a limit since then raised to EUR 25,000). The reason behind this acquisition is that the law makes it impossible for an NGO to transform into a for-profit NBFI. While EKI MCF is gradually transferring its assets to its subsidiary, both were approximately the same size by December 2017. The transfer is expected to be completed by 2020, with a mandatory EUR 8 million donation remaining at EKI MCF.

As a consolidated entity, EKI is now able to offer a broader range of loan products, including loans for housing, small businesses and agriculture. As at December 2017, EKI's emphasis continues to be on microenterprises, followed by housing. Its principal business clients are rural microentrepreneurs who wish to start or expand their business, most of whom work in the agricultural sector. Also, women represent more than half of borrowers.

EKI, which is not allowed to access savings and deposits, mostly funds its loans through senior debt (64%). In addition to its core business, EKI has donated a significant portion of its funds to projects targeting youth, with a particular focus on sports and culture.

> *"As a consolidated entity, EKI is now able to offer a broader range of loan products, including loans for housing, small businesses and agriculture"*

БАНК КОМПАНЬОН

INSTITUTIONAL PROFILE
KOMPANION BANK

Kompanion was established in 2004 to take over several microcredit programs managed by Mercy Corps, a worldwide humanitarian NGO that had been operating in the Kyrgyz Republic since 1994. Initially running as a limited liability company, Kompanion transformed into a bank in January 2016. Today, thanks to its presence across all the country's regions, the FI boasts one of the largest client bases in the Kyrgyz Republic.

Kompanion historically focused on providing solidarity group loans and technical assistance to microentrepreneurs, in particular small-scale farmers, livestock herders and shepherds operating in remote areas. Its banking license allowed it to offer deposit services as well as higher individual loans, which explains why its share of SME and rural clients has continually increased since 2016. By December 2017, more than half (53%) of Kompanion's clients lived in urban areas (up from 18% in 2015), while individual loans are expected to become the leading product in terms of volume in the near future. As part of the Agricultural Financing state program, and in accordance with its historical clientele, Kompanion offers preferential terms on individual loans for the development of stockbreeding, crop production and processing of agricultural products.

Its adoption of client protection principles has led Kompanion to be the first Kyrgyz company certified by the Smart Campaign, in April 2014 (a certification that was validated once again in April 2017). In November 2014, Kompanion became the first institution in Central Asia to win the European Microfinance Award. The jury recognized the innovation of its Pasture Land Management initiative, which combines tailored financial products and education programs on the preservation of pasture lands and mitigation of soil degradation risks.

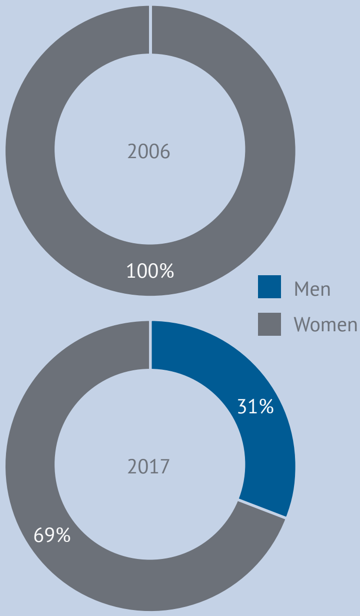
> *"Kompanion offers preferential terms on individual loans for the development of stockbreeding, crop production and processing of agricultural products"*

KEY FACTS

KYRGYZ REPUBLIC

Incorporation year	2004
Type	Bank
Size in Dec 06	Tier 3
Size in Dec 17	Tier 2
TA growth	32% p.a

Gender Outreach
(% of borrowers)



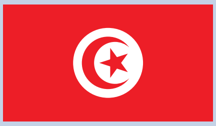
Credit Products (% of GLP)

Year	MSME	Other
2006	100%	0%
2017	78%	22%

Credit/Savings Profile (USD)

Year	Av. Loan Balance	Av. Deposit Balance
2006	792	No deposits
2017	848	115

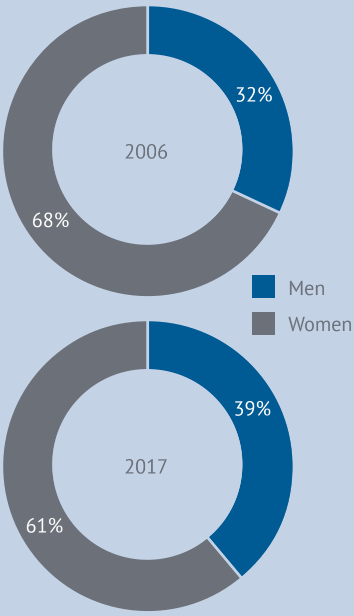
KEY FACTS



TUNISIA

Incorporation year	1990
Type	NGO
Size in Dec 12	Tier 2
Size in Dec 17	Tier 1
TA growth	28% p.a

Gender Outreach (% of borrowers)



Credit Products (% of GLP)

Year	MSME	Other
2012	78%	22%
2017	76%	24%

Credit/Savings Profile (USD)

Year	Av. Loan Balance	Av. Deposit Balance
2012	219	No deposits
2017	498	No deposits

INSTITUTIONAL PROFILE ENDA TAMWEEL

Enda Inter-Arabe was Tunisia's first organization specializing in microlending. It was launched as an international NGO in 1990 and has been instrumental in the elaboration of the first legal framework for the Tunisian microfinance sector, which has been in place since 2011.

Today, the NGO is officially registered as a microfinance limited liability company (LLC), operating under the name Enda Tamweel (ENDA) since late 2015. ENDA aspires to contribute to the financial inclusion of marginalized households, including women and youth, through socially responsible microfinance. It has benefitted from technical assistance from many development finance institutions and international organizations throughout its history, while its large and diversified funding base has also helped the institution to achieve its goals.

ENDA currently captures more than 85% of the market addressed by Tunisia's microfinance LLCs. It is by far the biggest MFI in Tunisia, both in terms of clients and portfolio size. It has a country-wide presence via 80 branches offering 13 different loan products as well as some vocational training for entrepreneurs. The NGO's clientele is mainly active in agriculture and trade but it also caters to clients in the production and services sectors.

ENDA has consistently delivered impressive portfolio quality – partially a result of the conservative provisioning policy it adopted after the Arab Spring.

With the aim of serving remote clients in rural areas, ENDA is leveraging technology and has introduced innovative delivery channels, such as mobile vans that operate as fully functional branches. ENDA is also innovating on the environmental front, having introduced "Eco-ready" products targeting customers engaged in recycling and waste disposal.

ENDA was the first FI in the MENA region to receive the Smart Campaign's certification for client protection.

"With the aim of serving remote clients in rural areas, ENDA is leveraging on technology"

2.2 LATIN AMERICA & THE CARIBBEAN

Latin America & the Caribbean (LAC) has historically been the most successful region in terms of expanding financial services to underserved populations, with differences between South America (SAM) and Central America, Mexico & the Caribbean (CAM), or even within countries from those two sub-regions.

Microfinance services began to develop in the late 1970s and early 1980s in the region. Key players introduced new lending approaches, including the group lending methodology from Accion International, the individual lending approach by the Internationale Projekt Consult (IPC), and the village banking approach developed by FINCA[27].

With a few exceptions, FIs providing these services were mainly non-regulated entities setup as NGOs and foundations. Other types of actors were credit unions (cooperatives) or MFIs that started their operations as regulated institutions. Progressively, microfinance attracted commercial banks that downscaled their operations to reach a new niche of clients, while other commercial banks focused exclusively on microfinance as their main line of business. With the gradual entry of new financing entities, LAC markets have become more regulated, enabling a shift from non-profit models to self-sustainable ones. NGOs or NBFIs with historical footprints have become regulated institutions, some even becoming large banks. As such, the existence of solid regulations, legal frameworks and national policy measures related to financial inclusion in many countries are the region's key strengths, making it the most mature worldwide.

Many LAC countries, be they southern or central, rank high every year on the list of most favorable environments for financial inclusion developed by the Economist Intelligence Unit (EIU). In their latest study[28], 12 of the first 20 countries, including the top three, are from the region. Credit bureaus are relatively well established and governments in several countries are improving the regulation of financial agents, creating opportunities for further innovation in correspondent and mobile banking and overall digital financial services.

Colombia and Peru have the most sophisticated financial inclusion environments globally thanks to high degrees of collaboration between their respective regulatory and supervisory authorities, as well as close cooperation with the private sector. Other measures, like minimum capital requirements for safe market entry or reporting requirements to facilitate financial activities, have helped other LAC countries to become business-friendly environments for financial inclusion.

COUNTRIES OF SYMBIOTICS' INVESTMENTS, PAST & PRESENT

- Bolivia
- Brazil
- Colombia
- Costa Rica
- Dominican Republic
- Ecuador
- El Salvador
- Guatemala
- Honduras
- Mexico
- Nicaragua
- Panama
- Paraguay
- Peru
- Uruguay

27 Inter-American Development Bank. 2006. *Microfinance in Latin America and the Caribbean: Connecting Supply and Demand.*

28 Economist Intelligence Unit. 2018. *Global Microscope 2018: The enabling environment for financial inclusion.*

This enabling framework has attracted significant cross-border funding, from both the private and public sectors, with DFIs rapidly increasing their presence in SAM. According to the Consultative Group to Assist the Poor's (CGAP) cross-border survey, commitments for financial inclusion in LAC reached USD 4.1 billion in 2016[29], while the outstanding MIV microfinance portfolio amounted to USD 3.6 billion at the end of 2017, growing at a rate of 20% annually since 2006[30].

Such an international funding scale over the years, both public and private, is remarkable considering that LAC remains a region where domestic funding for financial inclusion is very prominent and usually more attractive for FIs. In some countries, such as Bolivia, Colombia, Ecuador and Mexico, government programs fund NGO-type MFIs (non-deposit taking) at very low rates. These markets, especially in Colombia and Ecuador, but also Peru, are also home to banks and very large cooperatives that have become sophisticated, leading to their transformation into regulated institutions that are able to absorb the savings that make up their main funding source. Some of these institutions are also accessing the local capital market through bond issuances. Ecuadorian institutions are still dependent on external funding though, more so than Colombian ones for instance.

Generally, NGO-MFIs or other non-deposit taking institutions often continue to privilege MIVs over government credit lines, in spite of more attractive or subsidized interest rates, due to specific eligibility criteria and usage requirements. Also, with the exception of Colombia, these government programs are usually small in size. With MIVs, funding is obtained on more flexible terms and much more efficiently in terms of the overall investment process. They also appreciate the diversification factor it brings to their funding and sometimes the reputational advantages it offers, in particular for banks issuing bonds. Longer-term MIV credit tenors also explain this bias, in particular for cooperatives with mostly short-term member savings and deposits.

In contrast to SAM, government funding is scarcer in Central American and Caribbean countries, where economies are generally smaller and weaker. Also, as a consequence, regulatory supervision is somewhat weaker. In general, Central American financial institutions tend to reach out quite a lot to foreign funders to sustain their activities. One exception is Costa Rica, where cooperatives and banks collect important amounts of local savings. However, even in those cases, they still need the long-term funding that is largely facilitated by MIVs today. Local commercial banks have also increased their exposure to local microfinance providers, despite still being quite expensive.

29 Consultative Group to Assist the Poor (CGAP). 2017. *International Funding for Financial Inclusion*.

30 Symbiotics. 2018. *Symbiotics 2018 MIV Survey*.

In spite of important growth and success, the financial inclusion sector in LAC has not been totally immune to macroeconomic downturns. The global financial crisis had important repercussions throughout the region, importantly in Nicaragua for instance (Box 1), and the investment value-chain, as illustrated further in this paper, during the 2009-2011 period.

Symbiotics started working in the region from its inception; the first loan was made in Peru in 2005. At the end of 2017, the company had invested nearly USD 1.5 billion, financing 135 partner FIs in 15 different countries (Table 7). Today LAC forms our largest region, where we have grown by 39% per year since 2006. Our sample is primarily composed of NBFIs and tier 2 FIs despite witnessing a growing number of banks and tier 1 institutions, as well as tier 1+ institutions starting in 2015. Also, more so than in other regions, our LAC sample includes a significant number of cooperatives, which are generally large in size. In general, the sample in the region has seen a significant shift upwards in the market in terms of type of partner FI.

Box 1
The Microfinance Crisis in Nicaragua

In the lead-up to its crisis, Nicaragua had one of the most dynamic microfinance markets in the world. The FIs composing the microfinance sector were mostly NGOs with loan portfolios largely inclined to micro-enterprises in the agricultural sector. When the global financial crisis hit in mid-2008, loose credit practices of FIs came to light from the excessive growth rate the sector had enjoyed till then, led by significant financing from both domestic and foreign commercial investors. Unsupervised levels of over-indebtedness emerged at a time when the agricultural sector was hit by a drop in prices, putting further pressure end-clients' repayment capacity and impacted the portfolio quality of FIs. Also, the liquidity crunch which took local and foreign funders by surprise dried out most refinancing sources for FIs. Clients located in the northern parts of Nicaragua organized the populist 'No Pago' movement, refusing to pay back their loans and demanding long term grace periods and reduced rates. A legislative initiative to allow debtors a payment moratorium created further uncertainty and impaired repayments until it was passed in late February 2010. By the end of 2011, the microfinance market in Nicaragua had collapsed, losing 70% of its volume and 30% of its clientele[31]. As is the case for most crisis, regulatory intervention soon followed in order to stabilize and re-vitalize the sector. In January 2012, a new microfinance law was promulgated which brought improvements with regards to interest rate caps, legal recovery of past-due loans, local securities issuance and credit bureau use.

31 Symbiotics. 2012. *Microfinance Investments.*

Table 7
Key Statistics – Latin America & the Caribbean

	Origination (USD M)	No. of FIs	No. of Countries
SAM	904	68	7
CAM	540	67	8
Total	**1,444**	**135**	**15**

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Number of FIs by sub-region												
SAM	21	23	29	31	35	33	32	35	34	35	37	35
CAM	5	12	16	14	18	17	18	19	23	27	32	37
Number of FIs by type												
Bank	3	4	3	5	7	8	5	5	7	7	14	14
Cooperative	5	10	12	9	10	8	10	11	11	15	16	18
NBFI	12	13	16	20	24	23	23	26	26	30	33	33
NGO	6	8	14	11	12	11	12	12	13	10	6	7
Number of FIs by size												
Tier 1+	0	0	0	1	1	1	0	1	1	4	8	8
Tier 1	3	4	6	16	16	16	17	19	19	19	23	28
Tier 2	19	26	32	25	32	28	30	33	35	39	38	36
Tier 3	4	5	7	3	4	5	3	1	2	0	0	0
Total	**26**	**35**	**45**	**45**	**53**	**50**	**50**	**54**	**57**	**62**	**69**	**72**

Impulsamos su desarrollo
RIOBAMBA Ltda.
Cooperativa de Ahorro y Crédito

INSTITUTIONAL PROFILE COAC RIOBAMBA

Located in Central Ecuador, the Cooperativa de Ahorro y Crédito Riobamba (COAC Riobamba) is a cooperative with a 40-year operational track record. The entity's mission is to support the development of its associates and the communities in which it operates through the provision of timely and efficient financial services.

COAC Riobamba has been a regulated FI since 1986, first under the control of the Banking Superintendence and then more recently (2012) under the Popular and Solidarity Economy Superintendence. Most of COAC Riobamba's branches are located in the cooperative's home market, in Chimborazo province, where it enjoys a strong position. The FI is also present in two other highly populated Andean provinces.

In addition to traditional credit and savings products, COAC Riobamba also offers other financial and non-financial products that are highly valued by its members, including insurance, payment, education and health services. Its main credit product is microenterprise loans that account for over half of its GLP.

The cooperative has historically focused on placement quality, which has enabled it to maintain low PAR30 values. Its highly efficient model has ensured adequate profits and growth (+17% per annum) and has been fueled by the cooperative's reliable and loyal depositors.

COAC Riobamba is also a strong performer on the social front, maintaining its founding social values despite becoming one of Ecuador's largest cooperatives. The FI is also highly committed to client protection through internal policies, transparent communication and close working relationships with the local credit bureau in order to prevent over-indebtedness.

Today, COAC Riobamba serves more than 25,000 borrowers and 85,000 savers through 12 regular service points.

"COAC Riobamba has maintained its founding social values despite becoming one of Ecuador's largest cooperatives"

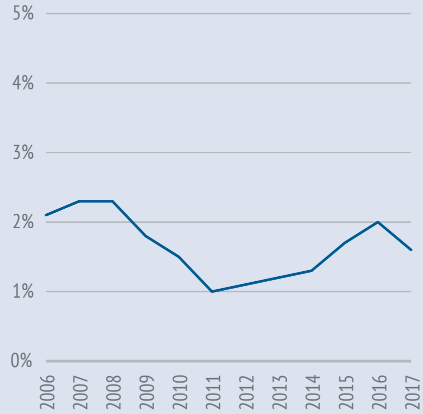
KEY FACTS

ECUADOR

Incorporation year	1978
Type	Cooperative
Size in Dec 06	Tier 2
Size in Dec 17	Tier 1
TA growth	17% p.a

High Portfolio Quality

Par 30 (incl. Restructured Loans)



Credit Products (% of GLP)

Year	MSME	Other
2006	61%	39%
2017	60%	40%

Credit/Savings Profile (USD)

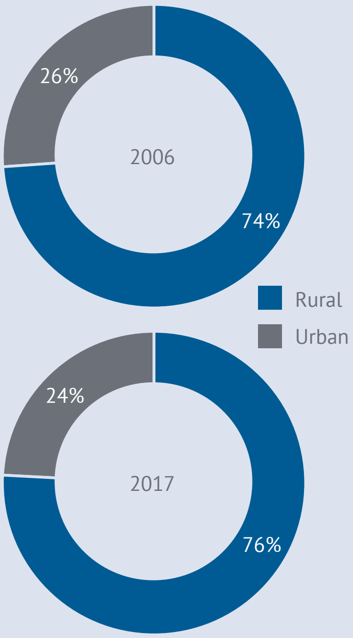
Year	Av. Loan Balance	Av. Deposit Balance
2006	2,963	930
2017	6,158	2,633

KEY FACTS

NICARAGUA

Incorporation year	1992
Type	NBFI
Size in Dec 06	Tier 2
Size in Dec 17	Tier 1
TA growth	14% p.a.

Client Location
(% of borrowers)



Credit Products (% of GLP)

Year	MSME	Other
2006	83%	17%
2017	69%	31%

Credit/Savings Profile (USD)

Year	Av. Loan Balance	Av. Deposit Balance
2006	365	No deposits
2017	1,413	No deposits

INSTITUTIONAL PROFILE FINANCIERA FDL

Fondo de Desarollo Local (FDL) was established as an NGO in 1992 under the Nitlapan initiative of the Central American University's Institute for Investigation and Development (US). The objective was to help peasant farmers and lower middle classes in the countryside to exploit the land parcels they were attributed as part of the agrarian reform. FDL, which quickly positioned itself as a pioneer in the rural credit market, is the largest MFI in the country. After several years of transition, FDL acquired NBFI status in May 2016 and is currently regulated by the Superintendence for Banks and Other Financial Institutions (Siboif).

However, the road to this leading position was not without pitfalls. As happened to many other Nicaraguan MFIs, FDL experienced its decisive growth in the years prior to the global financial crisis. The number of clients jumped from 29,000 in 2004 to more than 82,000 in 2008. FDL was hence severely affected when the decrease in crop prices made it impossible for many agricultural clients to repay their loans. This stress was amplified by the No Pago Movement. Fortunately, the company was able to recover thanks to the adoption of better practices, an improved regulatory framework for microfinance and the confidence of international investors.

Today, FDL is renowned for its deep bottom line outreach, its wide national network and its support of sustainable agriculture. As at December 2017, over 75% of FDL borrowers, mostly small farmers, are located in rural areas. Key products remain agricultural and green loans, although FDL also offers SME and housing loans. In addition to credits, FDL provides technical assistance to increase farmers' resilience to climate change and natural disasters, as well as insurance services. The FI has recently initiated the licensing process that will allow it to collect deposits and, eventually, public savings.

> *"FDL, which quickly positioned itself as a pioneer in the rural credit market, is today the largest MFI in the country"*

2.3 SOUTH & EAST ASIA

The South & East Asia (SEA) region is subdivided between South Asia (SAS) and East Asia & the Pacific (EAP).

Together with Latin America, Asia – in particular, South Asia – has been the historical stronghold of microfinance. In 1977, Muhammad Yunus, a Bangladeshi social businessman, created the Grameen Bank (literally the village bank), a microcredit institution that would become a pioneer for financial inclusion and whose business model would be replicated all over the world in the 1990s. Bangladesh's neighbor, India, where microfinance initially emerged through self-help groups (a system where several microentrepreneurs jointly contribute to a rolling credit fund), has become over the last decade the largest market worldwide in terms of outreach and breadth of financial inclusion, thanks to the institutionalization of the sector.

India's rise as a global leader has not been without growing pains, in particular as it was strongly hit by the microfinance crisis in Andhra Pradesh in 2010-11 (Box 2). The country's banking penetration (adults having a savings account) rose from 35% to 80% between 2011 and 2017 and has been strongly influenced by a nation-wide policy launched by Prime Minister Modi to boost account ownership, with the belief that tools such as payment transfers would help the unbanked get out of poverty. Practically, this has been done through the enactment of Small Finance Bank and Payment Bank legal statuses, which has lessened the requirements for institutions willing to offer basic financial services. In parallel, more and more of these FIs are being listed on local stock exchanges, increasing the awareness and attractiveness of microfinance for investors. Larger microfinance institutions have converted into such banks to get access to public deposits and adopt technologies such as electronic transfers. Competition has also increased materially as a result of these policies, with larger commercial banks downscaling their offer, or other entities, such as non-banking financial companies (NBFCs) and NGOs, offering new credit products and models. Technology finance companies (techfins) initially focused on technology, then mobile payments, and finally increased their offering of small short-term credit and deposit services[32].

India is of course a particular market in the region; overall South & East Asian countries active in financial inclusion had a quite diverse landscape in 2017. The portion of the population holding a savings account varies from 15% in Afghanistan to 93% in Mongolia. In Bangladesh, 21% of adults have a mobile money account, whereas this system is far less used in neighboring Myanmar (only 1%). With regards to credits, 27% of Cambodian adults borrowed at least once from a financial institution in 2017, while this dropped to 2% for Pakistanis. China and Malaysia, on the other hand, are the top providers of credit cards (21% of the population). Finally, Thailand is the country where

COUNTRIES OF SYMBIOTICS' INVESTMENTS, PAST & PRESENT

- Bangladesh
- Cambodia
- China
- East Timor
- India
- Indonesia
- Laos
- Mongolia
- Myanmar
- Pakistan
- Philippines
- Sri Lanka

32 PwC. 2017. *Microfinance in Asia: A Mosaic Future Outlook.*

government transfers are the most frequent (35% of adults received a transfer in 2017)[33].

Outside of India, the financial inclusion sector has also not necessarily witnessed an important rise in competitive behaviors. Traditional deposit-taking MFIs and cooperatives are still dominant in Bangladesh, Cambodia, Laos, Myanmar and Nepal. In Indonesia, commercial banks represent the lion's share of the sector, thanks in part to a mandate given by the government to banks in 2007 to direct at least 20% of their loan portfolio to MSMEs. In the Philippines, this role is assumed by NGOs, which are also the key advisors to the government with regards to the regulatory framework. In China, where microfinance is not legally defined, the principal enablers of financial inclusion are deposit-taking village and township banks, microcredit companies, digital financial companies, rural credit companies and NGOs. In Vietnam, the two main actors are the government-owned Vietnam Bank for Agriculture and Rural Development and Vietnam Bank for Social Policies, which are able to provide loans at below market conditions[34].

The potential of financial inclusion in SEA is by far the largest given the combined population size of the continent. According to the *Convergence Microfinance Barometer 2018*[35], the worldwide podium of microcredit champions is occupied by India, Bangladesh and Vietnam. Furthermore, the Philippines (5.8m) and Pakistan (5.7m) are those from the top 10 with the highest client growth in 2017, at 16.3% and 25.9% respectively. Policies for financial inclusion are also very conducive according to the latest Economist Intelligence Unit *Global Microscope*[36]. India is ranked fourth in the world, tied with the Philippines, which is rewarded for the creation of a secure digital finance ecosystem. At the other end of the spectrum, Myanmar (51st of the 55 countries analyzed), Cambodia (43rd), Nepal and Bangladesh (tied at 40th) lie at the bottom of the ranking for the region. In most countries, for instance, FIs still face interest rate caps on loans, with the strictest ones found in Cambodia, Nepal and Vietnam[37]. Arguably, all countries in the region are nevertheless taking steps towards a more financial inclusion-friendly environment.

33 Figures based on: World Bank. 2018. *Global Findex Database 2017*.
34 PwC. 2017. *Microfinance in Asia: A Mosaic Future Outlook*.
35 Convergences. 2018. *Microfinance Barometer 2018*.
36 Economist Intelligence Unit. 2018. *Global Microscope*.
37 PwC. 2017. *Microfinance in Asia: A Mosaic Future Outlook*.

Box 2
The Andhra Pradesh Microfinance Crisis

Following years of exponential growth, the microfinance industry in India, one of the biggest at that time went crashing in 2010 following reports of waves of suicide from over-indebted microfinance clients in the southern state of Andhra Pradesh, the epicenter of India's microfinance sector. In October 2010 after the news broke out, the State government of Andhra Pradesh quickly promulgated an emergency law requiring an immediate increased transparency from MFIs about their clients and branches while politicians advised the public to halt repayments. Non-performing loans shoot up and FIs in Andhra Pradesh saw their GLP decline by 35%.

This was a turning point in the public perception of microfinance, and threatened the future of the sector in India as well as abroad. Linked to an above average, uncontrolled growth of the sector, the crisis also brought to light coercive collection practices of loan officers and general excessive interest rates the sector was facing. Government intervention was reactive which helped the sector bounce back by 2017/2018. Regulations from the Central Bank have been tighter since 2011, including interest-rate ceilings as well as the creation of two credit bureaus conditioned to a maximum of two loans per client. The International Finance Corporation (IFC) and the Smart Campaign also brought key efforts in terms of capacity building and pushing FIs to follow and endorse the industry's client protection principles.

From the perspective of foreign investors, SEA is a region that may attract significant volumes. India and Cambodia are the top two MIV investment countries[38], but the map remains quite diverse for FDI as well, with many countries posing a range of constraints on foreign investors. As a result, FIs in the region are more inclined overall to source local funding. In India, the principal funders of MFIs are local banks and a large number of 2nd tier NBFCs; MIVs face several restrictions linked to the status of the borrower and of the investor. In Sri Lanka, inclusive finance banks depend on the central bank for foreign borrowing authorizations and most NBFIs fund themselves directly from local deposits; MFIs that cannot still lack a good enabling environment to attract capital. Mongolia and Cambodia have been the most FDI-friendly countries for MIVs, logically growing to the highest exposures of their portfolios and becoming predominant funders domestically. However, they are sometimes viewed as threatening to overheat local markets. Myanmar, on the other hand, just opened up recently to foreign investors and offers a large investment potential in the near to mid term. China has remained very

38 Symbiotics. 2018. *Symbiotics 2018 MIV Survey.*

low in MIV portfolios, with complex regulatory frameworks and high domestic liquidity supplies, including from new peer-to-peer (P2P) lending models. In Indonesia and the Philippines, moderate MIV exposures are explained by a blend of cheaper local funding, lower growth and some policy incentives and frameworks.

Symbiotics made its first investment in the region in 2006 in Cambodia. It forms today the second exposure of our portfolios, which has grown by 48% per annum since 2008. At the end of 2017, the company had invested nearly USD 1 billion, financing 71 financial institutions – mostly NBFIs and banks – in 12 different countries. As in other regions, the partner landscape evolved from tier 2 and 3 to tier 1 and 1+, including many institutions graduating from tier to tier over the period (Table 8).

Table 8
Key Statistics – South & East Asia

	Origination (USD M)	No. of FIs	No. of Countries
EAP	622	37	8
SAS	359	34	4
Total	**981**	**71**	**12**

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Number of FIs by sub-region												
EAP	3	6	9	9	12	14	17	17	17	20	23	30
SAS	0	1	1	1	1	1	1	3	7	13	19	29
Number of FIs by type												
Bank	2	2	2	2	2	1	2	3	4	7	8	12
Cooperative	0	0	0	0	0	0	1	1	1	1	1	1
NBFI	1	4	8	8	10	12	13	15	19	25	33	45
NGO	0	1	0	0	1	2	2	1	0	0	0	1
Number of FIs by size												
Tier 1+	0	0	0	0	1	0	0	0	1	3	3	6
Tier 1	1	1	1	2	2	4	6	8	15	17	25	31
Tier 2	1	5	9	8	9	10	11	10	7	11	10	19
Tier 3	1	1	0	0	1	1	1	2	1	2	4	3
Total	**3**	**7**	**10**	**10**	**13**	**15**	**18**	**20**	**24**	**33**	**42**	**59**

INSTITUTIONAL PROFILE
HATTHA KAKSEKAR

In 1994, OXFAM Quebec launched a food security project providing microloans in the rural province of Pursat. The project became a registered NGO two years later under the name Hattha Kaksekar (literally, a helping hand for farmers in Khmer). While maintaining its focus on rural clients, the company witnessed constant growth and transformed into an MFI in 2003 and obtained its Deposit Taking Institution license in 2010. It was finally purchased in 2016 by Bank of Ayudhya, the 5th largest bank in Thailand, itself 77% owned by Mitsubishi Bank, the largest bank in Japan. Hattha is now the 3rd largest MFI in the country, with over USD 800 million in total assets as of July 2018.

Despite originally focusing on agriculture and as a result of a challenging agricultural environment, Hattha made diversification efforts and its management imposed a 25% cap on the sector. Microenterprise loans remain the main type of product, but the SME and housing portfolios are growing fast, with product offerings ranging from loans for land to home improvement. The MFI has a large network of ATMs across the country and offers non-traditional services such as mobile banking, microinsurance or payroll services. The acquisition of Hattha by a commercial bank results from an expansion plan that will translate into new products; and the potential transformation into a bank is under evaluation.

Impacted by these evolutions, the average loan balance has increased from USD 520 in 2006 to USD 4,700 in 2017; but the MFI has maintained a focus on women borrowers, who still represent two-thirds of the client base. The Smart Campaign certified Hattha in client protection in June 2016.

Hattha's journey since 1994 has culminated in National Bank of Cambodia approval to issue the first-ever corporate bond in the country, in August 2018. This milestone will enable the company to diversify its sources of funding and access growth capital in its domestic market. From the perspective of a foreign investor like Symbiotics, this is a success story in itself as our mission is foremost to act as a catalyst of growth and financial robustness for our partner FIs.

"Hattha's journey has culminated in an approval from the NBC to issue the first ever corporate bond in the country"

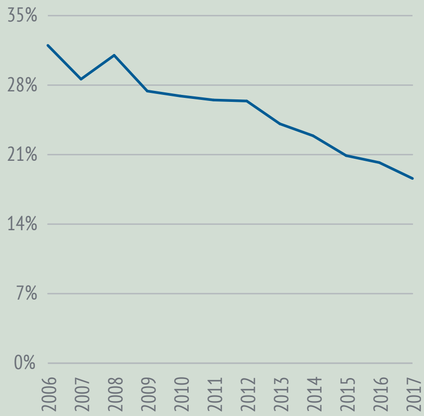
KEY FACTS

CAMBODIA

Incorporation year	1996
Type	NBFI
Size in Dec 06	Tier 3
Size in Dec 17	Tier 2
TA growth	53% p.a

Decreasing Interest Rates

Portfolio Yield



Credit Products (% of GLP)

Year	MSME	Other
2006	100%	0%
2017	52%	48%

Credit/Savings Profile (USD)

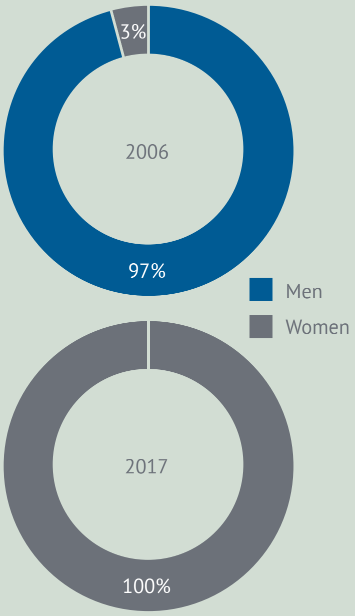
Year	Av. Loan Balance	Av. Deposit Balance
2006	518	18
2017	4,667	1,853

KEY FACTS

INDIA

Incorporation year	1990
Type	NBFI
Size in Dec 12	Tier 3
Size in Dec 17	Tier 1
TA growth	61% p.a

Gender Outreach
(% of borrowers)



Credit Products (% of GLP)

Year	MSME	Other
2006	100%	0%
2017	100%	0%

Credit/Savings Profile (USD)

Year	Av. Loan Balance	Av. Deposit Balance
2006	248	40
2017	242	No deposits

INSTITUTIONAL PROFILE SATIN CREDITCARE

Satin Creditcare was created in 1990 under the name Satin Leasing and Finance Pvt Ltd to provide microcredit to shopkeepers and petty traders operating in Delhi's markets. The company grew (registered as an NBFC in 1998 and converted into an NBFC-MFI in 2013) and began to reach semi-urban and rural areas too, while still focusing on the micro sector. Satin Creditcare, headquartered in Delhi, is now present in 20 states (with its highest exposure in Uttar Pradesh, India's most populated and poorest state) through a network of 838 branches and 8,000 employees. It is listed on the Delhi, Jaipur, Ludhiana and National Stock Exchanges. It is India's second-largest microfinance company in terms of gross loan portfolio (GLP).

The MFI has historically focused on providing collateral-free loans (USD 250 average loan balance) to microentrepreneurs. The latter indeed still represent 98% of Satin's GLP. However, the surge in non-repayment rates that happened with India's demonetization pushed the company to diversify its product offering. SME loans have been available since 2016 and a new subsidiary, Satin Housing Finance, was established in 2017 with the aim of entering the housing market. The company provides thematic loans such as solar lamps, water connections and sanitation facility financing. Finally, financial literacy training has been offered since 2016.

Satin's clientele is almost entirely made up of economically active women. Financial assistance is exclusively provided through group loans, which come with compulsory training for the clients. The company has been certified by the SMART campaign since 2016, as well as by M-CRIL (B+, 2017) and the ICRA Code of Conduct.

> *"The company presently provides thematic loans like solar lamps, water connections and sanitation facilities financings"*

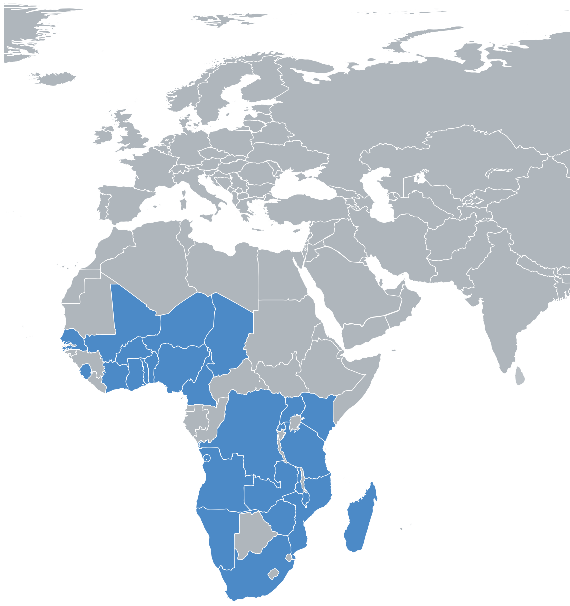
PAPERLINE
BLC
Brilliant Laser Copy
A4
80 GSM
BLC
Brilliant Laser Copy
A4
80 GSM
BLC

2.4 SUB-SAHARAN AFRICA

In terms of financial inclusion, as in many other fields, the 48 countries from sub-Saharan Africa (SSA) as classified by the World Bank present considerable disparities. The World Bank's latest Findex study finds that 30% of adults in SSA hold an account at a bank or at another type of financial institution, such as a credit union, MFIs, credit cooperatives or postal banks. This number drops to 9% in South Sudan and Chad, 10% in Madagascar and Niger, 12% in Sierra Leone, 14% in Central African Republic, and 15% in Côte d'Ivoire, Democratic Republic of Congo (DRC) and Guinea. Those are the nine counties worldwide with the lowest access to formal financial services. On the other end, Mauritius (89%), Namibia (77%) and South Africa (67%) happen to have degrees of financial inclusiveness that compare to those of other regions[39].

Confronted with this restricted access to financial institutions, sub-Saharan Africa has become the global leader in mobile money services. By 2017, 24% of adults held an account with a mobile network operator (MNO), which enables them to store, send and receive money using their phone. This figure, which is constantly increasing, reaches an astonishing 73% in Kenya, followed by Uganda (51%), Zimbabwe (49%), Gabon (44%), Namibia (43%), Ghana (39%), Tanzania (39%), Côte d'Ivoire (34%), Burkina Faso (33%) and Senegal (32%)[40]. In fact, those are the 10 countries in the world with the highest share of mobile money services users. While such services emerged in East Africa, they were quickly adopted in the continent's other sub-regions because of their cheap and practical use. Interestingly, financial services provided through mobile technology seem to be less discriminating for women and rural inhabitants than those stemming from traditional institutions.

With regards to the different types of FIs, by the end of 2016, 32% of globally identified credit unions and other financial cooperatives (or 21,724 entities out of a total of 68,882) were located in sub-Saharan Africa according to the World Council of Credit Unions (WCCU)[41]. These financial institutions thus represent key enablers of financial inclusion in the region. The region is also characterized by a broad diversity of banks. The main ones are savings banks, rural banks, microfinance banks, special purpose MSME banks and traditional commercial banks that downscale. Credit-only NGOs (frequently affiliates of international NGOs) have also assumed a primary role in the region since the 1980s. A number of these NGOs have over time transformed into NBFIs, a legal form that often allows them to mobilize deposits under some regulatory constraints. Also, some private companies whose core business is not related to lending, such as MNOs and supermarket chains, offer some financial products and services that can be classified as microfinance. In more remote rural



COUNTRIES OF SYMBIOTICS' INVESTMENTS, PAST & PRESENT

- Angola
- Benin
- Burkina Faso
- Cameroon
- Chad
- Cote D'Ivoire (Ivory Coast)
- Democratic Republic of Congo
- Ghana
- Kenya
- Madagascar
- Malawi
- Mali
- Mauritius
- Mozambique
- Namibia
- Niger
- Nigeria
- Rwanda
- Senegal
- Sierra Leone
- South Africa
- Tanzania
- Togo
- Uganda
- Zambia
- Zimbabwe

39 Figures based on: World Bank. 2018. *Global Findex Database 2017*.
40 Figures based on: World Bank. 2018. *Global Findex Database 2017*.
41 World Council of Credit Unions. 2016. *2016 Statistical Report*.

areas (where 61% of the population lives), rural banks, NGOs and community-managed loan funds (also referred to as village savings and loans associations) attend to local needs. Yet often the only remaining alternative is to rely on unlicensed and unregistered agents who practice outrageously high interest rates in a context of inexistent consumer protection.

In terms of sub-regional specificities, credit unions have been traditionally dominant in West and East Africa (under federations of cooperatives in Francophone countries and savings and credit cooperatives (SACCOs) in Anglophone ones), while in Southern Africa, banks are leading the industry. Also, in general, NBFIs have been expanding their market share at a fast pace in all regions over the last few years, offering both more modern and more flexible models and features.

Five SSA countries (Nigeria, Ethiopia, DRC, South Africa and Tanzania) have more than 50 million inhabitants, while a further 10 have more than 20 million inhabitants. In 2017, population growth in the region reached 2.7%, which is typical of the past and coming decade. It is the highest in the world and twice the global average of 1.2%[42]. Therefore, demand for microfinance products and services is expected to remain strong. However, the capacity to supply such services largely depends on a blend of regulatory, infrastructure, macroeconomic, funding and institution-building elements. In this respect, leading microfinance markets are found in Eastern Africa, with some emerging ones in West Africa, while Central Africa is the least developed region. As of today, the countries with policy environments that best enable financial inclusion[43] are Rwanda and South Africa (tied at 11th overall), Tanzania (14th) and Nigeria (19th). The East Africa region is particularly advanced in terms of electronic payments and mobile money regulations, which has led to the emergence of fintech start-up hubs. Sierra Leone (55th out of the 55 countries analyzed), DRC and Chad (tied at 53rd), Uganda (48th), Madagascar (47nd), and Ethiopia (43rd) are at the bottom of the EIU ranking. Often cited potential improvements include: increasing financial literacy levels and investments in connectivity infrastructure, more flexible products for the lowest income segment, better deposit insurance schemes and consumer protection frameworks, as well as the removal of restrictive interest rate caps.

42 World Bank. 2018. *World Development Indicators*.

43 Ranking from the Economist Intelligence United (EIU). 2018. *Global Microscope*.

Financial inclusion in SSA has historically been characterized by a uniquely high proportion of savers to borrowers. Africa is the birthplace of *tontines*, which some associate as being the ancestor of microcredit. These informal credit and savings associations organized within neighborhoods have historically played a role in the region's savings culture. According to the 2017 *Microfinance Barometer*[44], deposits represent 71% of funding for SSA FIs (driven by cooperatives and credit unions), while the global average is 57%. Equity (17%) and debt (11%) are thus proportionally less used than in other regions.

For Symbiotics, the journey in SSA began in 2009 with a first loan in Kenya. A year later, Symbiotics was appointed fund manager of the Regional MSME Investment Fund for SSA (REGMIFA), a public-private partnership syndicating a dozen development banks aimed at financing the growth of local MSMEs through financial intermediaries. Symbiotics grew to become the largest foreign investor in microfinance in SSA through this fund and others. In 2017, our exposure to the region was twice as high as the average (15% vs 8%)[45]; since inception, we have originated USD 520 million in investments, financing 83 financial institutions in 26 different countries (Table 9).

Our universe of partner FIs has mainly evolved around NBFIs and banks that require comparatively more financial support from MIVs than cooperatives/credit unions, for instance. In recent years, with the development and maturation of the markets in SSA, Symbiotics has witnessed both an increase in funding demand from FIs and an increase in activity from MIVs and DFIs. Local financing, which enables FIs to mitigate their foreign exchange (FX) risk and the ongoing challenges of withholding taxes in certain markets, has also been increasing. That said, the local currency funding support of MIVs like REGMIFA continues to play a pivotal role in demonstrating to local banks that FIs are reliable credit risks.

44 Convergences. 2017. *Microfinance Barometer 2017*.

45 Symbiotics. 2018. *Symbiotics 2018 MIV Survey.*

Table 9
Key Statistics – Sub-Saharan Africa

	Origination (USD M)	No. of FIs	No. of Countries
SSA	520	83	26

Number of FIs	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	**0**	**0**	**0**	**1**	**9**	**20**	**28**	**38**	**53**	**53**	**57**	**59**
Number of FIs by type												
Bank	0	0	0	1	4	6	7	9	13	14	15	17
Cooperative	0	0	0	0	1	1	2	3	3	3	2	1
NBFI	0	0	0	0	4	10	15	22	32	33	38	38
NGO	0	0	0	0	0	3	4	4	5	3	2	3
Number of FIs by size												
Tier 1+	0	0	0	0	0	0	0	0	0	0	2	3
Tier 1	0	0	0	1	1	1	2	2	3	5	7	8
Tier 2	0	0	0	0	7	15	21	28	36	37	37	39
Tier 3	0	0	0	0	1	4	5	8	14	11	11	9
Total	**0**	**0**	**0**	**1**	**9**	**20**	**28**	**38**	**53**	**53**	**57**	**59**

INSTITUTIONAL PROFILE
FAULU

Faulu, meaning 'succeed' in Swahili, was created in 1991 by Food for the Hungry International as a program providing credits to microentrepreneurs and low-income households in Mathare, which hosts Kenya's biggest slums. Because of the economic viability of its business model, and to get access to more funding, it transformed first into an NGO in 1994 and then into a private limited company in 1999. Ten years later, it became the first Kenyan MFI to receive a deposit-taking license. It is today the second biggest microfinance bank in the country in terms of outreach.

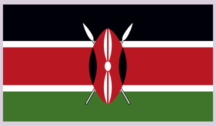
Faulu offers basic deposit and credit services, as well as a broad range of insurance products and investment solutions. The deposit-taking license has enabled the company to grow its gross loan portfolio (GLP) considerably. By December 2017, savings and deposits funded 65% of loans. Most of its credits (58%) are payroll loans to civil servants used for immediate household consumption, followed by SMEs (19%) and microentrepreneurs (15%) that want to launch or expand their business.

Its wide geographical coverage (42% of its clients are located in rural areas) is one of its main strengths, allowing Faulu to remain a key market player while facing strong competition. Moreover, recognizing mobile banking's potential to include the poorest segments of the population, Faulu has integrated this technology into its product offering. For instance, in addition to accessing their account anywhere via SMS or using the Faulu mobile app, Faulu's clients can use M-Pesa, the most popular mobile payment operator in Kenya, to deposit money into it.

As recently confirmed by the World Bank, the interest rate caps introduced in 2016 have led to a significant drop in aggregate lending, a higher proportion of non-performing loans, and a change in credit composition away from SMEs and toward safer corporate clients. The government has reconsidered its position and potential changes to the rate cap could be finalized in Q4-2018, as access to financial services still represents the major obstacle for Kenyan MSMEs.

> *"Faulu became the first Kenyan MFI to receive a deposit-taking licence and is today one of the country's leading microfinance banks"*

KEY FACTS

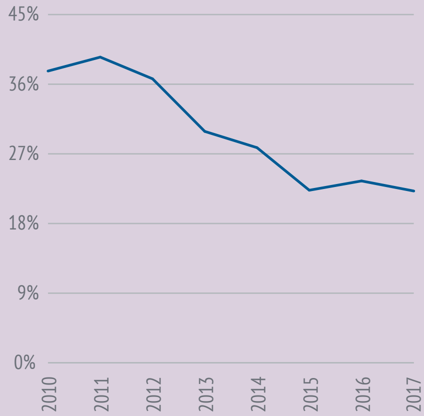


KENYA

Incorporation year	1991
Type	Bank
Size in Dec 06	Tier 2
Size in Dec 17	Tier 1
TA growth	28% p.a

Decreasing Interest Rates

Portfolio Yield



Credit Products (% of GLP)

Year	MSME	Other
2010	89%	11%
2017	33%	67%

Credit/Savings Profile (USD)

Year	Av. Loan Balance	Av. Deposit Balance
2010	252	29
2017	4,091	1,062

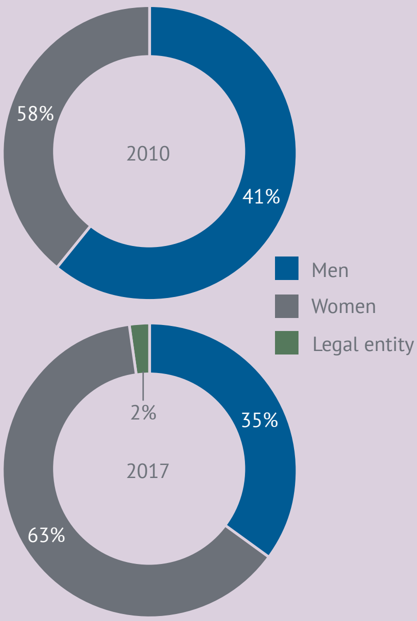
AB Microfinance Bank
NIGERIA

KEY FACTS

NIGERIA

Incorporation year	2008
Type	Bank
Size in Dec 12	Tier 2
Size in Dec 17	Tier 1
TA growth	28% p.a

Gender Outreach (% of borrowers)



Credit Products (% of GLP)

Year	MSME	Other
2010	98%	2%
2017	99%	1%

Credit/Savings Profile (USD)

Year	Av. Loan Balance	Av. Deposit Balance
2010	449	57
2017	752	22

INSTITUTIONAL PROFILE AB MICROFINANCE BANK

AB Microfinance Bank Nigeria (ABN) was incorporated as a limited liability company in 2008 and received the Lagos state license the same year. It has been regulated by the Central Bank of Nigeria as a full-fledged microfinance bank since 2013. By the end of 2017, it had more than 35,000 active borrowers across the states of Lagos, Oyo and Ogun.

ABN's clientele is almost exclusively composed of urban microentrepreneurs (60%) and small enterprises (39%). The vast majority of clients are active in trade (83%), mostly linked to agricultural products (such as corn, millet, peanuts, rice, taro and yams). Not that long ago, most of the production was exported by large companies; however, Nigeria has recently experienced a consumer boom, which has increased local demand and MSME activity. Also, a growing number of businesses are specializing in services (12%) in accordance with the development of the telecommunication sector.

In fact, ABN was the first Nigerian bank to offer a free mobile banking service to its clients: myABmobile offers a broad range of services such as opening an account, transfers, bill payments, loan repayment reminders, airtime purchases and balance enquiries. ABN also provides its business clients with portable devices (myAB-POS), facilitating transactions with debit and credit cards.

As the national population is more than 190 million and as 60% of adults held no account at an FI by the end of 2017[46], ABN intends to serve unmet demand and become a leading enabler of financial inclusion. Moreover, the bank strives to empower active poor women, who, although driving the economy, are often excluded from upper scale financial institutions.

> *"myABmobile offers a broad range of services such as account opening, transfers, bill payments, loan repayment reminders, airtime purchases and balance enquiries"*

46 World Bank Group. 2018. *Global Findex Database 2017.*

3. CLIENTS

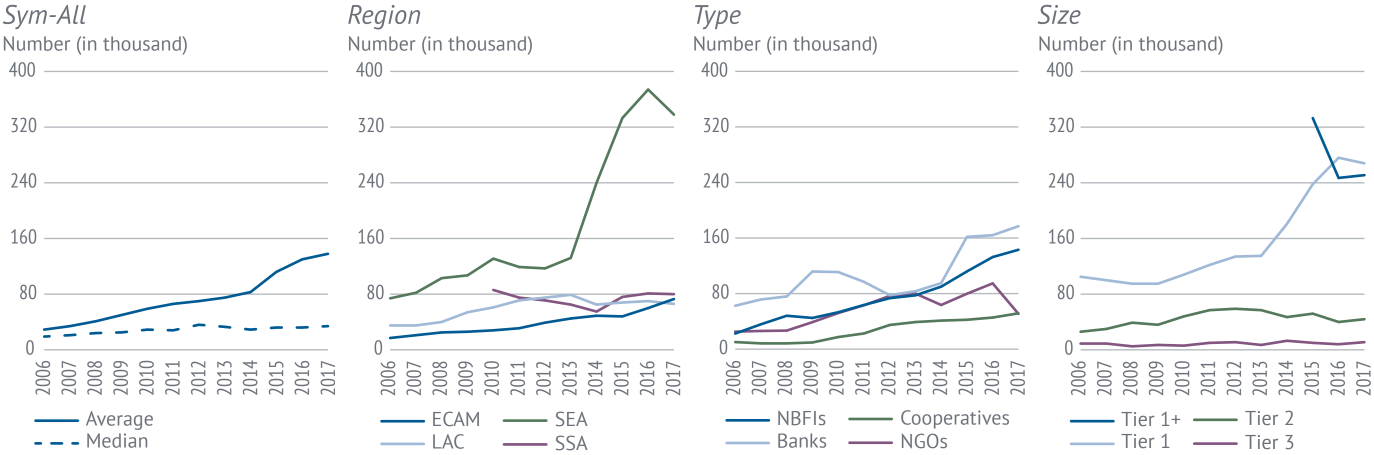
This section reviews the types of clients in the sample of financial institutions and the products and services offered to these clients as the FIs deliver economic inclusion and social added value in their domestic markets. We start with a focus on borrowers, their number, their borrowings, their gender, activity and location. We also include depositors, reviewing as well their number and average balance with FIs in the sample. We finally review information on credit, non-credit and non-financials products offered to such clients.

3.1 BORROWERS

BREADTH OF OUTREACH (NUMBER OF BORROWERS)

FI outreach measured in terms of number of borrowers has steadily increased since 2006, at a pace of 15% per year. At the end of 2017, the typical sample FI had on average 138,000 active borrowers. The exponential growth in borrowers in 2015 and beyond coincides with the increased presence of Symbiotics in South Asia, a region generally characterized by large numbers of active borrowers (Figure 4). At the median level, trends are very stable over the years, with growth in active borrowers only reaching 5% per annum since 2006. The increased presence of tier 1 institutions in the sample naturally impacts overall outreach as their size enables them to serve more clients, whereas the outreach of tier 2 and 3 institutions is more constrained. Their number of active borrowers has fluctuated between 25,000 and 59,000 for tier 2 and 5,000 to 13,000 for tier 3 depending on the year. In terms of institution type, banks serve more clients on average, followed by NBFIs and NGOs. Cooperatives have historically been the ones with the lowest number of active borrowers.

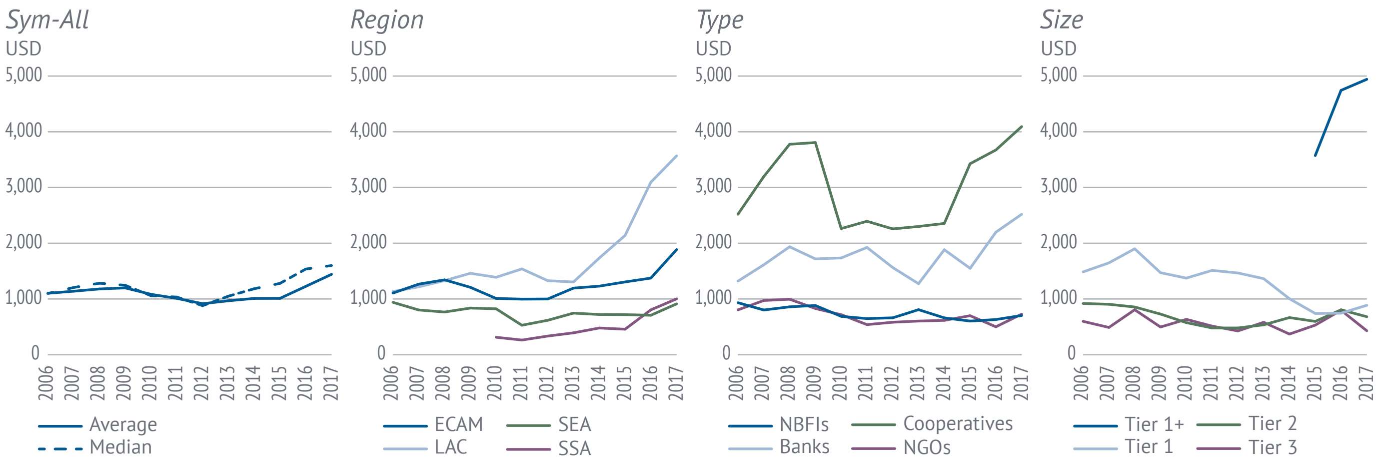
Figure 4
Active Borrowers



DEPTH OF OUTREACH (AVERAGE LOAN BALANCE)

The outstanding loan balance at year end was stable during the review period (Figure 5) for both the average and median despite an upward trend in later years. For the full sample, the average loan balance has varied between USD 915 and USD 1,440, with differences across the years. Such low credit amounts validate the financial institutions' attachment to their mission of facilitating access to finance for an underserved segment of the population. Regional trends indicate higher loan amounts in LAC, driven by the region's large cooperatives that have fewer borrowers than savers and, as such, have higher credit balances. Also, LAC is home to FIs with an SME-focused agenda where this type of clientele typically requires above-average loan amounts to sustain and grow their businesses. In other regions, loan balances have been quite stable, with a peak in ECAM in 2017 with the addition of tier 1 and tier 1+ FIs in the portfolio that are able to facilitate larger credit volumes. Typically, large MFIs in SEA and SSA are in the lower spectrum of the loan balance, generally under the USD 1,000 mark. This is also the case overall for NBFIs, NGOs, tier 2 and tier 3 institutions.

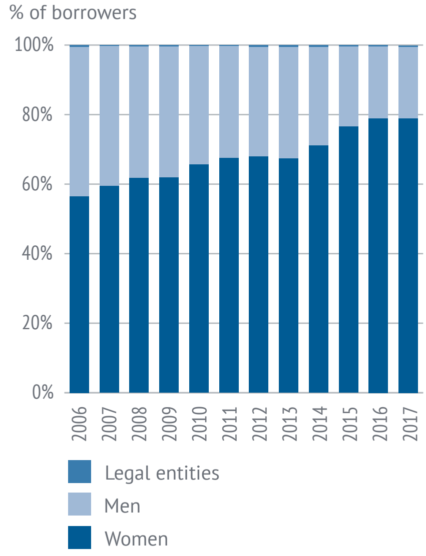
Figure 5
Average Loan Balance



GENDER

Women borrowers have historically composed the main clientele base of our FIs. The women borrower ratio has been increasing in recent years, reaching nearly 80% at the end of the review period (2017: Figure 6). This gender specificity has been further enhanced from 2015 onwards thanks to the addition of South Asian FIs in our portfolio. This is a region where FIs, in particular of the NBFI-type are characterized by a very high proportion of women borrowers. This trend is well translated when segmenting the analysis by region, with the SEA sample showing an above average proportion of women borrowers. SSA is also home to FIs with more women borrowers, at 80% approximately, with variances between the years. The other two regions have a more balanced gender mix. In terms of FI size, all tiers account for a higher proportion of women borrowers, with tier 2 FIs having the most stable historical trend, with an average above 70%. Outreach toward women is highest and has rapidly increased within the NBFI pool over the period. For other types of FIs, women represented at least two-thirds of borrowers by 2017.

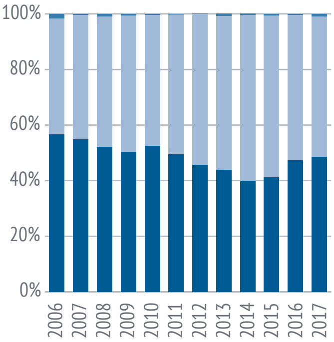
Figure 6
Borrowers' Gender
Sym-All



Region

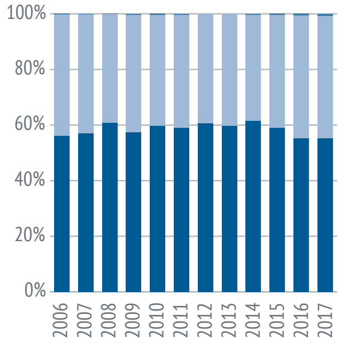
ECAM

% of borrowers



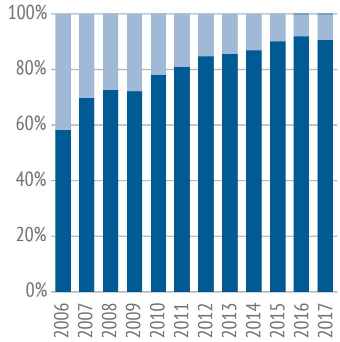
LAC

% of borrowers



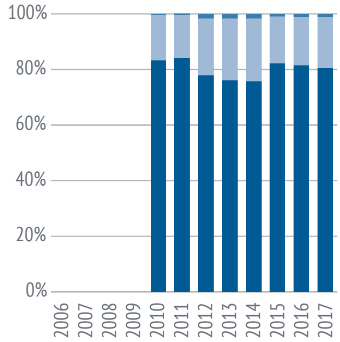
SEA

% of borrowers



SSA

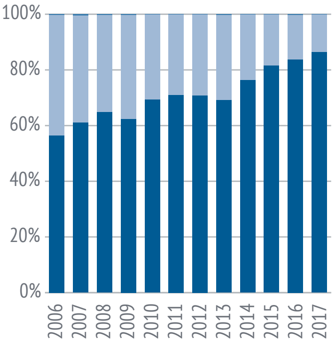
% of borrowers



Type

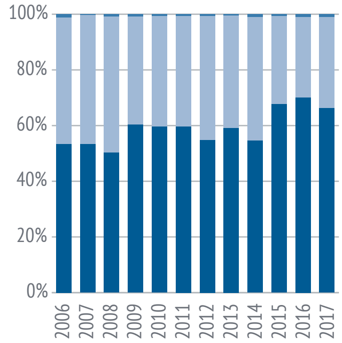
NBFIs

% of borrowers



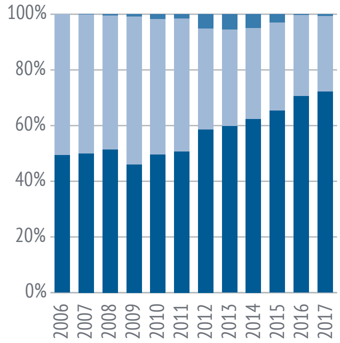
Banks

% of borrowers



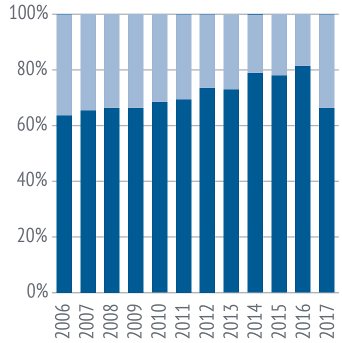
Cooperatives

% of borrowers



NGOs

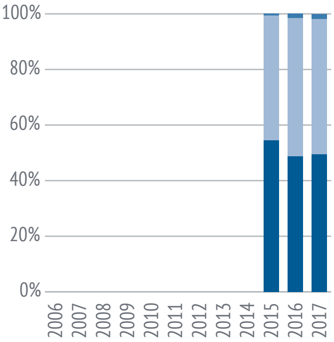
% of borrowers



Size

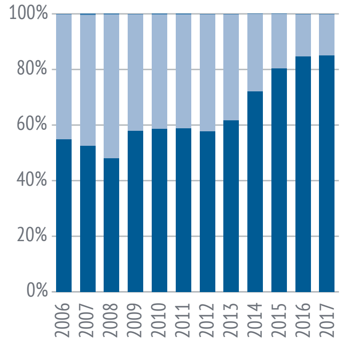
Tier 1+

% of borrowers



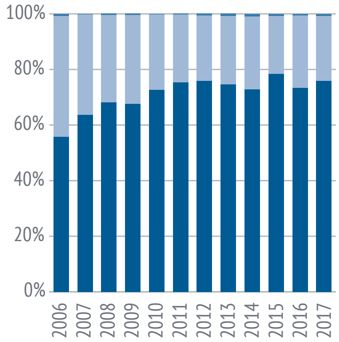
Tier 1

% of borrowers



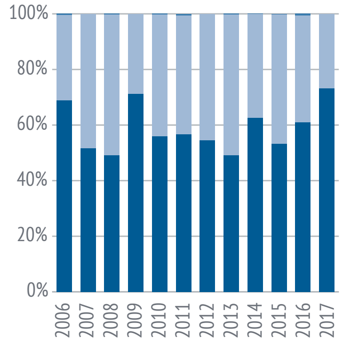
Tier 2

% of borrowers



Tier 3

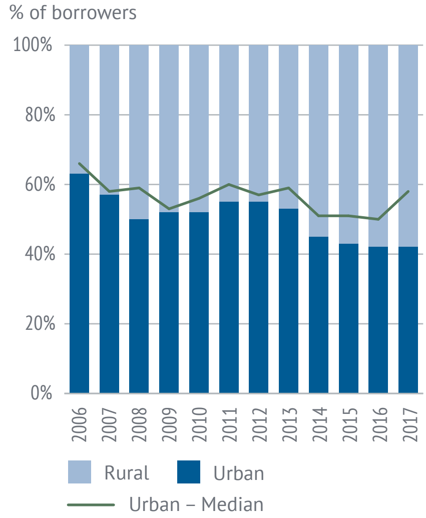
% of borrowers



LOCATION

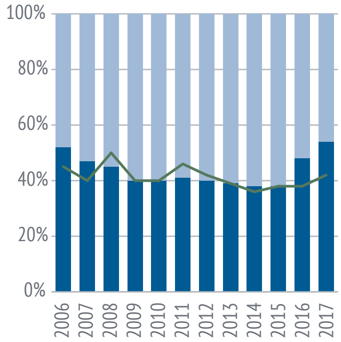
Urban-based clients formed the major portion of active borrowers, at 55% over the 2006-2013 period. Since 2014, the trend has shifted in favor of rural clients, who form today 58% of all borrowers in terms of the weighted average. This shift coincides with Symbiotics' increasing exposure in South Asia, namely India where FIs are characterized by a large number of borrowers who run rural businesses. The region-focused chart on SEA clearly shows this demarcation compared to other regions. In Africa, the share of rural borrowers has been increasing linearly since 2014, a phenomenon that is not only observed within our portfolio of investees but also more broadly in the region, especially in East Africa where rural outreach is benefitting from the emergence of mobile financial services. In LAC, FIs have more urban end-clients, while the proportion is more balanced in ECAM. Regarding FI types, cooperatives have expanded their rural outreach considerably over the last years, increasing from 17% in 2011 to 71% in 2017, close to the NGO average (73%). On the other hand, urban borrowers represent more than 77% of clientele for the median of banks. More generally, the median values indicate a higher proportion of urban borrowers for the total sample (Figure 7).

Figure 7
Clientele Location
Sym-All

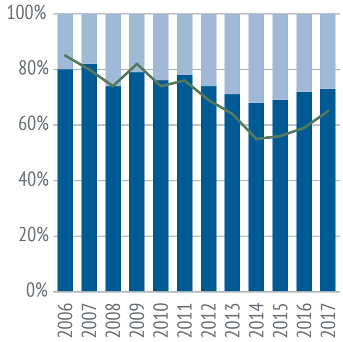


Region

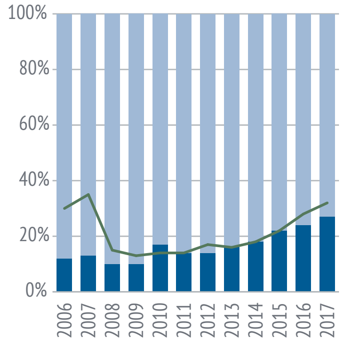
ECAM
% of borrowers



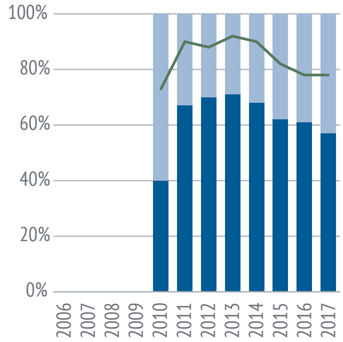
LAC
% of borrowers



SEA
% of borrowers

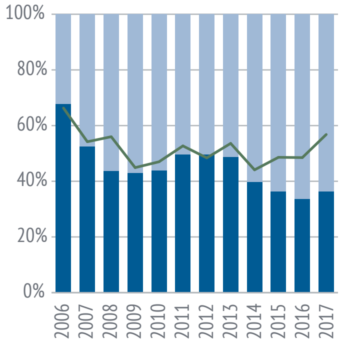


SSA
% of borrowers

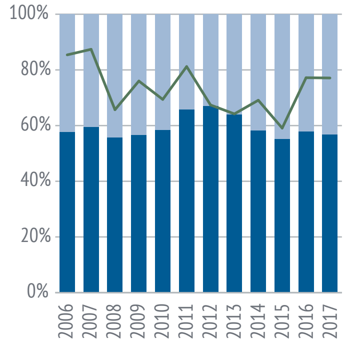


Type

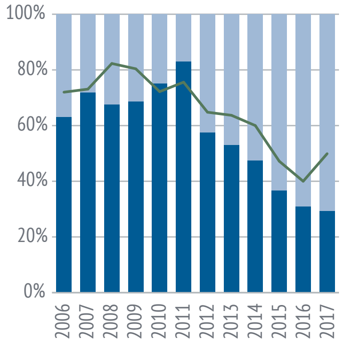
NBFIs
% of borrowers



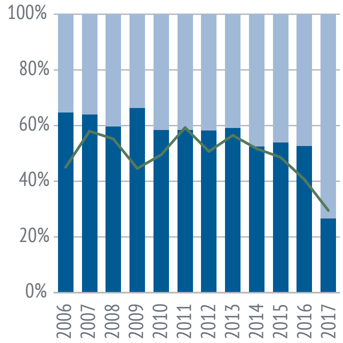
Banks
% of borrowers



Cooperatives
% of borrowers

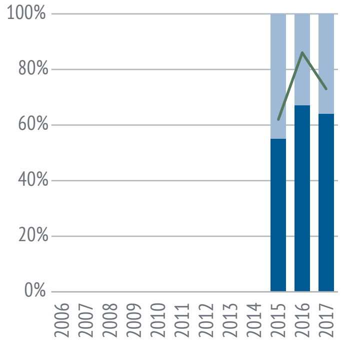


NGOs
% of borrowers

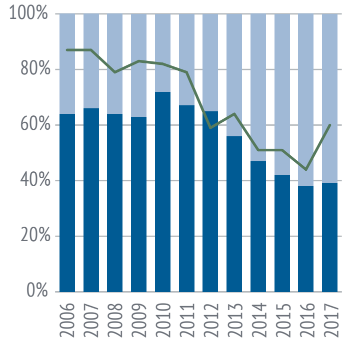


Size

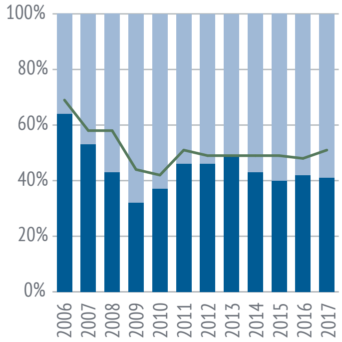
Tier 1+
% of borrowers



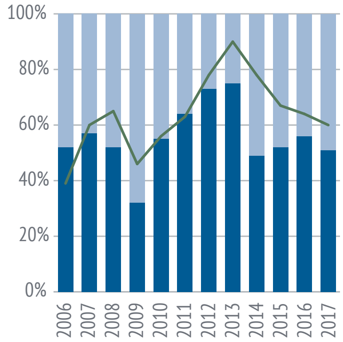
Tier 1
% of borrowers



Tier 2
% of borrowers



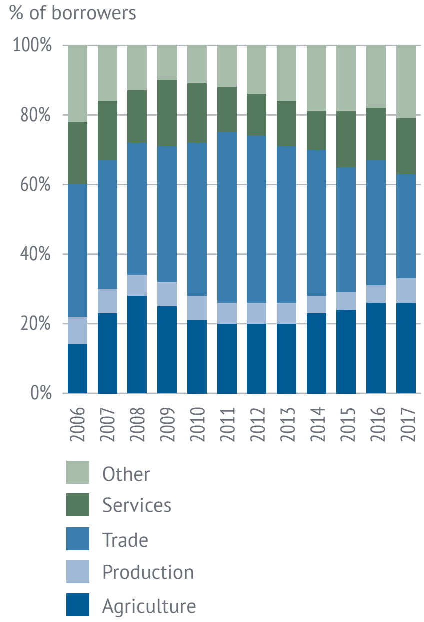
Tier 3
% of borrowers



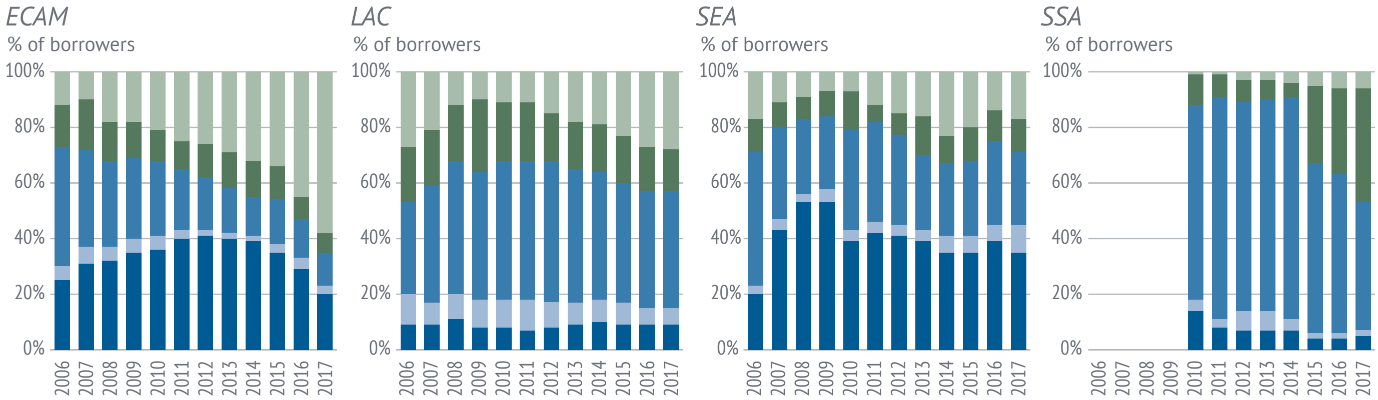
ACTIVITY

Looking at borrowers' sector of activity, Figure 8 shows that most FI clients have been involved in trade, at nearly 40% on average depending on the year. Trends for the full sample have been fairly stable, with more trade clients in the middle years. However, differences among regions are observable, with ECAM clearly increasing its 'other' bucket, which includes activities related to transportation, construction, housing or renewable energy, among others. Also, borrowers from African FIs have been increasingly involved in the services sector since 2014. All four FI types show a balanced mix of client activities, except for NGOs, which generally have more than half of their clients in trade. Similarly, in terms of FI tiers, tier 2 and tier 3 institutions have more small traders compared to tier 1 FIs.

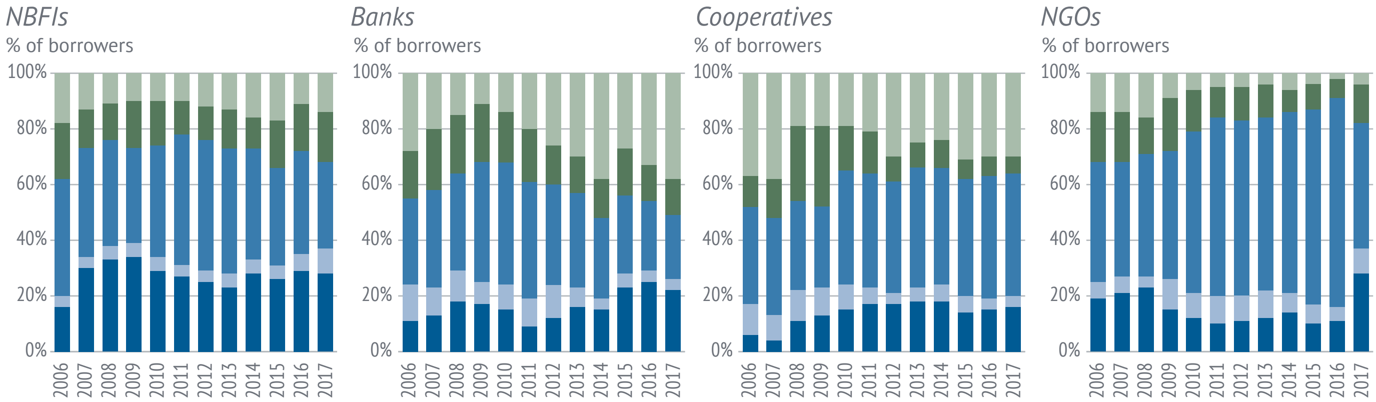
Figure 8
Sector of Activity
Sym-All



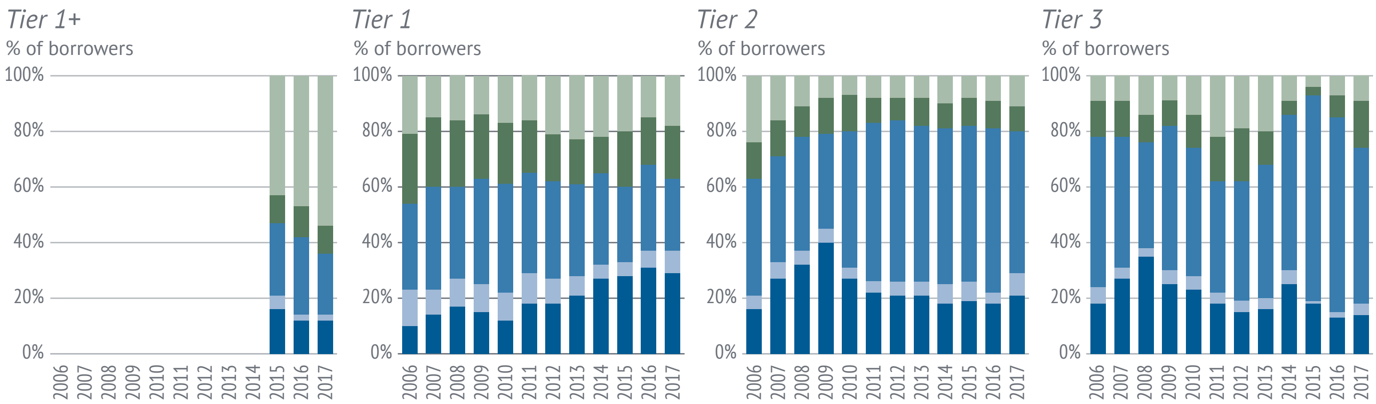
Region



Type



Size

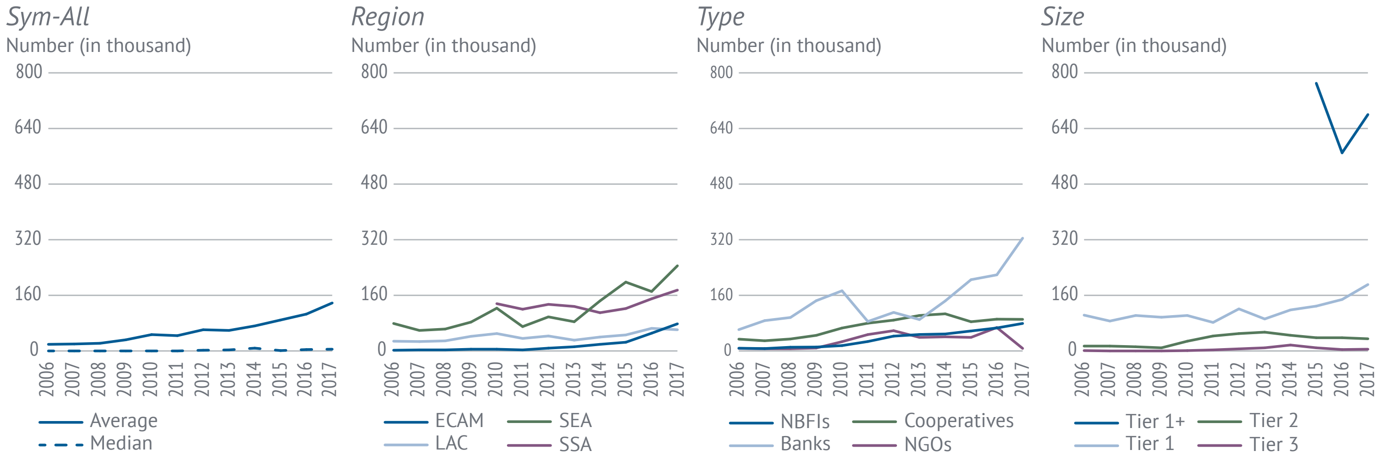


3.2 DEPOSITORS

DEPOSITOR OUTREACH

Similar to the observations for the number of active borrowers, the number of active depositors per FI has also been trending upward since 2006 (Figure 9). The compound annual growth rate (CAGR) of average active depositors reached 20% per annum, led by fast growth in the 2014-2017 period during which more banks (tier 1 or tier 1+) were added to the Symbiotics portfolio. These FIs source most of their capital through savings, contrary to a certain group of NBFIs and all NGOs which do not have deposit-taking licenses under the usual regulatory frameworks. The median, which remained at zero from 2006 to 2011, stands at 4,835 today. In terms of regions, SEA leads the pack, while FIs in SSA have a high number of active depositors compared to LAC or ECAM. This is because most FIs in Africa, including NBFIs and NGOs, are regulated entities that can mobilize deposits. They rely heavily on deposits to fund growth. Most of the time, their microfinance focus comes from the need of the poor to get access to affordable savings. Through their legal form and funding structure, cooperatives across all regions enjoy a higher quantitative outreach to depositors (usually members) than to active borrowers as seen previously.

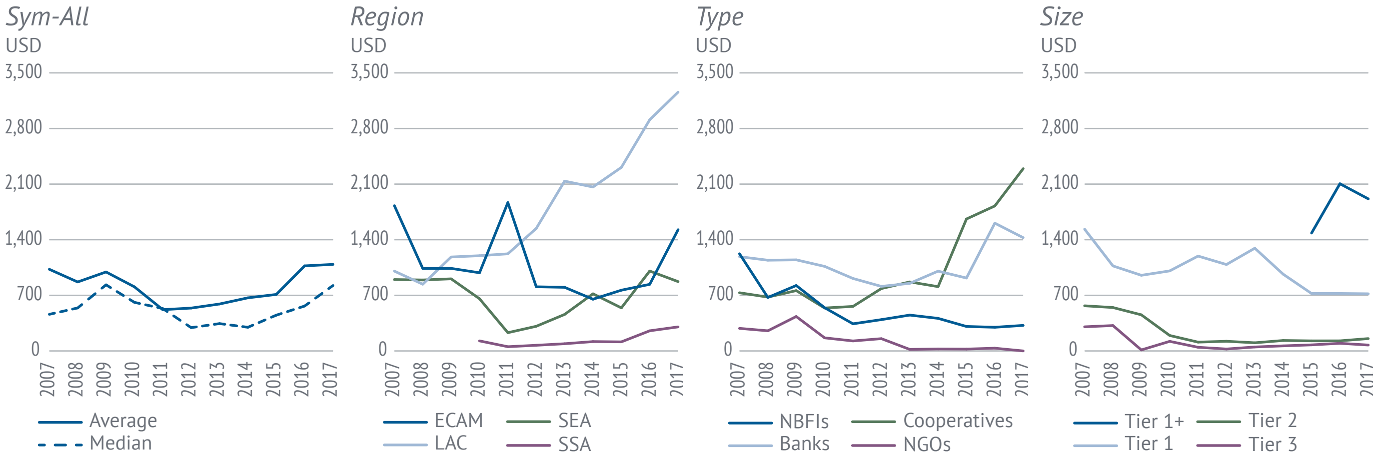
Figure 9
Active Depositors



AVERAGE DEPOSIT BALANCE

The average deposit size stands between USD 520 and USD 1,090 per depositor, with variances across years, regions and types of institutions (Figure 10). Africa has, interestingly, the smallest deposit sizes of all the regions despite being home to more depositors than borrowers (Figure 11). This implies very low savings amounts per client in SSA, a region where tontines have built a lasting savings culture. LAC, with a lot of savings cooperatives and large banks, has witnessed an upward trend in deposit size since 2011, while ECAM has been more volatile over the years but remains under the USD 2,000 mark. Cooperatives have seen the greatest growth, with average deposits more than four times higher in 2017 compared to 2011. NGO savings balances logically remain close to zero due to a lack of deposit-taking licenses, while NBFIs have seen a strong decreasing trend since 2007. Savings values have also been low and decreasing for tier 2 and tier 3 FIs, which similarly do not base the bulk of their funding strategy on such liabilities and clientele.

Figure 10
Average Deposit Balance

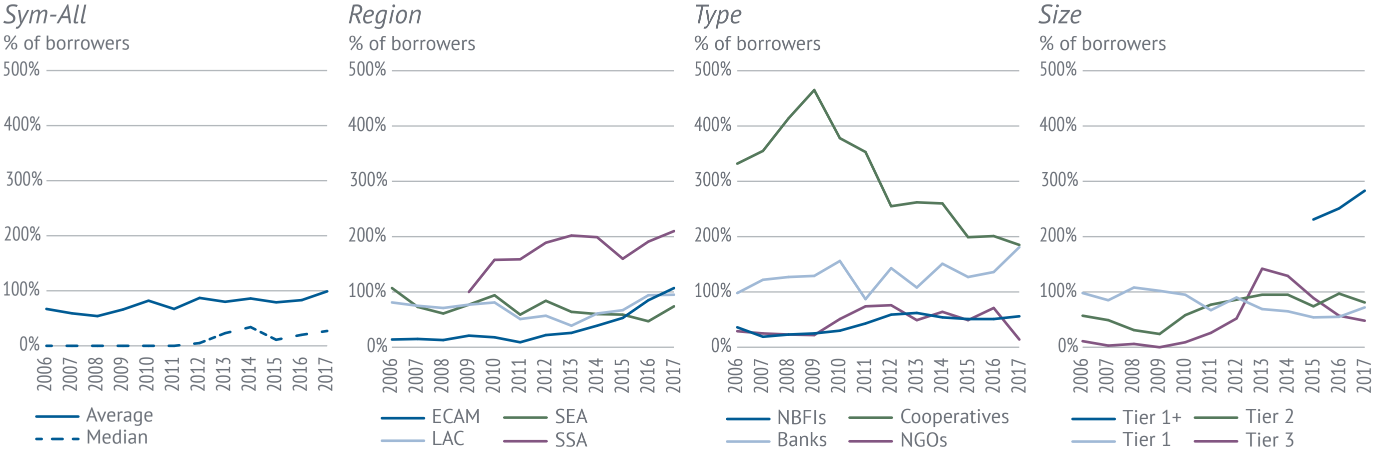


NUMBER OF DEPOSITORS PER BORROWER

The ratio of depositors to borrowers almost reached the 1:1 mark for our full sample in 2017, increasing from 67% back in 2006 (Figure 11). This increase is linked to evolving market regulations as FIs in many countries are benefitting from deposit-taking licenses, some even within the NBFI status. Also, the addition of larger FIs in our pool of investees, notably banks, as well as the presence of cooperatives pulls the weighted averages upwards.

Considering the median, this number remains low, driven by the tier 2 and tier 3 segments and NGOs and NBFIs, which rely less on savings and deposits and constitute the bulk of the sample headcount. In terms of regions, cooperatives in LAC as well as the savings history in SSA imply higher ratios for these two geographies, whereas the ECAM line has historically stood near the bottom despite a recent surge in the ratio thanks to the inclusion of large tier1+ banks in the regional pool in the past couple of years. The ratio for cooperatives, which stood at 4.7:1 in 2009, has since deceased to less than 2:1, in accordance with the stable number of depositors (Figure 9) and increased borrowing clientele (Figure 4), which had historically been much lower than for other FI types.

Figure 11
Number of Depositors per Borrower



3.3 PRODUCTS

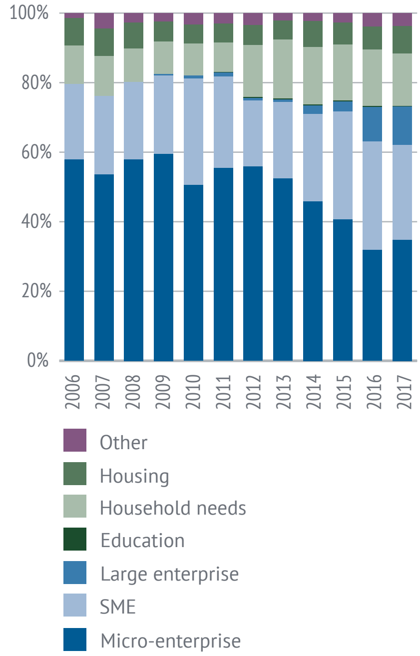
CREDIT PRODUCTS

Today, in accordance with changes in the Symbiotics sample composition, FI credit products are more diversified compared to 2006, when microenterprise loans accounted for 58% of GLPs. At the end of 2017, this figure had dropped to 35%, with SME and large enterprise loans increasing their respective shares, from 22% to 27% for SMEs and from 0% to 11% for large enterprise loans. This latter segment is usually served by tier 1+ banks whose borrower base includes substantial shares of corporates, as shown in Figure 12, in addition to the portfolio allocated to financial inclusion.

When segmenting the full sample, certain specificities come to light. In LAC, the share of SME loans is generally the highest among the different regions, at approximately one-third of GLP. In contrast, African FIs lean towards microenterprise loans, as do institutions in ECAM, apart from later years during which large banks have had an impact on the findings for this region. In SEA, results differ between sub-regions and even within countries of a similar sub-region. For instance, our FIs in Bangladesh, India and Pakistan usually allocate greater volumes for microenterprise development, while SME financing is more prevalent within our Sri Lankan FIs, which are in large part banks and leasing companies. SME financing also forms the bulk of loan products for our partners across East Asia.

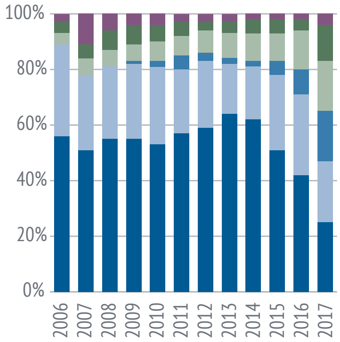
In terms of institution type, banks finance the upper segment of the market (with 55% of credits destined for SMEs or large enterprises) in contrast to NBFIs and NGOs, which have most of their loan book assigned to microenterprises. Cooperatives have traditionally financed greater amounts of household consumption within their member base than microenterprise loans.

Figure 12
Credit Offering
Sym-All
% of GLP

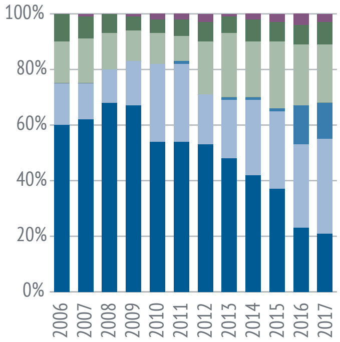


Region

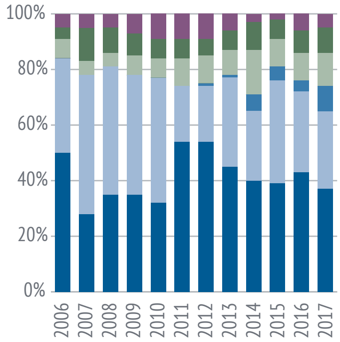
ECAM
% of GLP



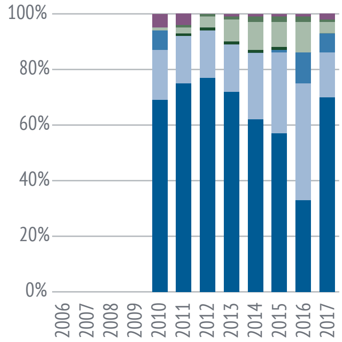
LAC
% of GLP



SEA
% of GLP

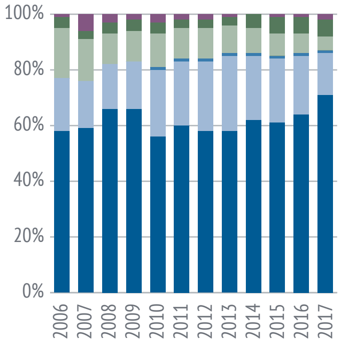


SSA
% of GLP

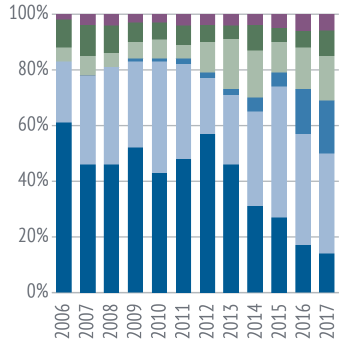


Type

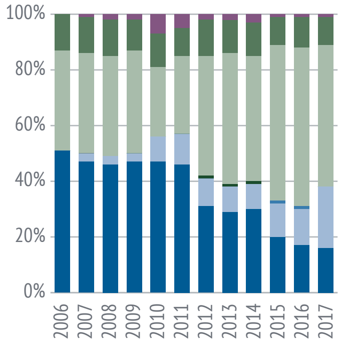
NBFIs
% of GLP



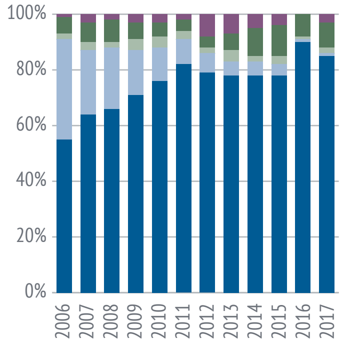
Banks
% of GLP



Cooperatives
% of GLP

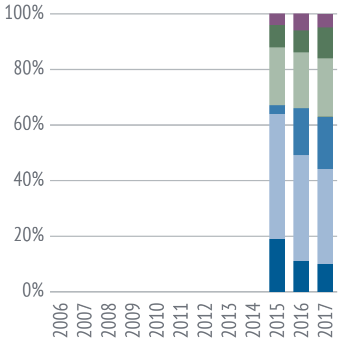


NGOs
% of GLP

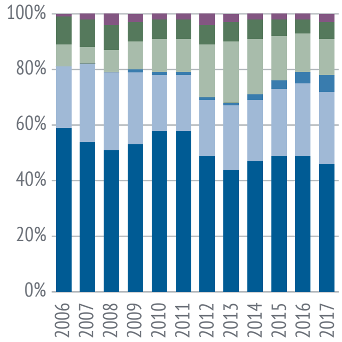


Size

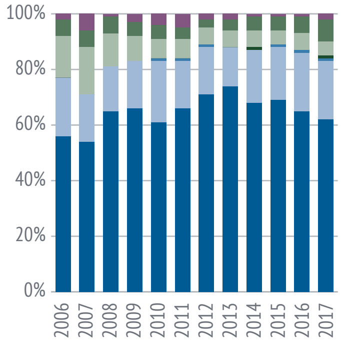
Tier 1+
% of GLP



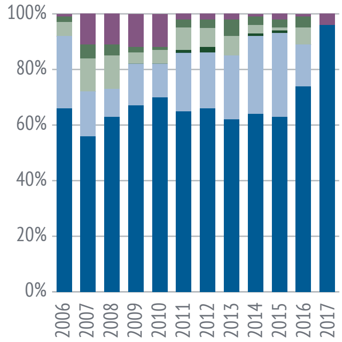
Tier 1
% of GLP



Tier 2
% of GLP



Tier 3
% of GLP



NON-CREDIT FINANCIAL PRODUCTS

In addition to supplying loans to the BOP, financial institutions also enhance the financial security of their clients by offering non-credit financial products such as payment services, capital accumulation services (i.e. savings), and insurance programs and policies. In theory, having increased access to any of these products would provide better safety nets for low-income clients to manage their cash safely and to be more resilient in the wake of external shocks to their cash flows[47].

Figure 13 shows how many FIs from the sample, as a percentage, provide any of the aforementioned non-credit products. A general observation is an increase in percentage since 2010 in all non-credit products. This is unsurprising given the growth of the sector, with FIs becoming more innovative and diversifying their product base beyond credit-only. Donor agencies have also been playing a key role in facilitating capacity building services for FIs in the form of technical assistance grants and funding for FIs to develop specific products aligned with their clients' needs.

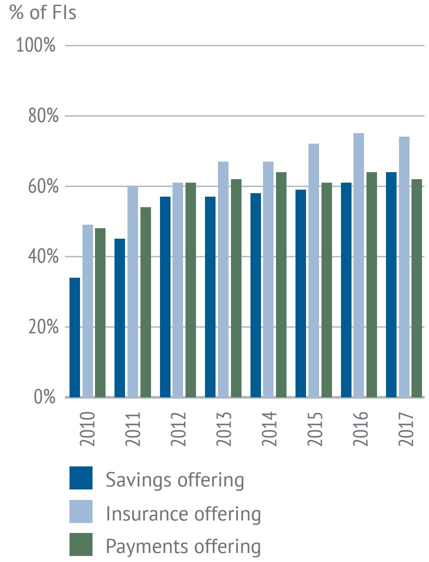
In 2010, nearly half of our sample was providing some sort of non-credit product. This figure amounted to over 60% at the end of 2017, with interesting disparities when segmenting between regions, size or type.

SSA, in line with previous findings, is the region with the highest percentage of FIs offering savings (>90%), followed by LAC, SEA and ECAM. SSA is also where most FIs offer payment solutions, again unsurprisingly given the region's competitive advantage when it comes to e-money development. Insurance policies are the norm for LAC FIs, with sample percentages varying between 83% and 97% depending on the year.

Cooperatives tend to supply the broadest range, with each of these non-credit financial products being offered by at least 95% of them. NGOs are more inclined to offer insurance than savings or payment products, while the reverse applies for banks. Thanks to evolving regulatory frameworks, by 2017 half of NBFIs were able to offer deposit accounts to their clients, two times more than in 2010.

Size-wise, close to all tier 1+ FIs provide all the non-credit products, while the ratios decline the further the institution size decreases.

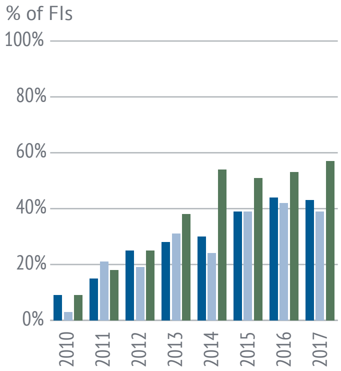
Figure 13
Non-Credit Financial Products
Sym-All



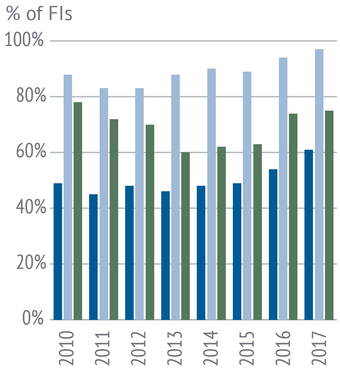
47 Symbiotics. 2017. *Managing and Measuring Social Performance.*

Region

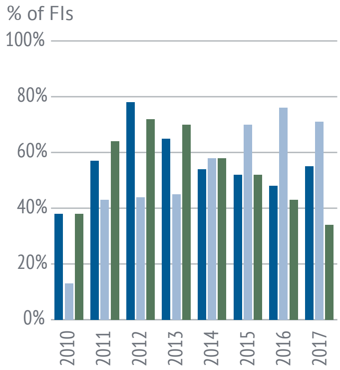
ECAM



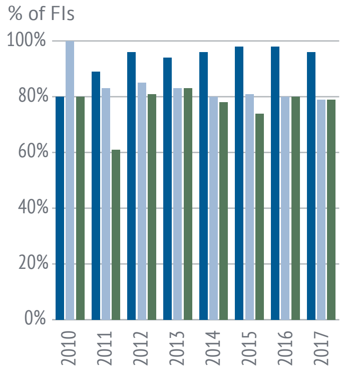
LAC



SEA

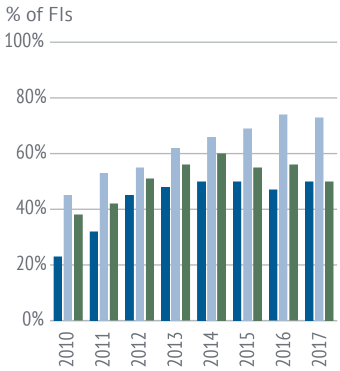


SSA

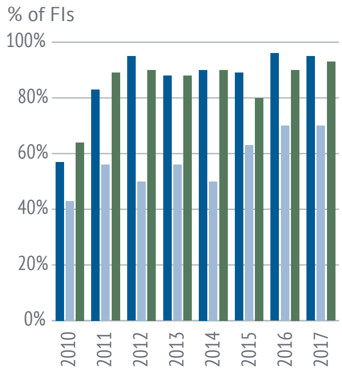


Type

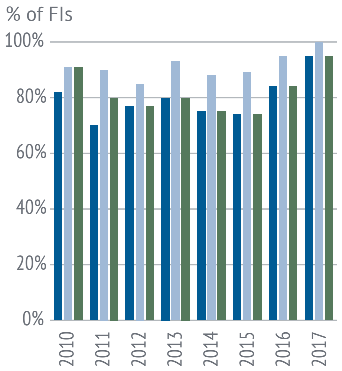
NBFIs



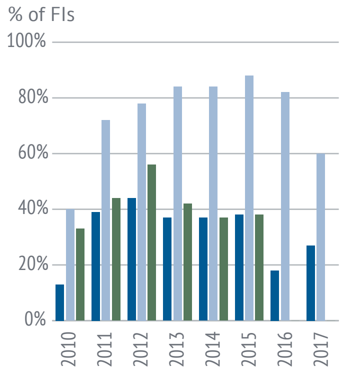
Banks



Cooperatives

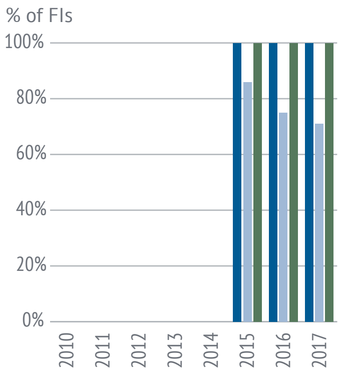


NGOs

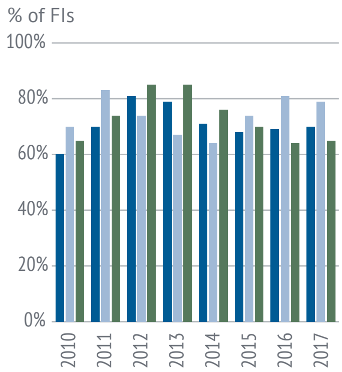


Size

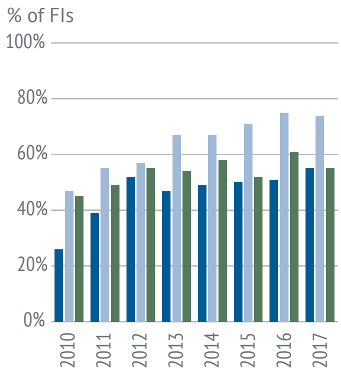
Tier 1+



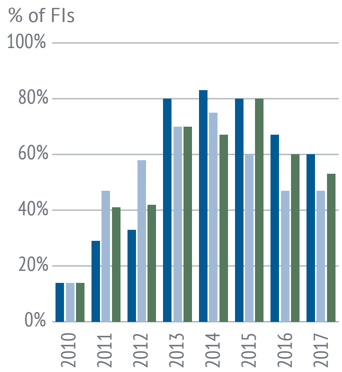
Tier 1



Tier 2



Tier 3



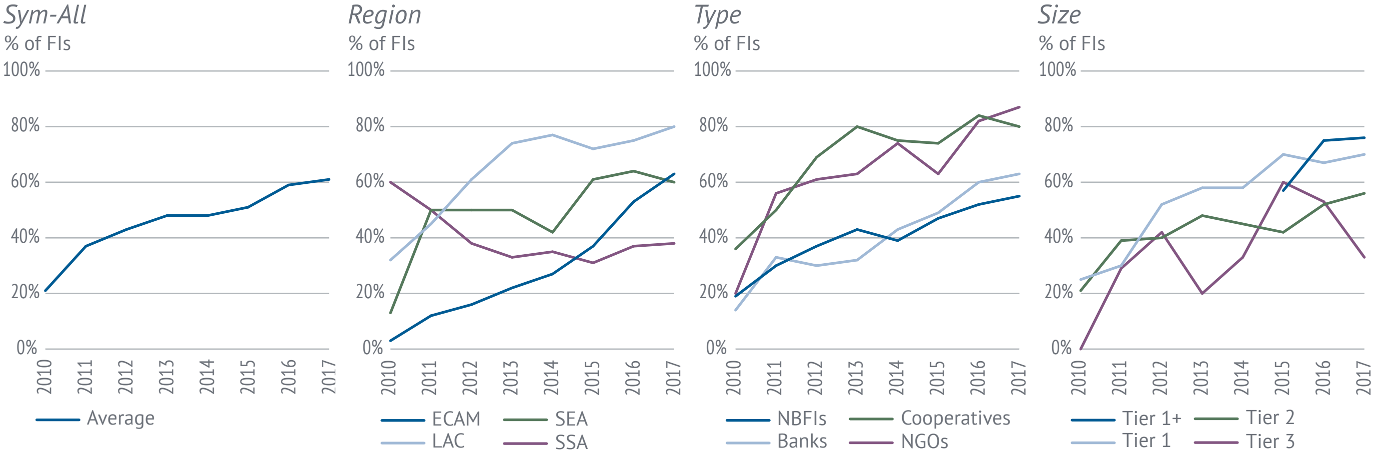
NON-FINANCIAL PRODUCTS

Other types of non-credit products, but this time on the non-financial spectrum, are business advisory services and training offered to end-clients. These non-financial products generally cater to MSMEs, less so to LMIHs. The former usually benefit from these advisory and training tools to scale up their micro or small businesses.

Like non-credit products, the percentage of FIs from the sample that offer non-financial products is increasing. In 2010, a fifth of our sample provided such tools, a number that has reached 60% at the end of 2017 (Figure 14). This significant trend, multiplied by 3 over 12 years and growing, shows the particular client experience that the inclusive finance industry is putting into its service offerings as it focuses on capital as well as learning support.

ECAM is the region where more and more FIs are supplying non-financial products, with the trend increasing faster than in other regions. LAC leads the way, while less than 40% of FIs in SSA have this type of product. As for FI size, observations indicate that the larger the FI, the more likely it is to supply MSMEs with non-financial products. Thanks to their socially embedded mission, NGOs and cooperatives lead the industry in terms of non-financial product offering, while banks and NBFIs have also assigned increasing importance to such products since 2010.

Figure 14
Non-Financial Products



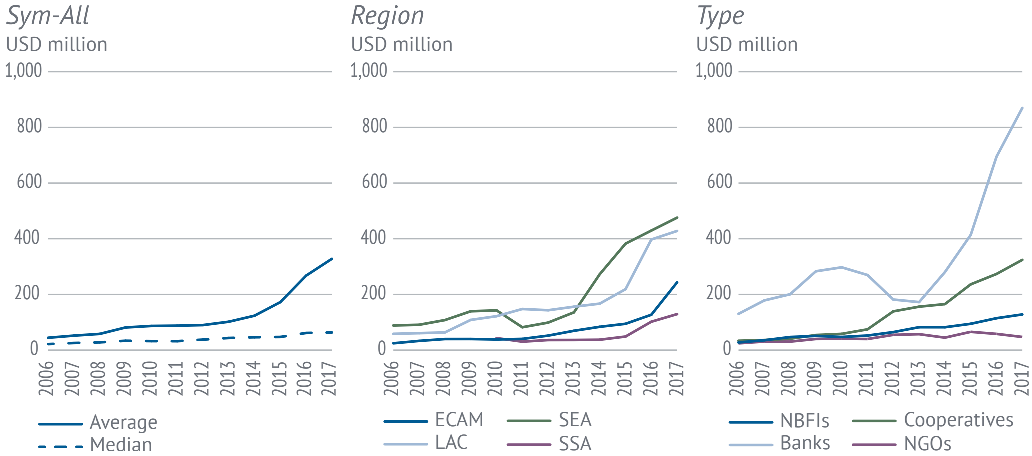
4. ASSETS

In this section, we analyze the left side of FI balance sheets, i.e. their assets and their structure and dynamics, which they control and develop to generate positive economic value for the BOP in emerging and frontier economies. Mainly composed of their loan portfolio, segmented as described in the previous section, their size, yield, costs, productivity and quality can vary a lot among tiers, models and regions.

4.1 ASSET SIZE

Figure 15 provides a good overview of the main change and growth that has occurred in the sample over the past twelve years. There is a clearly observable exponential increase in average FI size from 2014 onwards, during which we added a significant number of tier 1 and tier 1+ institutions to our portfolio. As these large institutions pull the sample's average FI size upwards, a more sensible approach to understand asset growth is to consider the median. The median of total assets grew at a rate of 10% per annum, tripling in size since 2006, from USD 21 million to USD 63 million as of December 2017. Today, SEA and LAC – where more than half of the sample are tier 1 or tier 1+ FIs – logically have the highest median total assets (USD 98 million and 196 million respectively). In terms of FI type, banks and cooperatives, today encompassing the majority of tier 1 and tier 1+ FIs, have had the highest annual growth in median total assets (29% and 22%) over the 2006-2017 period. The sample of NBFIs and NGOs shows more stable evolutions (9% and 6% growth per annum respectively) over the same period.

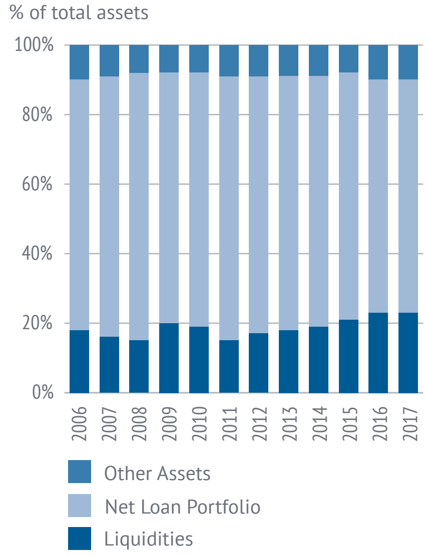
Figure 15
Total Assets



4.2 ASSET COMPOSITION

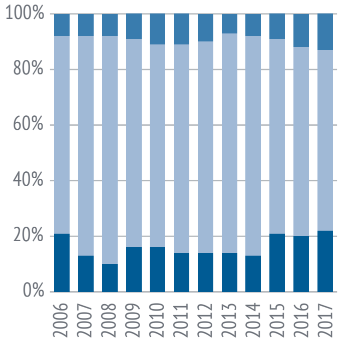
Total asset components for all FIs have followed a very stable trend since 2006, not only for the full sample but also across regions, type and size. For Sym-All, the net loan portfolio (GLP minus loan loss reserves) represents close to three-fourths of total assets, with a slight decline from 2014 onwards in favor of liquidities that include cash and short-term investments (Figure 16). These have averaged 18% since 2006, with a higher ratio for banks (23%) and cooperatives (22%), which usually have regulatory requirements with regards to liquidity levels to maintain.

Figure 16
Breakdown of Total Assets
Sym-All

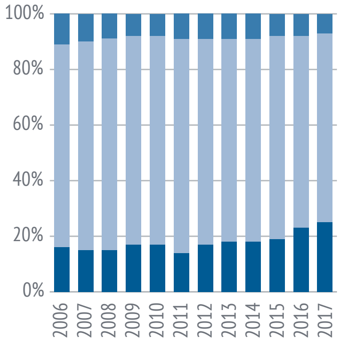


Region

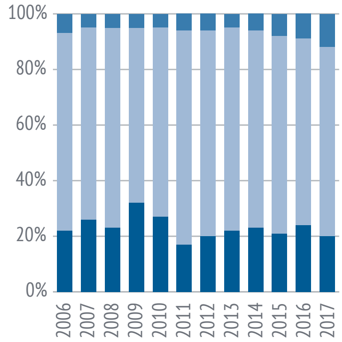
ECAM
% of total assets



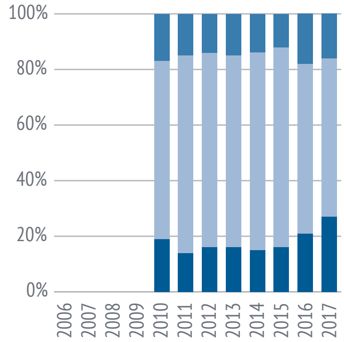
LAC
% of total assets



SEA
% of total assets

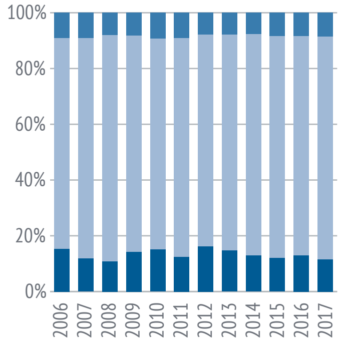


SSA
% of total assets

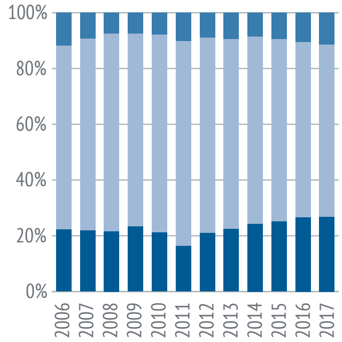


Type

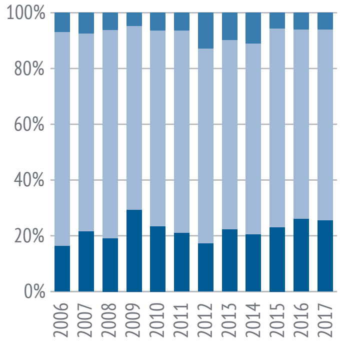
NBFIs
% of total assets



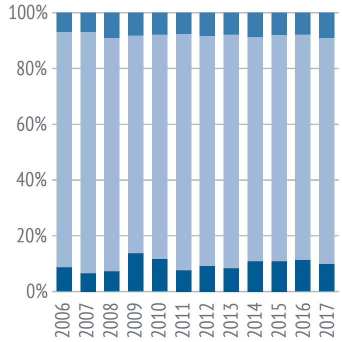
Banks
% of total assets



Cooperatives
% of total assets

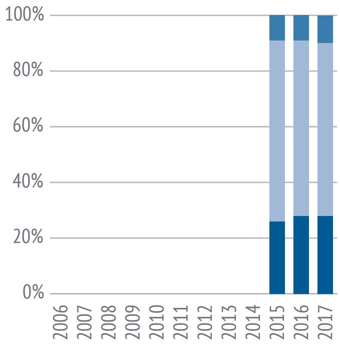


NGOs
% of total assets

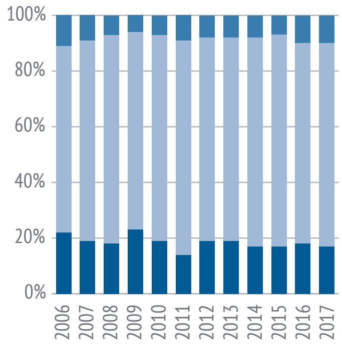


Size

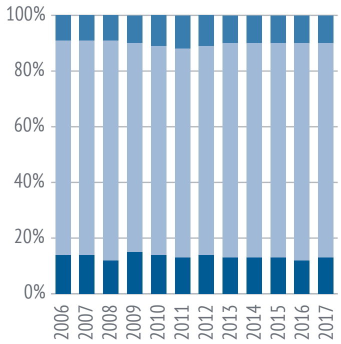
Tier 1+
% of total assets



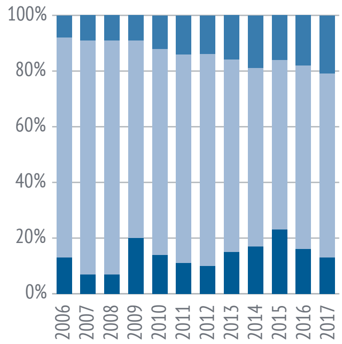
Tier 1
% of total assets



Tier 2
% of total assets



Tier 3
% of total assets

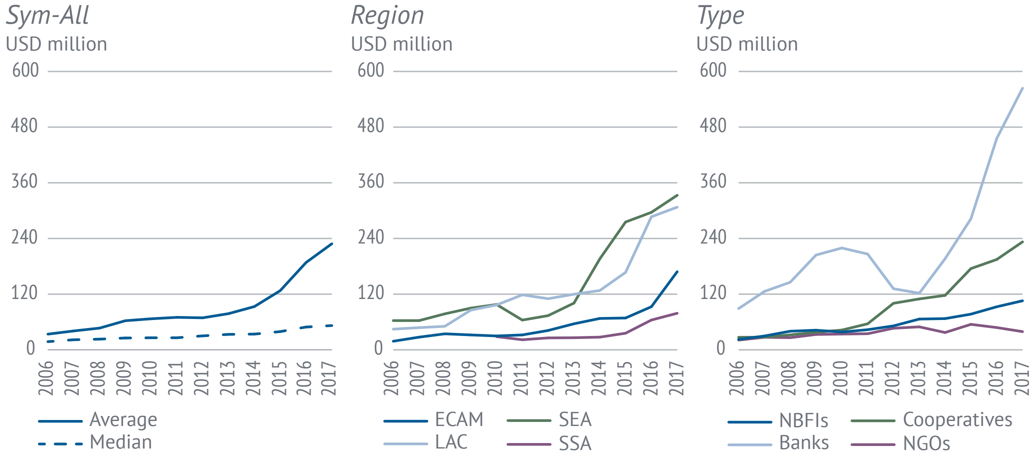


4.3 PORTFOLIO INFORMATION

SIZE

The average and median GLP volumes, displayed in Figure 17, have followed the same pattern as for total assets (Figure 15). The median GLP increased by a 10% annual rate between 2006 and 2017, from USD 18 million to USD 52 million. SEA and LAC are the regions with the highest median GLP (USD 154 million and USD 88 million), which is explained by the presence of numerous large banks and cooperatives.

Figure 17
Loan Portfolio Size



METHODOLOGY

In terms of volume, the majority of FI GLP is channeled through individual lending. This type of credit methodology has averaged 90% of GLP over the review period (Figure 18). However, individual loans are trending downwards, with the group-lending model increasing its share. GLP volume through group loans has steadily increased, from 6% in 2006 to 8% in 2010 to 14% in 2017. This result is generated from the addition of South Asian FIs in our portfolio, most of which have their clientele organized in the traditional microcredit group loan/joint solidarity methodology. Despite such an increase, absolute volumes through this methodology remain low, signaling that group-loan clients have lower credit sizes on average compared to individual clients.

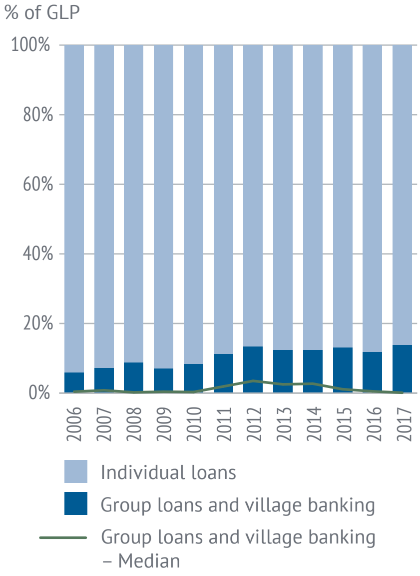
Africa is also a region where FIs channel an above-average portion of their GLP into group-lending formats. However, in all four regions, loan portfolios are largely allocated to individual borrowers.

NGOs and NBFIs have historically been the principal providers of group loans, with on average 23% and 17% of their GLP disbursed under this form in the 2006-2017 period.

Larger institutions, such as tier 1+ and tier 1 FIs, have the greatest volumes in individual lending. This is also the case for tier 2 and tier 3 FIs, albeit with a more balanced mix between individual and group loans.

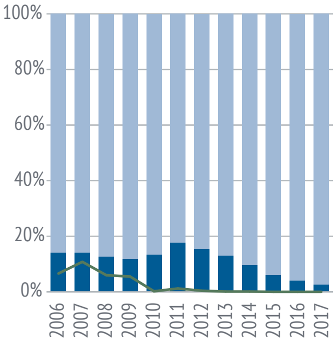
Figure 18
Loan Methodology

Sym-All

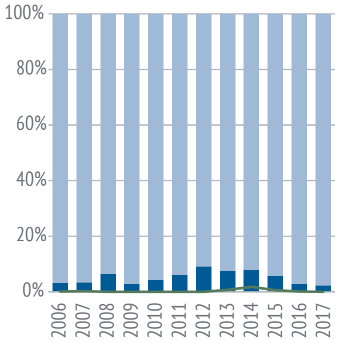


Region

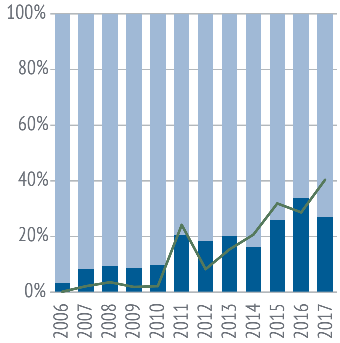
ECAM
% of GLP



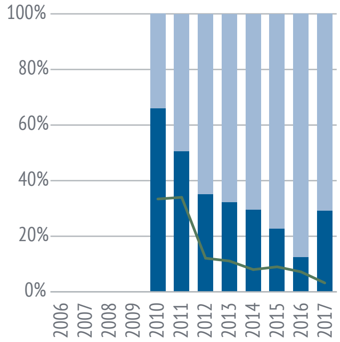
LAC
% of GLP



SEA
% of GLP

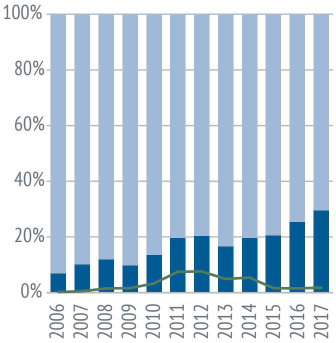


SSA
% of GLP

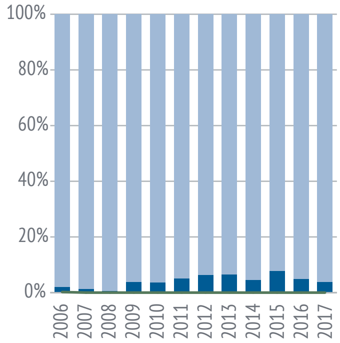


Type

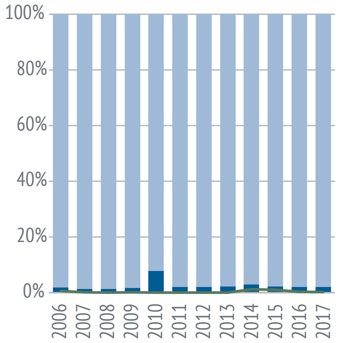
NBFIs
% of GLP



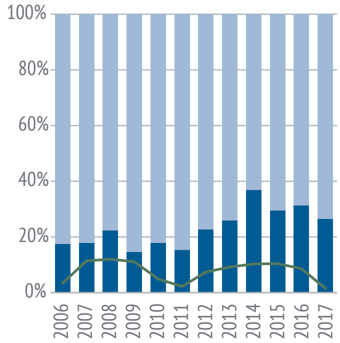
Banks
% of GLP



Cooperatives
% of GLP

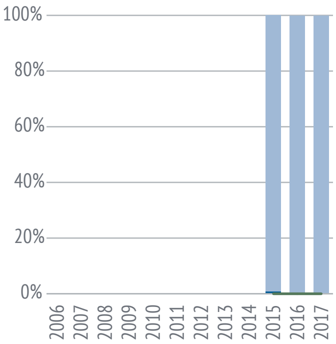


NGOs
% of GLP

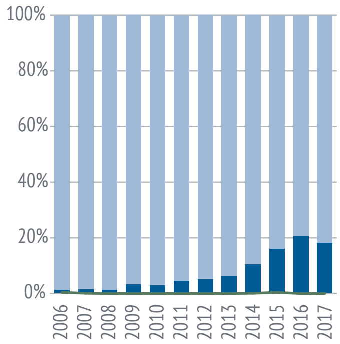


Size

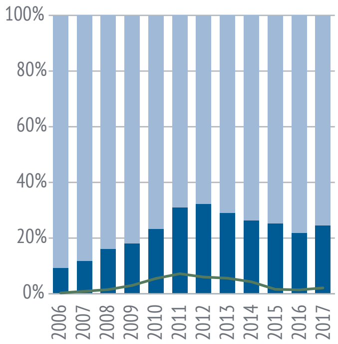
Tier 1+
% of GLP



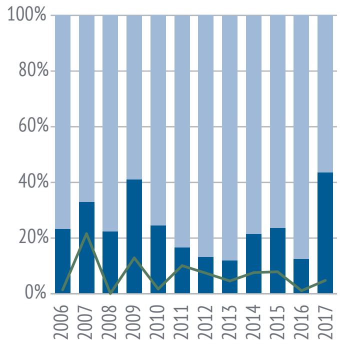
Tier 1
% of GLP



Tier 2
% of GLP



Tier 3
% of GLP

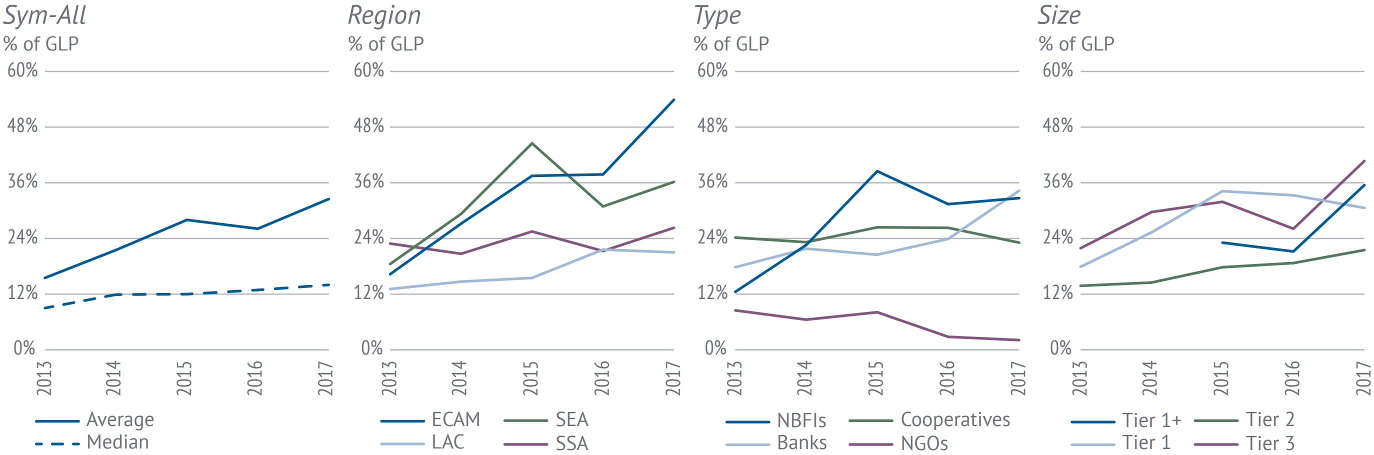


COLLATERAL

Microcredit is generally perceived as uncollateralized lending, especially when it comes to the provision of very small loans or when operating under the group-lending methodology. However, research shows that unsecured lending practices are not necessarily common in microfinance, in particular for individual lending where a range of often informal types of collateral are formed[48].

Banks mostly have a legally binding framework that provides incentives for the search for some form of collateral against a loan. Hence, collateral remains a barrier to accessing finance for some borrowers when dealing with formal bank credits, especially microentrepreneurs who do not always have adequate assets to pledge against a loan. This is less the case outside the formal banking sector, where collateral requirements are less stringent.

Figure 19
Asset-Backed Portfolio



48 Balkenhol, B. and H. Schütte. 2001. *Collateral, Collateral Law and Collateral Substitutes (2nd Edition)*. International Labour Office.

From a lender's point of view, collateral is a protection against risk and can reduce transaction costs, with an effect on the agreed interest rate. The amount of collateral is also a measure of FI asset quality. The level of collateral can be assessed through the asset-backed portfolio ratio, which measures the GLP that is backed with hard collateral (Figure 19)[49]. For the Sym-All portfolio, observations available since 2013 show that both the weighted average and median lines trend upwards. The average has more than doubled over the period, from 16% in 2013 to 33% at the end of 2017, whereas the median increased from 9% to 14%. NGOs in the yearly samples have reduced their share of hard collateral in their GLP, from 8.5% in 2013 to 2.1% in 2017. Overall, trends are increasing for the total sample, signaling more secured portfolios, a finding aligned with the up-market target population of larger institutions that usually require more collateral as loan volumes become more significant.

We have seen previously that in ECAM, a relatively large number of borrowers are involved in activities such as transportation, construction, housing or renewable energy (Figure 8). For such activities, it can be argued that borrowers can provide quantifiable assets as collateral when contracting debt, which in turn explains the recent surge in the asset-backed portfolio ratio for the ECAM region.

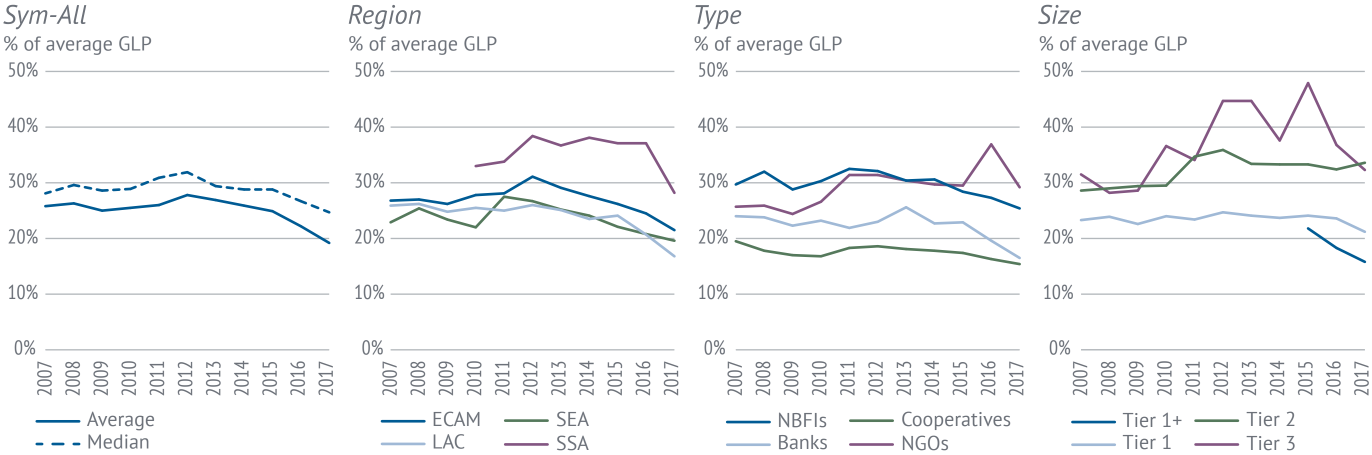
49 Symbiotics includes the following items as part of hard collateral: land or real estate; cash used to secure GLP; gold pledges; volumes of leasing portfolio; volumes of factoring portfolio.

YIELD

Symbiotics partner FIs have recently experienced a decline in portfolio yield, decreasing since 2012 (when it stood at 27.8%) at an average rate of 7% per year. This tendency concerns all regions and every type of FI. The average yield now amounts to 19.2%. The median line sits above the weighted average, which indicates that large institutions from the sample pull down the yearly average.

At a regional level, the largest yields are seen in SSA, where the average value, although reaching its lowest point in 2017, still amounts to 28.2%. Our partner FIs in SSA work predominantly in the micro segment, where loans tend to have a higher interest rate attached to them given the riskier clientele. FIs from SEA, where average loan balances are similar to those in SSA (Figure 5), are able to set lower interest rates on average thanks to more cost-effective business models, the use of group lending methodologies, interest rate ceilings in certain regulations, and the sourcing of domestic funding at low rates, which in turn gets translated into lower-interest credit for borrowers.

Figure 20
Portfolio Yield



Cooperatives lend at the lowest rates (average yield of 15.4%). NGOs, because of their small size and target clientele, have to bear higher costs and risks. Although they have historically been, along with NBFIs, the type of FI with the highest average rate, the BOP clientele of these NGOs still uses their services as these FIs usually operate in regions and on segments that are not served by other FIs; such alternatives for these clients, i.e. the informal money-lending market, have higher rates.

Tier 1+ FIs benefit from their economies of scale and cheaper funding to offer the lowest interest rates (portfolio yields of 15.8%) as they have the potential to facilitate access to finance for large amounts of underserved clients.

COSTS

FI costs related to their portfolio operations can take many forms. We have broken them down in 3 categories (Figure 21):

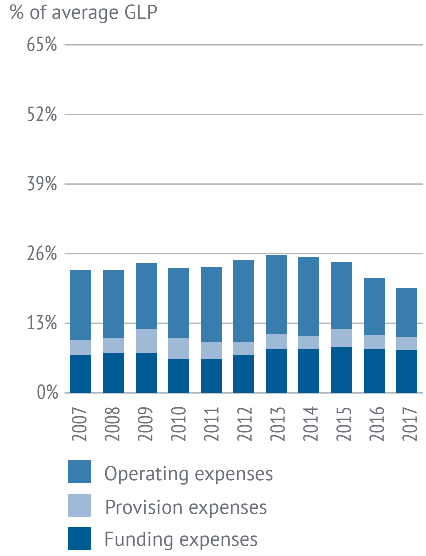
- Funding expenses, which account for interest payments to debt holders as well as depositors;
- Loan provisioning expenses, an accounting procedure that sets aside future expenses linked to non-performing loans, defaults and losses;
- Operating expenses, which include both personnel and administrative expenses.

Together, these three types of cost have amounted to 23.5% on average annually, with varying levels depending on the cost type or the year. Funding expenses (7.5% on average) and provisioning expenses (3% on average) have been more stable during the review period when compared to operating expenses (12.9%). These latter costs have been decreasing somewhat over the last few years due to the pool of large FIs with larger economies of scale and solvency, which allows for more cost cutting and cheaper funding. Tier 1+ and tier 1 FIs are able to keep their total costs below 20% and 25% respectively. Tier 2 FIs, which form the bulk of yearly samples, have average costs above 30%, with operating expenses varying between 14% and 23% depending on the year. Tier 3 institutions can experience peaks well above those of tier 2.

NGOs and NBFIs, with their limited portfolio size (Figure 17), have on average spent the highest fraction of their GLP on operating costs and on total expenses more generally (27% and 26% over the period respectively). Cooperatives, on the other hand, have benefitted from the lowest operating expenses.

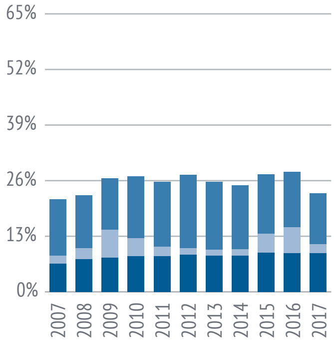
Overall costs are higher for FIs in SSA, followed by ECAM. FIs in LAC and SEA display greater efficiency. In SSA, operating expenses are the highest and funding expenses are increasing (mostly due to greater amounts of local currency). For ECAM, provisioning expenses saw hikes following the global financial crisis (2009-2010, with defaults peaking in Bosnia) and following commodity and oil price increases (2015-2016, with defaults peaking in Azerbaijan). Operating expenses are lowest in SEA, while the recent surge in provisioning expenses in 2017 is due to the effects of the demonetization policy and new small business taxes introduced in India. In LAC, costs have been under the 25% mark in most years and decreased significantly in 2016 and 2017 thanks to lower operating expenses.

Figure 21
Portfolio Costs
Sym-All

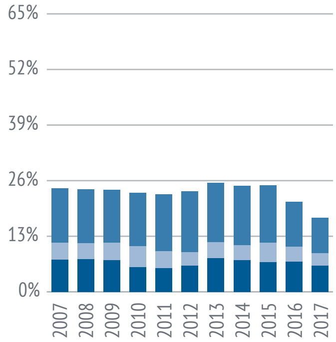


Region

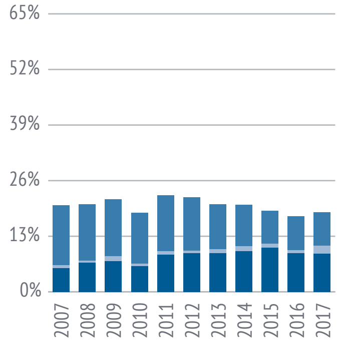
ECAM
% of average GLP



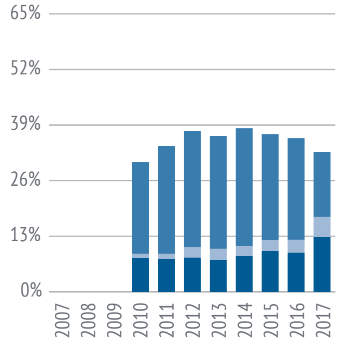
LAC
% of average GLP



SEA
% of average GLP

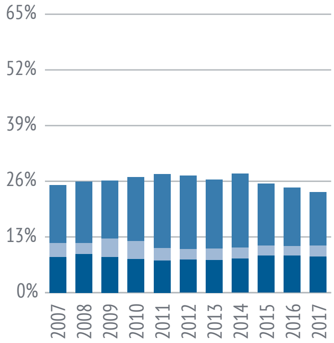


SSA
% of average GLP

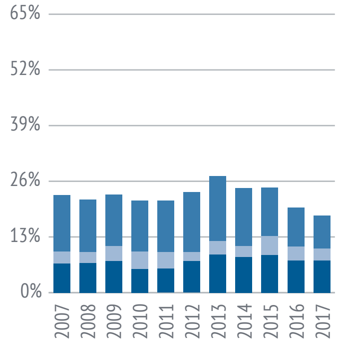


Type

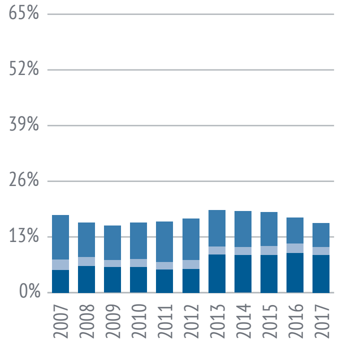
NBFIs
% of average GLP



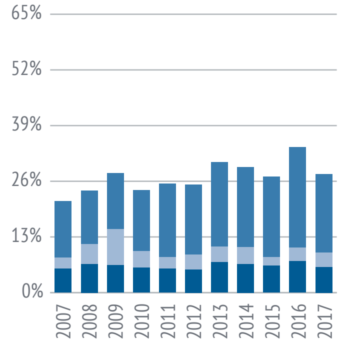
Banks
% of average GLP



Cooperatives
% of average GLP

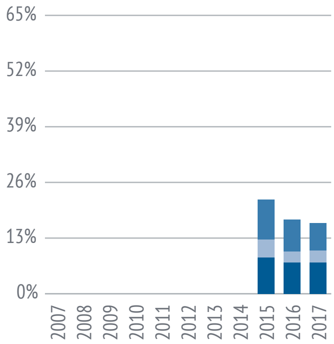


NGOs
% of average GLP

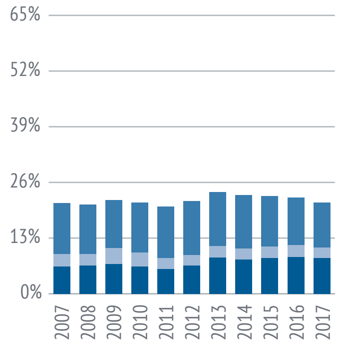


Size

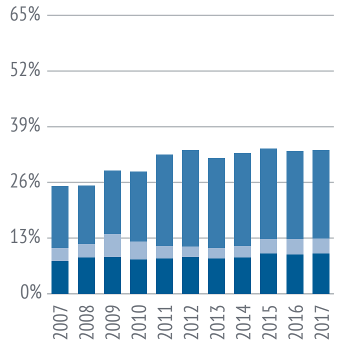
Tier 1+
% of average GLP



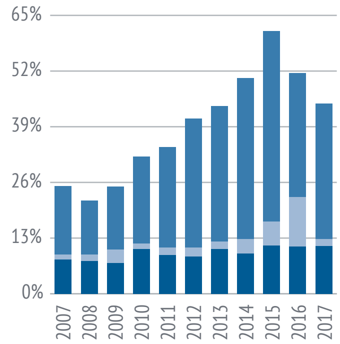
Tier 1
% of average GLP



Tier 2
% of average GLP



Tier 3
% of average GLP

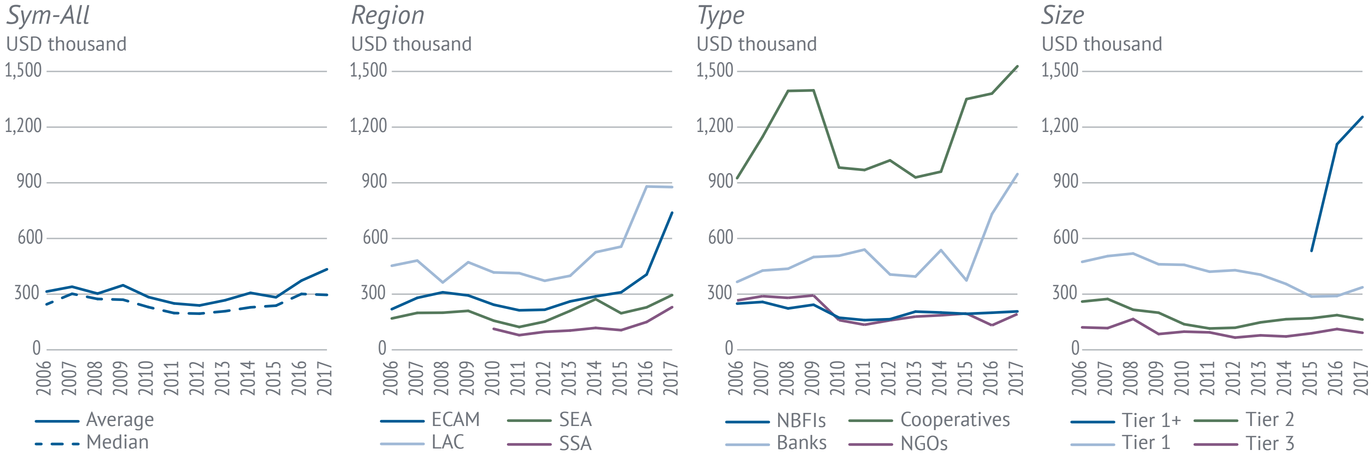


PRODUCTIVITY

Overall, portfolio productivity when measured by underlying GLP volumes per loan officer has increased by 3% per annum since 2006 (Figure 22). Growth has been faster in the last 5 years, at 13% per annum. The average outstanding GLP per loan officer is now 37% larger (USD 431,150) compared to 2006 (USD 314,254).

In line with their higher loan balance per client (see Figure 5), and also due to the captive nature of their clientele and the consumer finance nature of their loans (often with salary-based payments, less analysis, fewer physical interactions), cooperatives perform the best (over USD 1.5 million per loan officer). Banks that may have much larger client segments (corporate) but much more preparation and interaction with clients follow with USD 946,600 per loan officer.

Figure 22
Loan Officer Productivity (volume)



Productivity increases proportionally with the size of the institution. Tier 1+ institutions clearly outperform the benchmark (over USD 1.2 million), whereas tier 1 institutions, second in the ranking, 'only' achieve productivity of USD 336,725 per loan officer. In fact, the average book size of loan officers of tier 1, tier 2 and tier 3 FIs is lower than in 2006, although that year presented a much smaller sample size.

Regionally, productivity has been growing rapidly since 2012 in ECAM and LAC, at an average annual rate of 28% and 20% respectively. These figures can be partly explained by the inclusion of several cooperatives and large banks from these regions into our portfolio. SSA, although the region with the lowest loan officer productivity, has seen this ratio more than double over the last two years for the same reasons.

EFFICIENCY

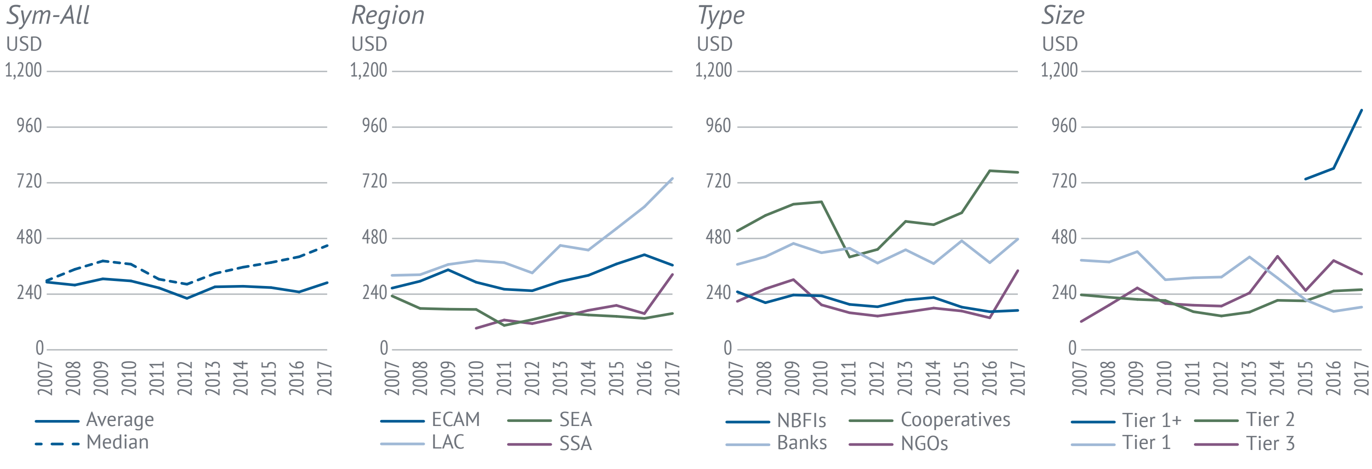
The operational performance of these portfolios can also be measured from an efficiency stand-point, analyzed through the lens of costs of borrowers (Figure 23). Whereas this indicator reached its minimum value in 2012 (USD 222 per borrower), it now stands at USD 289, approximately the same amount as in 2007 (USD 292). The median line sits above the weighted average, implying that FIs with a high borrower base (the denominator of the equation), or low operating expenses (the numerator in the equation), i.e. NBFIs in both cases, pull down the weighted average.

The costs per borrower appears to be the highest and growing in LAC (from USD 337 in 2006 to USD 739 in 2017), driven by the increasing presence of large cooperatives and banks in this region. This is essentially a result of the design of the formula, itself linked to the limited ability of institutions to report on disaggregated costs, depending on what activities they are tied to. Indeed, for these types of institutions, operating costs related to other assets (other than loan portfolio) and, mainly, to the management of savings and deposits are included in the numerator, while savings clients themselves are not included in the number of clients in the denominator. Additionally, some activities do not actually have clients but bear costs (i.e. investment activities, handled by specialized teams). Therefore, these banks and cooperatives will exhibit higher costs per borrower relative to NBFIs or NGOs, which does not necessarily reflect reality in terms of lack of efficiency on the active clients' side. Yet it still says something about the indirect costs that come, notably in terms of financing balance sheets, through savings and deposits (marketing, security, promotional staff, cashiers, systems, controls, etc.).

The region with the lowest cost per borrower is SEA (USD 158 average over the period). Here, the number of active borrowers per institution is the largest (Figure 4) and efforts are mostly directed at lending business (less deposit funding, especially in India), which forms the majority, if not the only, income generating activity of institutions. SSA had similar costs until recently, but those grew by 108% in 2017 to reach USD 325, close to that of ECAM (USD 365). Although at first sight this rise in SSA could essentially seem to be caused by a change in the sample, the median value in the region has been growing steadily as well, from USD 93 in 2010 to USD 506 in 2017. This confirms that the region as a whole has been experiencing growing costs for several years, as illustrated in Figure 21, with significant funding and provisioning expenses in 2017. Thus, the change in the sample is obviously still playing its role, as an increasing number of banks and larger deposit-taking FIs have entered that SSA sample in recent years.

Tier 1+ institutions, which have a much higher average loan balance (Figure 5), as well as a higher fraction of assets not related to lending (Figure 16), had the highest costs per borrower as of December 2017 (USD 1,043). The explanations above on banks (the main representatives of this tier 1+ bucket) also stand true here. However, tier 1 institutions do not show the same trend; but here, as elsewhere, the increase in the number of Indian FIs in the sample

Figure 23
Cost of Borrowers



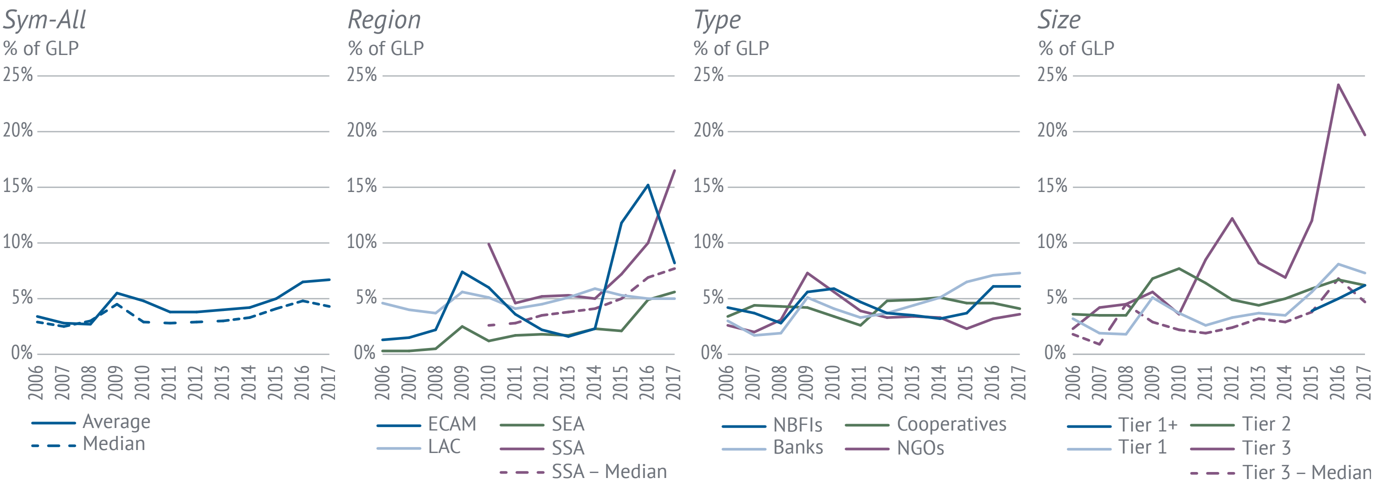
partly explains the downward trend. The latter are indeed obliged to strictly limit costs due to the margin cap (maximum of 10%-12% difference between lending rate and financing rate, basically where operating and provisioning expenses need to fit in order to remain operationally profitable).

The comparison of costs per borrower by FI type reprise most of the above explanations but also bring other analysis elements. Cooperatives, which lend much higher amounts on average (i.e. fewer borrowers), have the highest costs per borrower, even higher than banks, which tends to imply that, beyond the factor of the cost of other activities (deposits, investments), higher average amounts do not bring greater efficiency. This is quite interesting, and indeed a bit counter-intuitive; but in fact, explanations lie in the fact that cooperatives do not have profit-oriented shareholders and therefore have less stringent efficiency objectives than banks. They also have a higher cost of funding, and sometimes weaker underwriting and collateral, and consequently higher provisioning expenses. Meanwhile, NGOs and NBFIs have simpler business models that are exclusively oriented at lending for NGOs, while NBFIs may have more comprehensive service offerings (including savings). Yet, NBFIs compare well with NGOs in terms of costs per borrower, suggesting that here, with both higher loan amounts and number of clients, they benefit from economies of scale. Also, to continue the correlation with some of the explanations above, NGOs are not-for-profit and thus less bound to strict objectives in terms of efficiency.

PORTFOLIO QUALITY: PAR30

The evolution in FI portfolio quality can be measured through the portfolio at risk over 30 days (PAR30), to which we add restructured loans (but only from 2009 onwards). PAR30 has moved above and below a mean value of 4.4% over the review period (Figure 24). The first increase came in 2009, reaching 5.5% at the end of that year. This hike is explained first by adding the restructured loans that were not reported before 2009 in the PAR30 ratio formula and second by the consequences of the global financial crisis, mostly creating a liquidity shortage and thus the default of non-refinanced businesses in many emerging countries, but foremost in MIV portfolios in Nicaragua and in Bosnia & Herzegovina. This is well reflected by the LAC and ECAM curves for 2009. A second increase in PAR30 took place in most regions in 2015-2016 (ECAM, SEA, SSA) due to the decrease in oil and commodity prices, which primarily affected natural resource exporting economies. In Africa, the exponential increase observed in 2016 and 2017 was triggered by a couple of larger institutions in the region that witnessed low portfolio quality during those specific years; the use of the median better reflects reality, with values nearing 7.0%. Still, SSA has been on the higher end overall when it comes to PAR30. In particular, portfolio quality has deteriorated in the region since 2014 due to commodity price hikes eventually depreciating local currencies, in particular oil-dependent economies like Angola and Nigeria. This was also the case in ECAM, where Azerbaijan were especially hard hit as the vast majority of its export revenues were linked to oil production. ECAM FIs nevertheless improved substantially in 2017, when PAR30 dropped to 8.2% (vs 15.2% a year before), illustrating their strong recovery capacity. In SEA, the PAR30 has historically been very low, under 2.0%, except for in recent years in India, where the demonetization in 2016 and the new GST (goods and services tax) in 2017 affected the cash-heavy microfinance sector as well as the SME financing segment, although at levels less important than peaks in other regions at the same time.

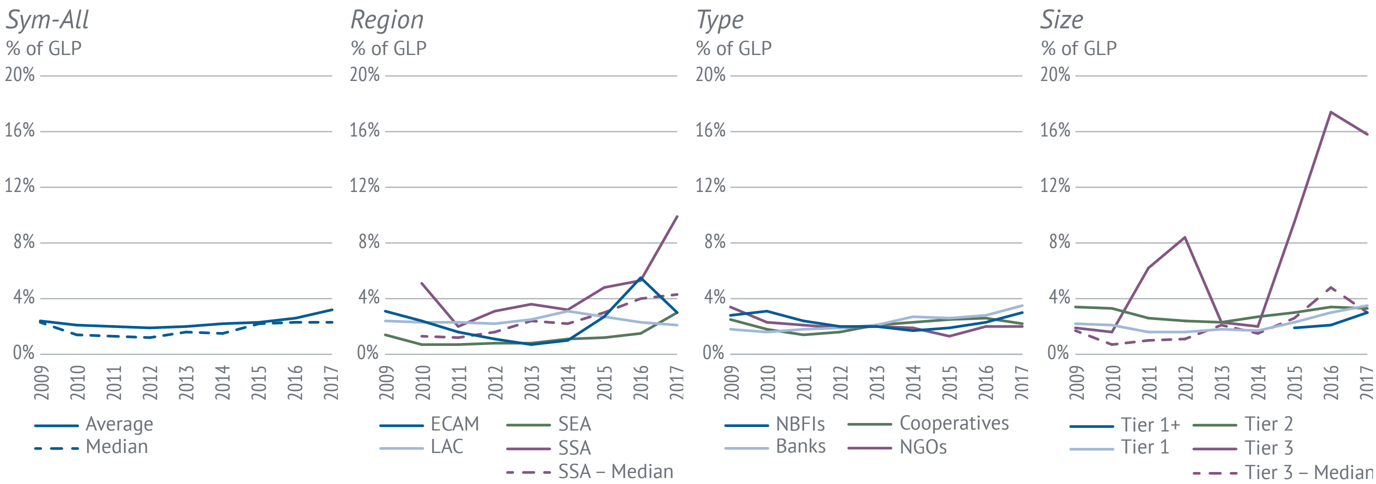
Figure 24
Portfolio at Risk > 30 Days (including restructured loans)



PORTFOLIO QUALITY: PAR90

Relative to PAR30 (including restructured loans), the portfolio at risk over 90 days (PAR90) is more stable. With the first observations starting in 2009, the weighted average has moved from around 1.9% to 3.2%, depending on the year, while the median falls between 1.2% and 2.3% (Figure 25). Smaller tier 3 institutions have seen some volatility in their values, with much lower portfolio quality compared to other tiers. However, given the relatively small sample size of tier 3 FIs, the median is a better approximation to use and its value averaged 2% from 2009 to 2017, despite an upward trend in recent years. In terms of FI types, all seem to be aligned around similar values. Overall, the 3-month portfolio quality remains very high, with 97% to 98% loans performance in the industry.

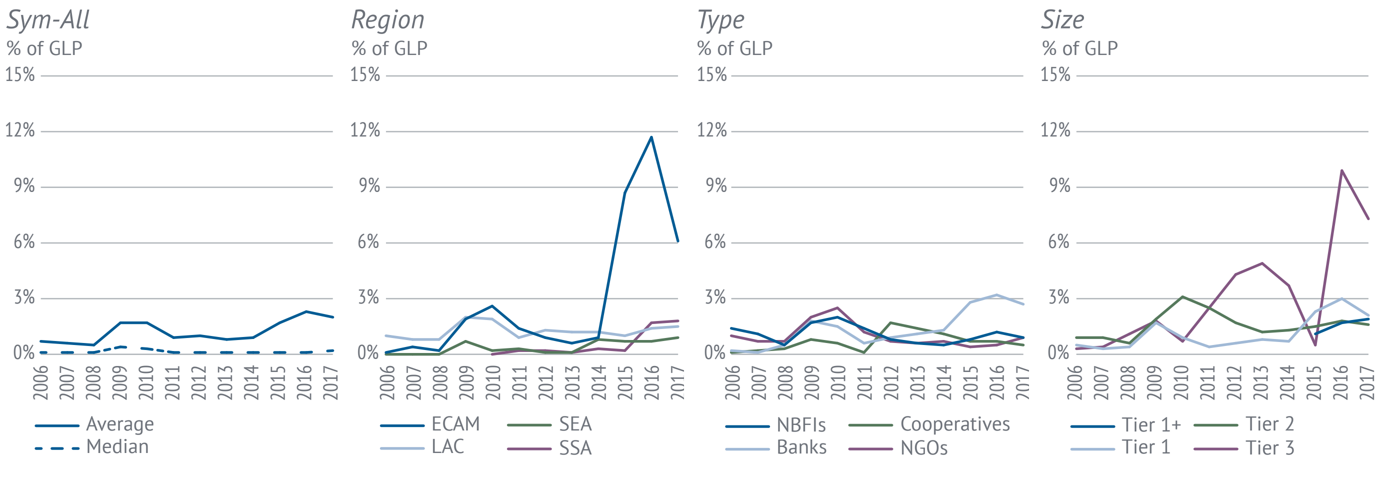
Figure 25
Portfolio at Risk > 90 Days



PORTFOLIO QUALITY: RESTRUCTURED LOANS

When focusing on restructured loans, we consider the total amount of loans for which the initial repayment schedule has been postponed in favor of the client (reprogrammed loans) or loans disbursed to the client before the repayment of the previous outstanding loans (refinanced loans). The trend lines match with our PAR30 observations (including restructured loans; Figure 24) with regional peaks in 2009-2010 and 2015-2016, which have a negative impact on the Sym-All sample. The median varies between 0.1% and 0.4% and the weighted average between 1.2% and 2.3% (Figure 26).

Figure 26
Restructured Loans

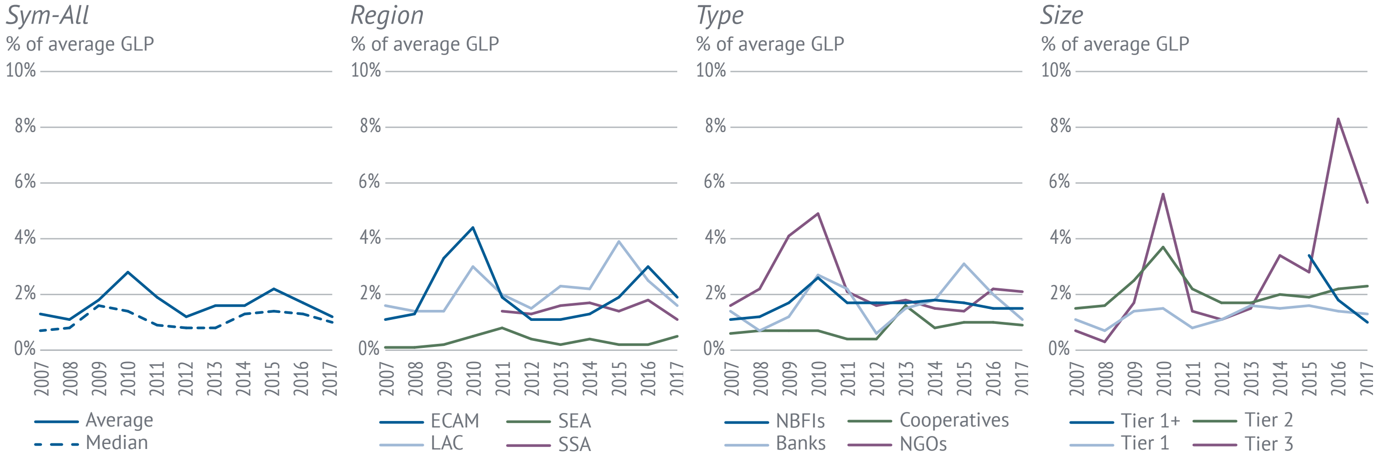


PORTFOLIO QUALITY: WRITE-OFFS

A loan write-off is an accounting procedure used to recognize uncollectible loans. As such, various jurisdictions or accounting policies will recommend different guidelines for when a loan is deemed uncollectible, making the overall comparison between FIs somewhat challenging. Nonetheless, understanding how much loan volume was removed from the books as a percentage of average GLP offers a view of how much turbulence took place within MSME markets at particular points in time. Put simply, write-offs reflect the pure accounting loss, irrespective of provisioning policies. For the most part, the repercussions of specific macro events will generate write-offs at a later stage given that the FI will initially work with its clients to restructure a transaction and implement measures to collect the non-performing loans before they are erased from its books. However, cases of partial or full recovery of written-off loans are not uncommon.

For the Symbiotics universe of investees, write-offs have averaged 1.6% since 2006, with higher ratios in 2010 and 2015 (Figure 27). As described earlier,

Figure 27
Loan Write-Offs



the 2010 peak is related to the consequences of the global financial crisis, with greater effects in the sample in LAC and ECAM. The following peak is related to oil and commodity changes, again more so in ECAM in 2016, but also more specifically due to high write-off ratios of tier 1+ FIs, more so in LAC in 2015, which has had an upward effect on the full sample due to the weighted average methodology. In terms of FI type, cooperatives have the lowest write-off ratio, at 0.8% on average, while banks and NBFIs have similar ratios (1.7% on average for both), with variances over the years.

5. FUNDING

In this section, we dive into the right side of the financial institution balance sheet, i.e. liabilities and equity. The chapter focuses on capital structure and how it enables financial institutions to fund their growth and operations, with each source of financing implying its own costs and dynamics.

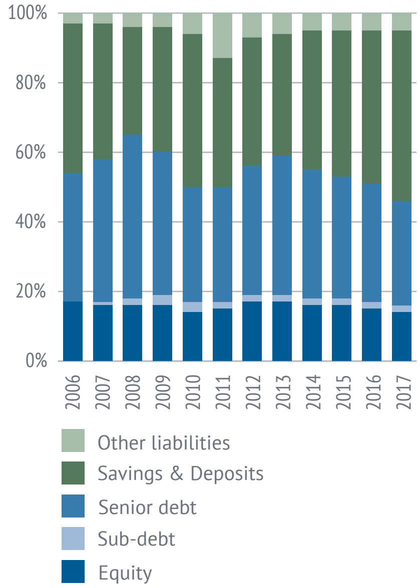
5.1 SOURCES OF CAPITAL

Savings and deposits have evolved from roughly 40% to 50% of FI funding sources in the sample over the 2006 to 2017 period, with peak contractions nearing 30% in 2008 and 2013. From that point on (2014), they have outpaced debt as a source of capital and remained above it since then (Figure 28). In third position, the share of equity funding has remained stable at 14% to 18% over the years. This evolution is consistent overall with the life cycle narrative developed in section 1.2. The MFI Business Case, but it also has material variances in region, size and model.

Savings and deposits for FIs in SSA are important contributors to growth, forming approximately one-third of the capital structure. Despite a strong savings culture, with a high number of depositors but coupled with low savings balances (Figure 9 and Figure 10), overall savings volumes in SSA end up quite equal to debt volumes, more so in recent years. LAC is characterized by an above average proportion of savings and deposits over the years, at nearly 50% since 2006. While at first sight this might show signs of a more mature financial sector, these numbers are explained by a greater number of banks and cooperatives in the region, more so in recent years. In the ECAM region, the relative volume of savings and deposits has more than doubled (from 15% to 39%) between 2014 and 2017, similarly due to banks and tier 1 FIs being added to the regional sample.

The funding structure of FIs differs significantly in function of their type. For cooperatives and banks, savings and deposits are by far the main source of funding (63% and 61% of funds in 2017 respectively), while NGOs, which do not have a deposit taking license, consequently have much higher levels of debt (65%) and equity (28%) funding. NBFIs, which do not always have such licenses, still rely slightly more on savings (21%) than on equity (20%), while debt represents about half of their funding.

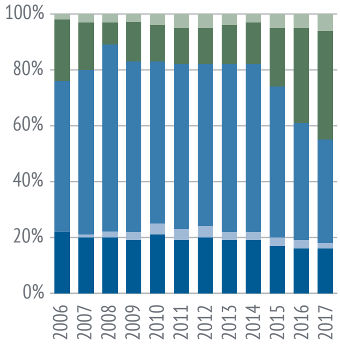
Figure 28
Funding Sources
Sym-All
% of total liabilities and equity



Region

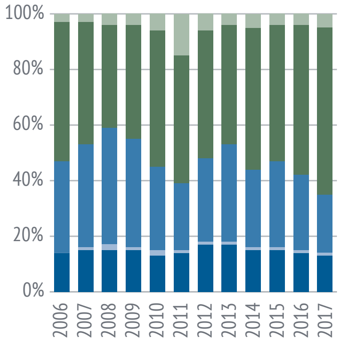
ECAM

% of total liabilities and equity



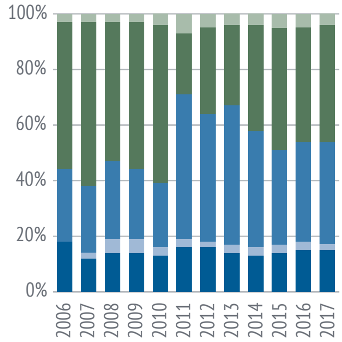
LAC

% of total liabilities and equity



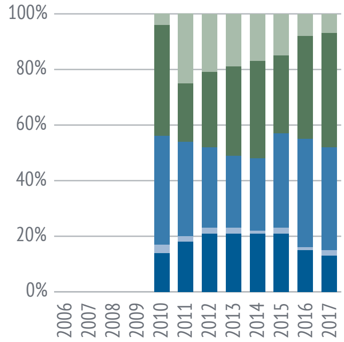
SEA

% of total liabilities and equity



SSA

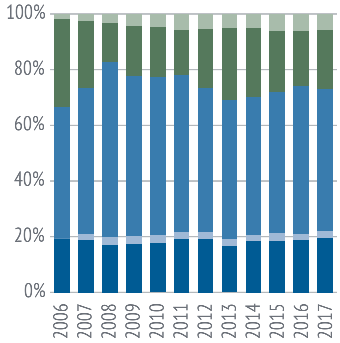
% of total liabilities and equity



Type

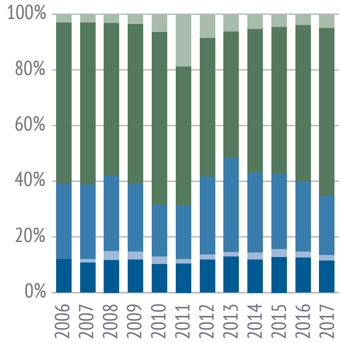
NBFIs

% of total liabilities and equity



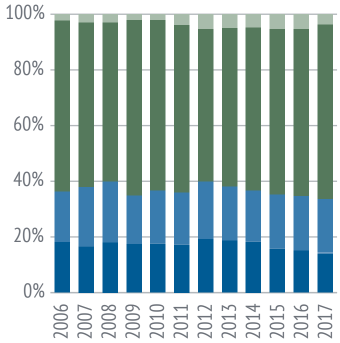
Banks

% of total liabilities and equity



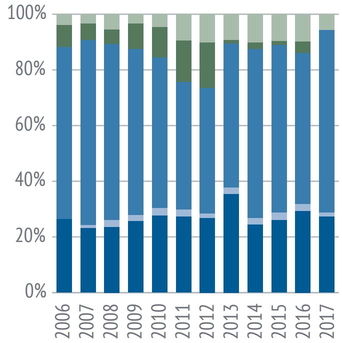
Cooperatives

% of total liabilities and equity



NGOs

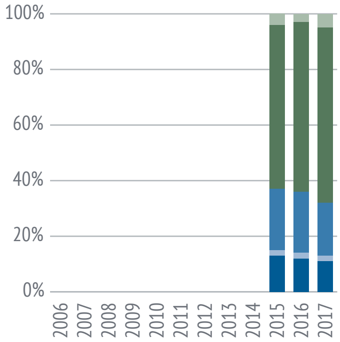
% of total liabilities and equity



Size

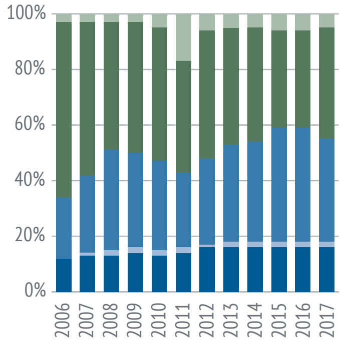
Tier 1+

% of total liabilities and equity



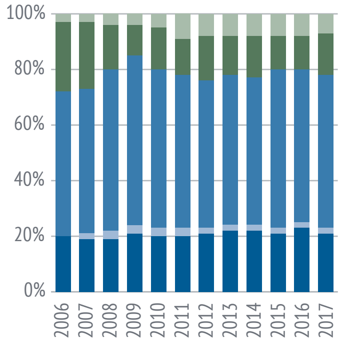
Tier 1

% of total liabilities and equity



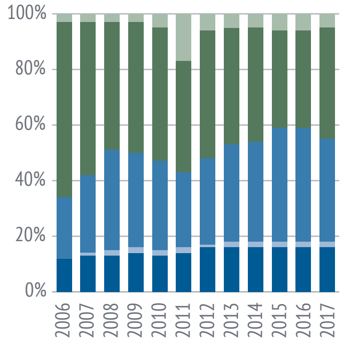
Tier 2

% of total liabilities and equity



Tier 3

% of total liabilities and equity

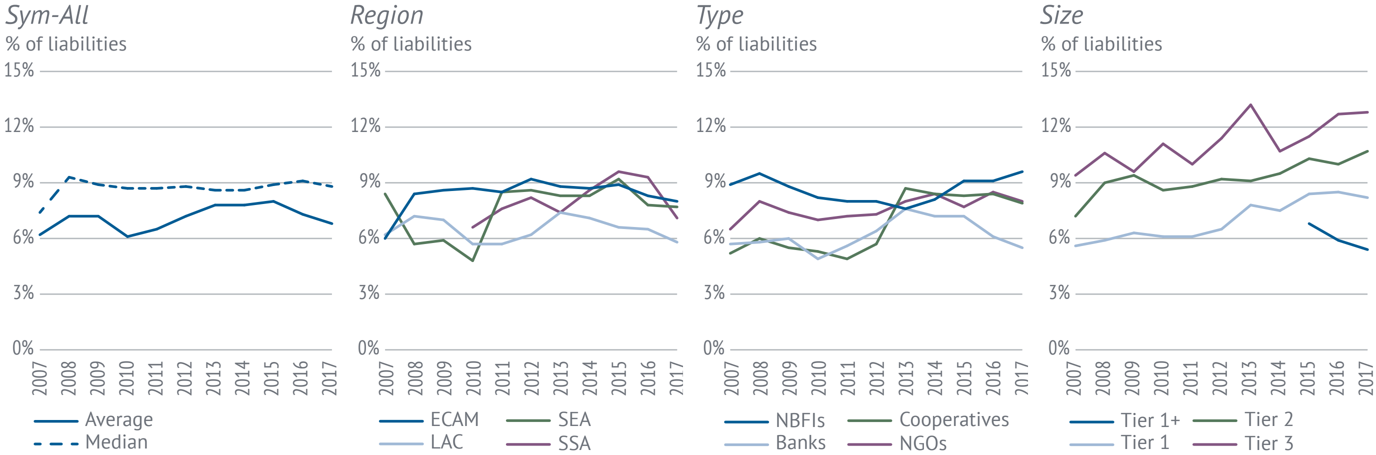


5.2 COST OF FUNDS

The cost of funds is the amount of interest that FIs pay on their savings and deposits and on senior debt. The weighted average cost of funds has remained relatively stable, moving between 6% and 8% depending on the year, while the median has remained close to 9% since 2008. This logically points to smaller, niche institutions rather than larger banks or tier 1+ FIs, which have wide coverage across the array of deposit clients and many other funding options (borrowings, capital markets) and can thus decrease their cost of funding. This is illustrated by the decreasing average trend over the 2013-2017 period, ending at 6.8%. Tier 1+ FIs exhibit the lowest cost of funding (at 5.4% in 2017).

In terms of regions, the cost of funds is the lowest in LAC, at 5.8% in 2017. SSA FIs often benefit from a larger share of cheaper subsidized funding sources, which explains how they are able to maintain similar funding cost levels compared to other regions. The region witnessed a drop in the last couple of years, ending the period at 7.1%, thanks to the addition of tier 1+ FIs in the African pool.

Figure 29
Cost of Funds



Matching the tier 1 narrative, banks – with higher regulatory supervision and better credit risk ratings – fund their activities at the lowest cost (5.5% in 2017). Cooperatives and NGOs also benefit from several actions, including access to savings for the former or some subsidized funding for the latter, whereas NBFIs, which are less likely to have deposits and less likely to benefit from subsidized funding, have the highest cost of funding.

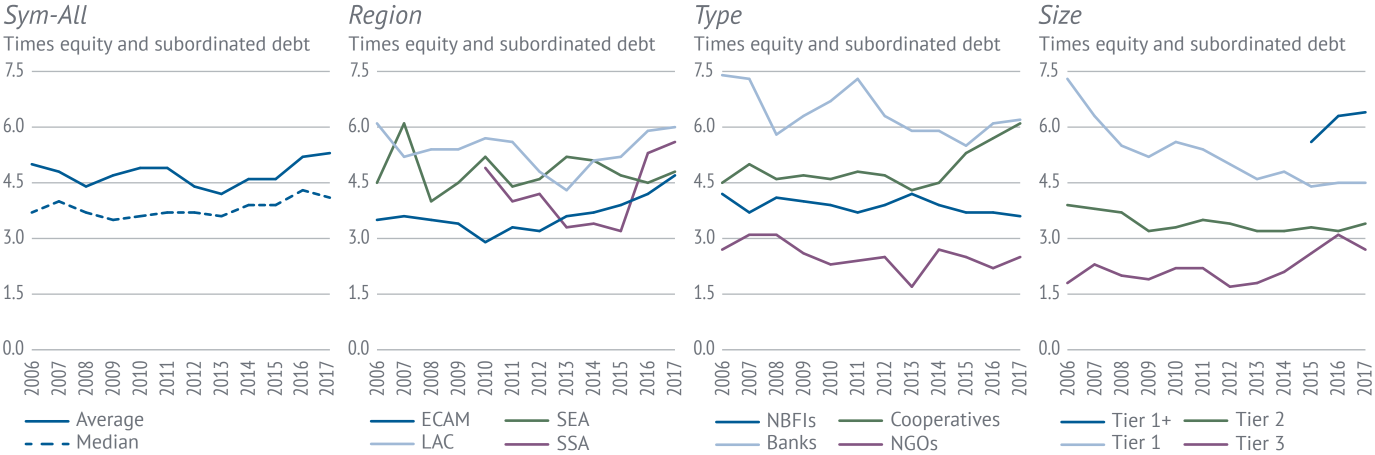
In general, however, it needs to be stated that the increasing costs over the period can largely be attributed to an increase in funding in local currencies, which by nature bear higher rates than USD funding. The shift of the sample portfolio into countries like India, entirely based in local currency, also accelerates this movement. Additionally, several countries have experienced increasing local money market and/or currency volatility, with increased hedging costs where applicable.

5.3 LEVERAGE

The debt-to-equity (D/E) ratio is a multiple of senior debt, savings and other liabilities over the contributions of shareholders and subordinated debt holders. Broadly speaking, it is used to compute the extent to which equity capital can be used to reimburse debt and savings in case of liquidation. As a result, this ratio serves as a measure of risk for potential lenders and investors.

The banking sector typically has the highest D/E ratio, with a unique access to savings and deposits and inter-banking and capital markets, coupled with strong regulatory and prudential supervision. According to the World Bank[50], in low- and middle-income countries, banks had an average D/E ratio of 7.7x in 2017. This is consistent with our sample value of 6.2x for commercial banks (Figure 30). It is nevertheless still far below what is usually seen in developed markets, showing a safer profile for the industry overall, something certainly confirmed by other FI types. Cooperatives have a similar funding structure, largely based on savings, and consequently a ratio (6.1x) close to that of banks. NBFIs, more dependent on borrowing, have kept a stable leverage over the period, ranging between 3.6x and 4.2x. NGOs, still largely reliant on grant capital, have the lowest ratio (2.5x in 2017).

Figure 30
Debt-to-Equity Ratio



50 Source: our own calculation based on the World Bank's capital to assets ratio (%), from the World Development Indicators database.

Similarly, larger institutions correlate with banking funding structures: tier 1+ institutions have a D/E ratio of 6.4x, about two times higher than tier 2 (3.4x) and tier 3 (2.7x) institutions. Interestingly, there is a noticeable material dip in leverage, in particular for tier 1 institutions, paralleling the global financial crisis, and its liquidity shortage, structurally lowering their D/E ratio and increasing prudent behaviors. This reduced leverage further explains, among other dynamics, lowered profitability for shareholders, as described in section 7.

Regional trends have fluctuated between 3x to 6x. LAC (6.0x), with its numerous cooperatives and large banks coupled with facilitating and business-oriented regulatory frameworks, is the region with the highest D/E ratio. SSA's ratio has increased exponentially in 2016-2017, mostly due to the addition of tier 1+ investees during the period. ECAM had the lowest ratio during 2006-2012 (3.4x) and was still the region with institutions that were the least leveraged in 2017 (4.7x). This is despite witnessing a linear increase starting in 2012 attributed to both the commodity crisis that led to losses eating into the equity and to the presence of more tier 1 banks. Asian FIs were the most volatile over the period, showing a decrease in D/E since 2015, which is attributable to the increase in Indian NBFIs in the sample as they have closely watched their leverage levels in the aftermath of the 2010 crisis in Andhra Pradesh.

5.4 BORROWING TYPES

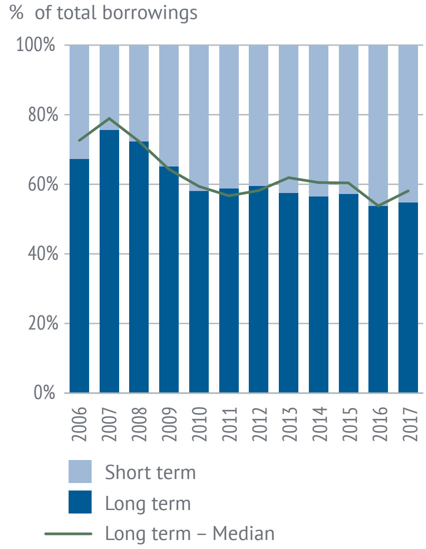
SHORT- VS LONG-TERM BORROWING

In general, the sample FIs have a larger proportion of long-term debt (above one year in maturity) in their balance sheet compared to short-term borrowing that is due within the coming year. That being said, there has been a drop in long-term debt percentages over the year, as illustrated in Figure 31, from 67% in 2006 to 55% at the end of the review period. The drop was faster in the 2007 to 2010 period, during which it was harder to borrow long term due to macroeconomic events. The rate has since stabilized somewhat, at between 55% and 60%. The median line for long-term borrowing has followed a similar path, from 73% in 2006 to 59% in 2010 to 58% in 2017.

With short-term borrowing generally acting as a bridge for working capital needs, FIs have in most cases relied on longer term maturities to finance their growth. This has been true in all regions as well, despite some contrasts: ECAM and LAC display smaller long-term debt values overall compared to SEA or SSA, the latter having the highest values. This is justified by the presence of more international and policy lending in SSA, which tend to take a longer view on their loans.

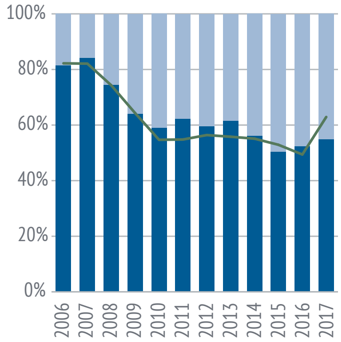
These observations remain largely similar and homogeneous across the tier breakdown of the sample FIs. In terms of FI type, cooperatives secured the highest fraction of long-term debt over the period (74% on average), whereas NGOs have linearly decreased their share of long-term debt towards the 50% mark, the lowest of all FI types.

Figure 31
Short- vs Long-Term Borrowings
Sym-All

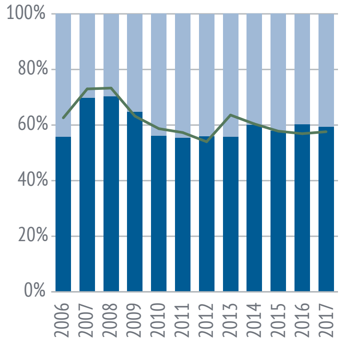


Region

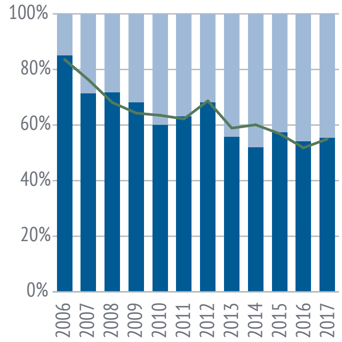
ECAM
% of total borrowings



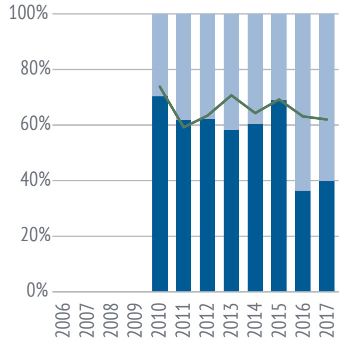
LAC
% of total borrowings



SEA
% of total borrowings

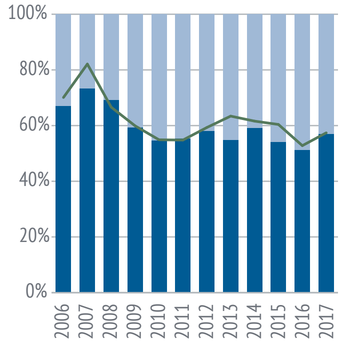


SSA
% of total borrowings

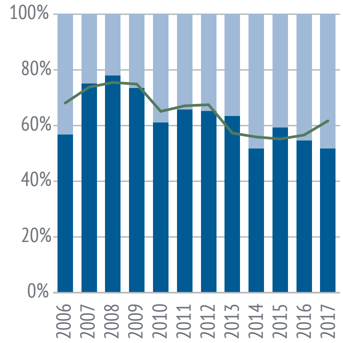


Type

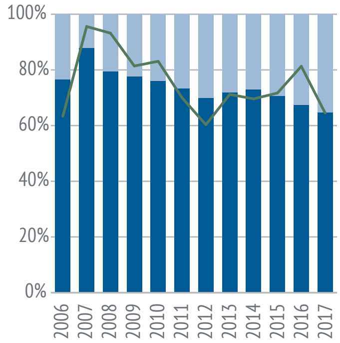
NBFIs
% of total borrowings



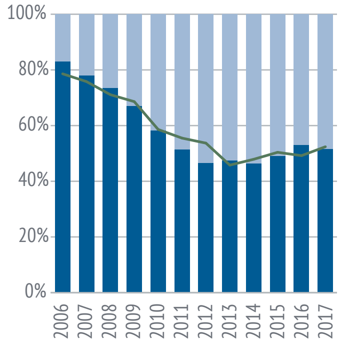
Banks
% of total borrowings



Cooperatives
% of total borrowings

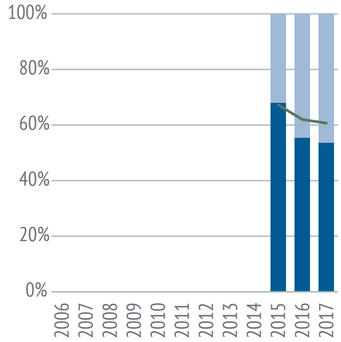


NGOs
% of total borrowings

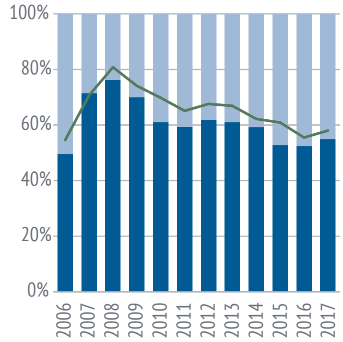


Size

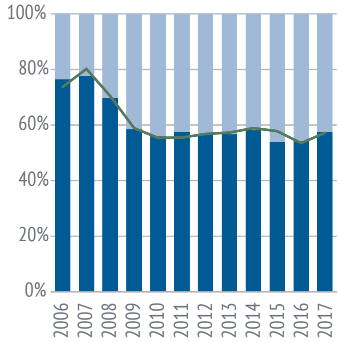
Tier 1+
% of total borrowings



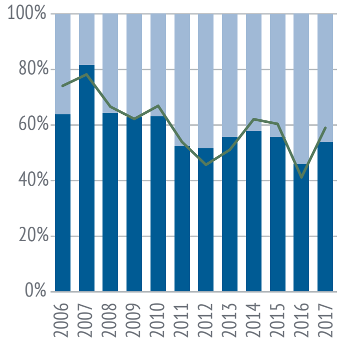
Tier 1
% of total borrowings



Tier 2
% of total borrowings



Tier 3
% of total borrowings



FOREIGN VS LOCAL BORROWING

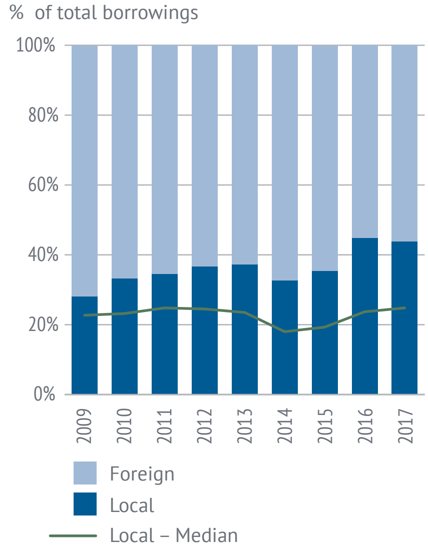
Foreign lenders account for a larger proportion of FI borrowing compared to local lenders. However, debt financing sourced in domestic markets has been trending upward since 2009, moving from 28% to 44% at the end of 2017 (Figure 32). The median domestic financing values exhibit a flatter line around a mean level of 23%. These findings coincide with the financial inclusion business case described at the beginning of this paper, with FIs maturing over time as more bankable institutions, surrounded by stronger regulatory frameworks that enable them to source commercial debt in their local markets, generally at more attractive rates than MIV financing.

Results for the regional samples strikingly match how inclusive finance markets have been moving forward, as highlighted in each regional profile. FIs in LAC, the most mature region for financial inclusion, have the highest proportion of local lenders – 49% on average since 2009. It is the region where the median (39%) has in most cases been highest despite a recent surge from FIs in SEA, driven by our pool of additional investees in South Asia since 2015. ECAM is the region where local funding is the lowest, at under 10% in most years despite larger institutions in 2016 and 2017 bringing the ratio up to 16% and 24% respectively. MIVs and DFIs continue to play a key role in facilitating FI debt for in the Caucasus and Central Asia, where these institutions were setup by international funding agencies. The case is similar within our pool of African FIs, which have a high proportion of foreign debt, increasingly reaching the 70% mark as of December 2017.

In terms of size, the larger the FI, the more likely it is to tap debt funding within its domestic country. This is well reflected in our universe of investees. Tier 1+ and tier 1 FIs have average domestic funding in the range of 46% and 40% respectively, whereas borrowing at tier 2 and tier 3 institutions remains principally funded by international lenders (72% and 83%).

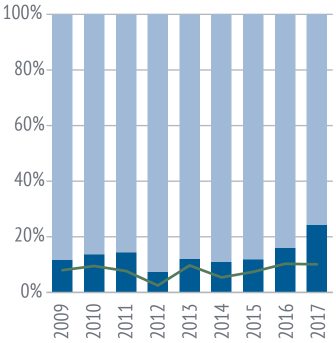
Banks have increased their ability to raise domestic financing considerably since 2009, at a CAGR of 10% per year. Today, slightly more than half of their borrowings are locally sourced, putting them in second position after cooperatives (about two-thirds of borrowings). NGOs have also experienced a CAGR of 10% in local borrowings, although the share of domestic debt has been diminishing over the past two years. The NBFI share of local borrowings has remained steady at around one-third over the period.

Figure 32
Foreign vs Local Borrowings
Sym-All

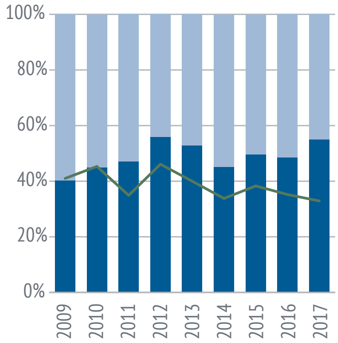


Region

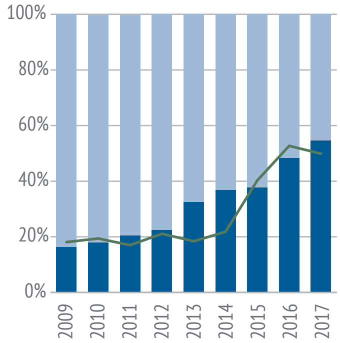
ECAM
% of total borrowings



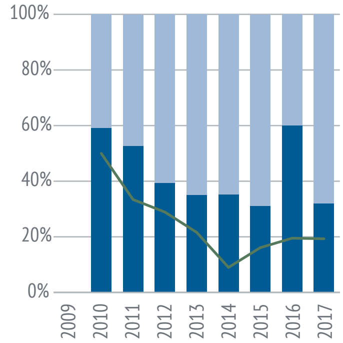
LAC
% of total borrowings



SEA
% of total borrowings

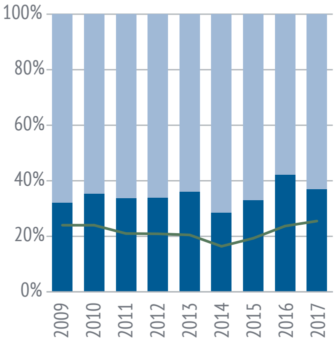


SSA
% of total borrowings

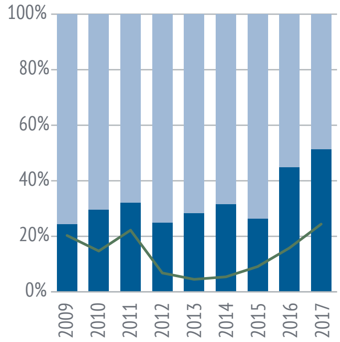


Type

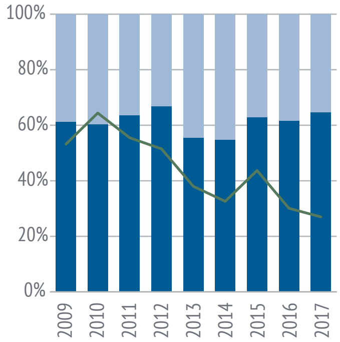
NBFIs
% of total borrowings



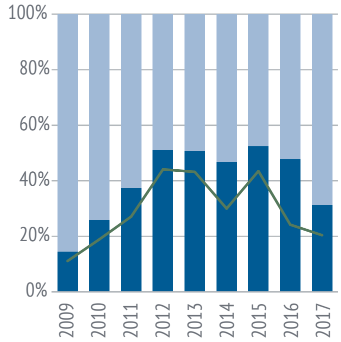
Banks
% of total borrowings



Cooperatives
% of total borrowings

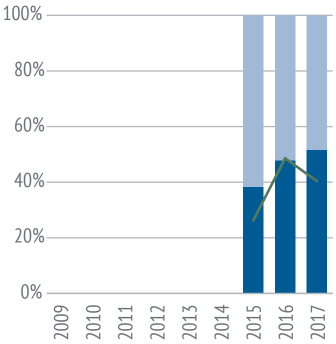


NGOs
% of total borrowings

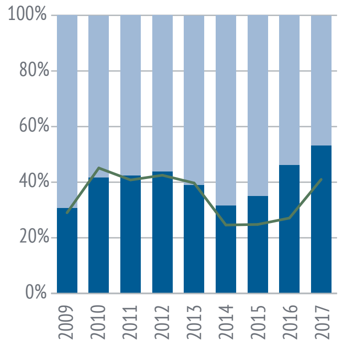


Size

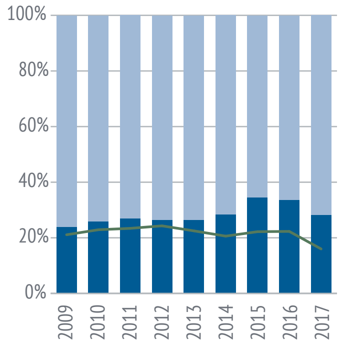
Tier 1+
% of total borrowings



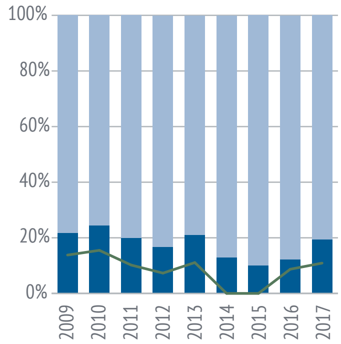
Tier 1
% of total borrowings



Tier 2
% of total borrowings



Tier 3
% of total borrowings



CONCESSIONAL VS COMMERCIAL BORROWING

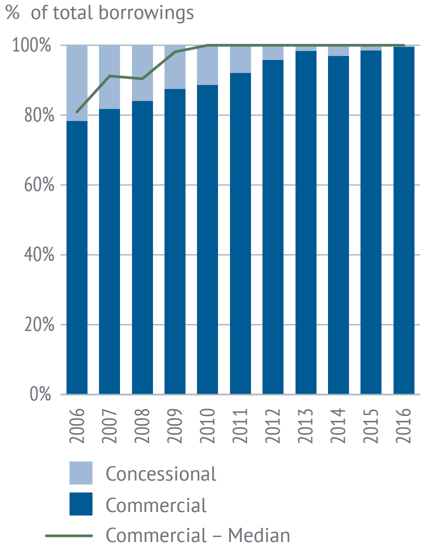
Concessional or soft loans are a type of debt financing with more lenient terms compared to commercial debt. Concessional loans usually bear below-market interest rates and can offer other generous characteristics, such as grace periods and longer maturities.

Concessional debt has nearly disappeared for our universe of investees. It used to account for one-fifth of total borrowing 12 years ago. By 2011, the ratio amounted to 8%; whereas it was at less than 1% at the end of 2016, which marked the end of our data collection period for this indicator (Figure 33).

All regions and every tier level exhibit the same downward pattern, with concessional borrowing hitting close to zero at the end of 2016.

Even for cooperatives and NGOs, which benefited from more lenient terms on 40% of their loans by 2006, this proportion diminished rapidly until 2011, at which time the ratio was already below 2%.

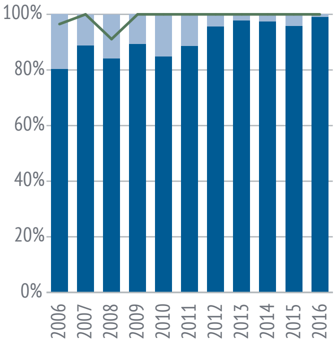
Figure 33
Concessional vs Commercial Borrowings
Sym-All



Region

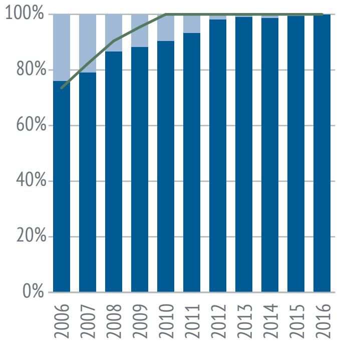
ECAM

% of total borrowings



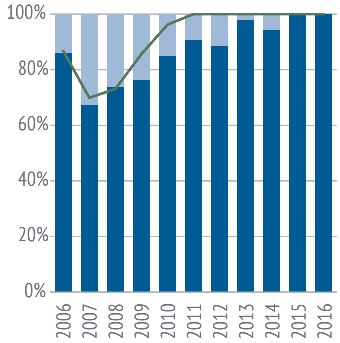
LAC

% of total borrowings



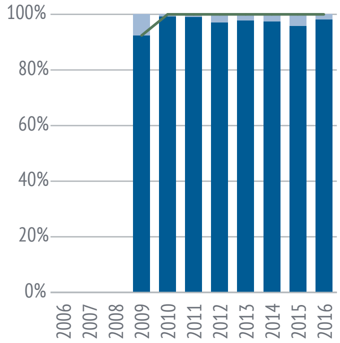
SEA

% of total borrowings



SSA

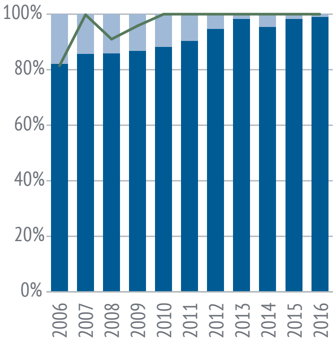
% of total borrowings



Type

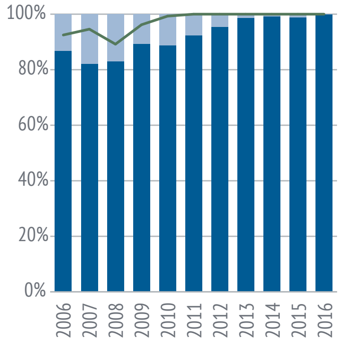
NBFIs

% of total borrowings



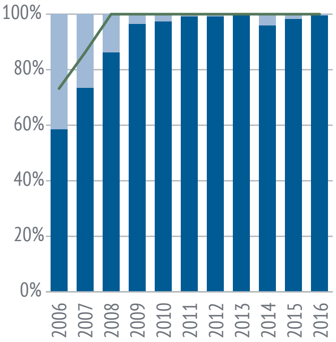
Banks

% of total borrowings



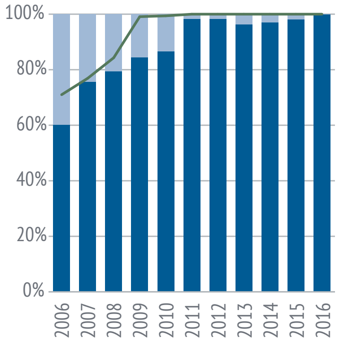
Cooperatives

% of total borrowings



NGOs

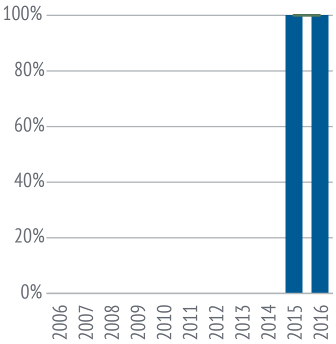
% of total borrowings



Size

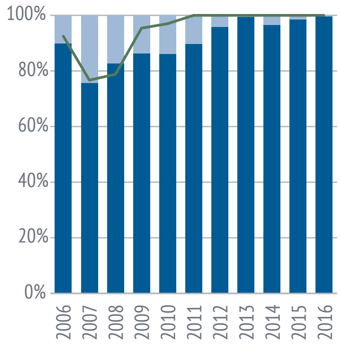
Tier 1+

% of total borrowings



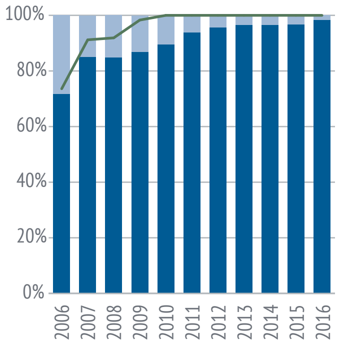
Tier 1

% of total borrowings



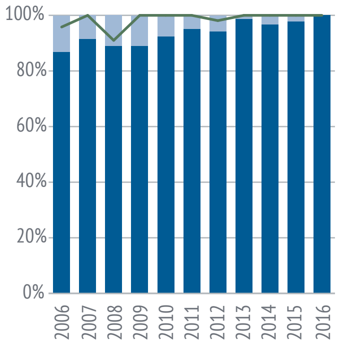
Tier 2

% of total borrowings



Tier 3

% of total borrowings



6. RISK

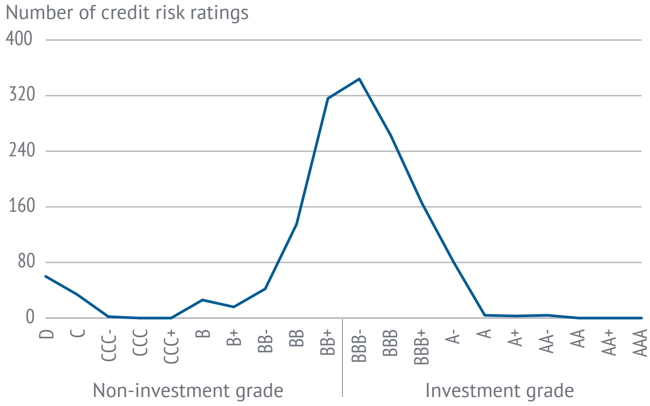
This section looks at how FIs identify, analyze and take precautionary steps to reduce the effects of uncertainty. Four risk management instrument categories are presented: those linked to liquidity, reserve adequacy, capital adequacy and currency exposure.

Since its inception, Symbiotics has performed and published over 1,400 credit risk ratings on FIs using its internally developed credit risk methodology. This methodology is based on eight dimensions, some of which will be presented in more detail in the following chapter. Our internal credit rating tool assesses the creditworthiness of an institution and acts as a guide supporting our investment decisions.

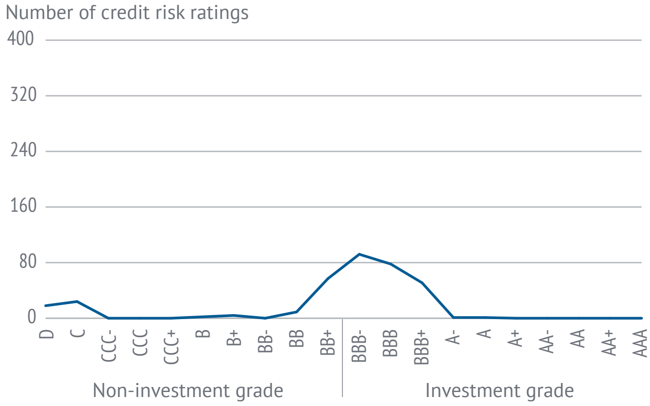
Most of our partner FIs have been graded between BBB- (moderate credit risk) and BB+ (material credit risk), with variations across the four regions (Figure 34).

Figure 34
Credit Risk Ratings

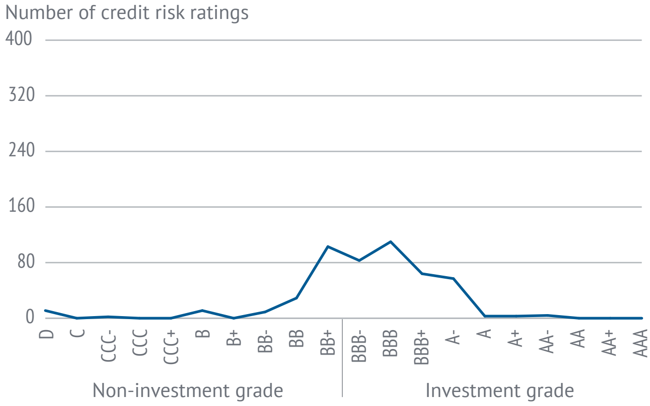
Sym-All



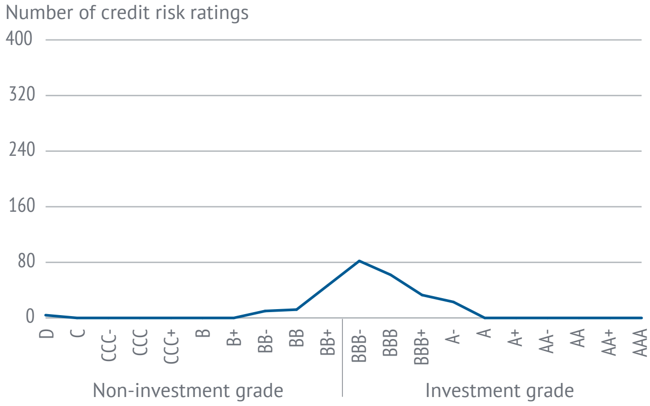
ECAM



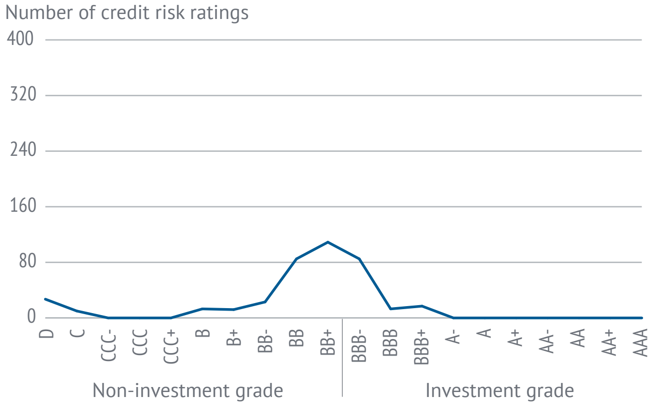
LAC



SEA



SSA



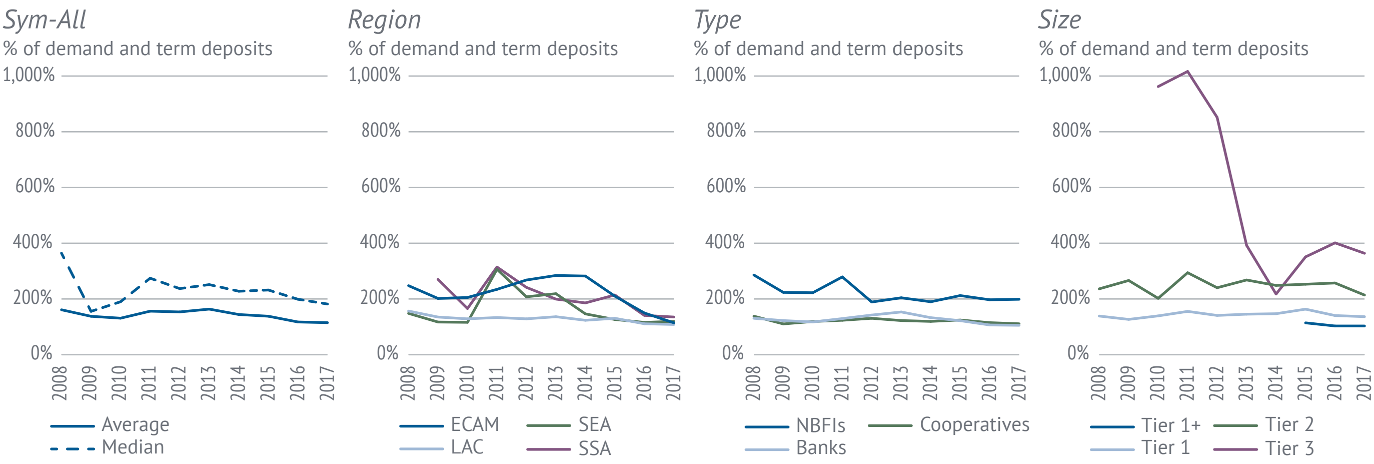
6.1 LIQUIDITY

LOAN-TO-DEPOSIT

The loan portfolio of an FI is usually financed, beyond equity, by borrowings, savings and deposits, and sometimes capital markets. Deposits and savings are usually shorter in term and therefore theoretically less predictable and more volatile, not matching the turnaround rate of the portfolio. However, experience shows that in times of turbulence, deposits are often quite stable, more so than borrowings, particularly from foreign lenders, which tend to shrink, albeit at a less strident pace. Therefore, the loan-to-deposit ratio is a useful measure of the risks taken by FIs counting on savings and deposits to finance loan portfolio growth. A ratio of 1:1 implies that an FI lends one dollar for every dollar it receives in deposits, which is already quite an aggressive model, notwithstanding the fact that regulators would ask them to put up to 20% of savings and deposits in liquid reserve accounts.

The ratio is obviously only relevant for FIs that accept deposits – in our case banks and cooperatives, less so NBFIs, and not NGOs. Results of the full sample will be biased by those institutions that report very few deposits, whether

Figure 35
Loan-to-Deposit Ratio



it be due to the absence of a legal framework allowing institutions to raise deposits, a lack of capacity (failed attempt to increase savings) or because some deposits are simply used as collateral for loans. With that in mind, and in order to sensibly approach the liquidity analysis of our FIs, we have removed NGOs and non-deposit taking NBFIs entirely from the Sym-All sample for the sole purpose of this indicator.

The loan-to-deposit ratio has averaged 142% for Sym-All. The trend has been decreasing since 2011, both for the weighted average and median lines. Still, the loan-to-deposit ratio is above 100%, signaling a bias towards non-bank financial institutions and a risk appetite somewhat on the higher side but decreasing overtime to acceptable levels.

Banks and cooperatives have the lowest multiples, i.e. the highest liquidity, as expected, at 126% and 121% on average respectively since 2008 (Figure 35). In terms of regions, Africa, ECAM and Asia are more volatile, whereas LAC exhibits a stable trend.

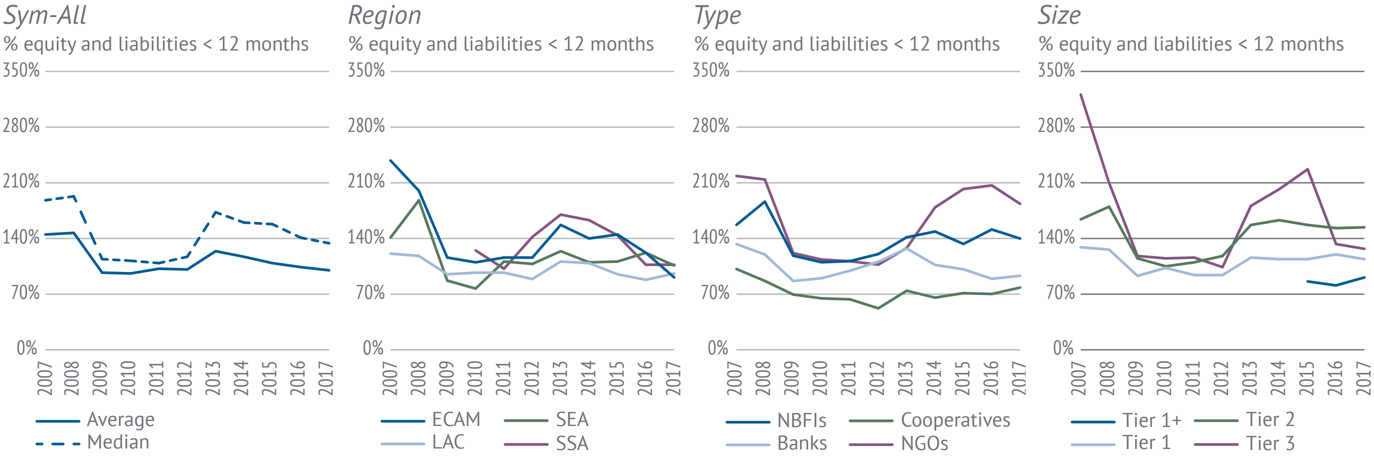
CURRENT RATIO

The current ratio – short-term assets over short-term liabilities – is a good proxy for the maturity mismatch on an FI's short-term assets, measuring its ability to pay back its short-term creditors (both lenders and depositors). In theory, a current ratio of below 100% (more short-term liabilities than short-term assets) would indicate difficulty to pay off obligations if they come due.

The current ratio of the sample FIs has historically been above 100%. The median value is higher than the weighted average every year which indicates that smaller institutions tend to be much more liquid or safer in terms of potential maturity mismatch between assets and liabilities. Figure 36 shows that tier 1+ is below tier 1, which is below tier 2 and tier 3 institutions.

Cooperatives have the lowest current ratio, at under 100% at the end of every year, even for the median, given their special membership savings business model, often with lower equity capitalization. Although not immune to liquidity risks, the cooperative model has however proven resilient in times of crisis

Figure 36
Current Ratio



(such as the Ecuador banking crisis in 1999), due to the captive nature of its savings clientele. Banks, especially the large ones (tier 1+) have a low current ratio because, on the one hand, their liability structure is more short term (deposits and savings) and, on the other hand, they see less portfolio rotation on the assets side and hence hold fewer short-term assets. This pattern is well illustrated in the figure by institution size. More precisely, the current ratio of tier 1+ FIs has averaged 86% in the 2015-2017 period, pointing to a theoretically higher vulnerability to cases of bank runs; although in reality, we have witnessed only very rare cases of this in past crisis times in the MSME financing market. Lower tiers and less-regulated institutions tend to fare very well from a current ratio standpoint, with a lot of longer-term liabilities compared to rapidly turning short-term microcredit portfolios. Intuitively, one would conclude that they are therefore a safer bet than large banks from a liquidity standpoint. Smaller institutions that do not take deposits have more time to anticipate liquidity stress; but when they foresee difficulties, they are often already at a point where preserving the confidence of their refinancing source options is challenging.

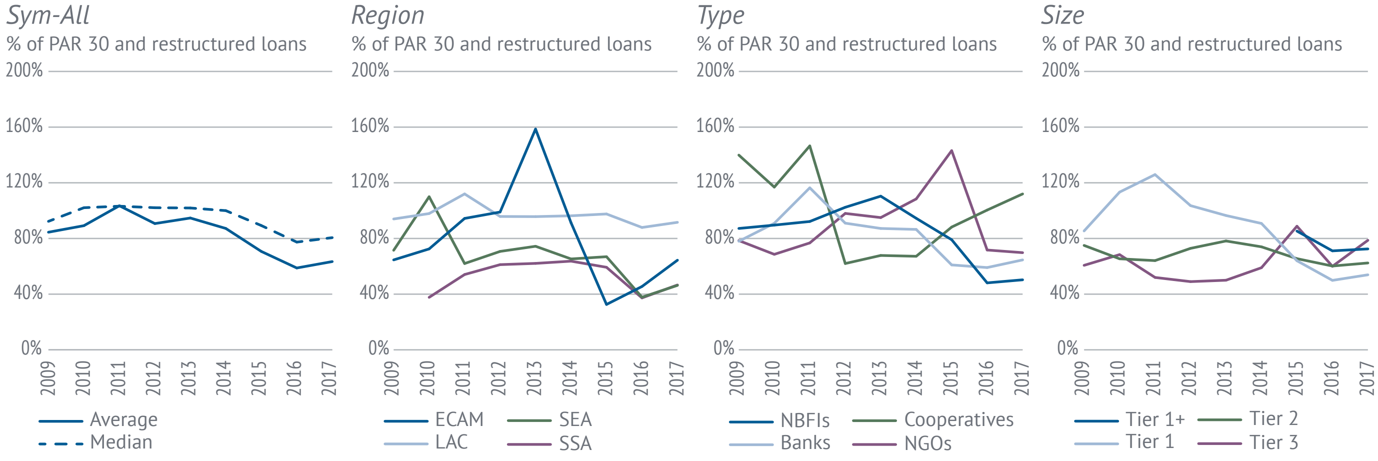
6.2 RESERVE ADEQUACY

RISK COVERAGE

The risk coverage ratio illustrates what percentage of the PAR30 (including restructured loans) is covered by an institution's actual loan loss reserve. The risk coverage ratio roughly interprets how prepared an FI is to absorb losses, how much its past profit and loss statements have already 'digested' potential future losses. We should, however, note that for banks and leasing companies that have hard collateral on a large part or on the totality of their portfolio, PAR90 is usually the preferred measure of portfolio at risk and is also where regulatory requirements in terms of prudential ratios focus. Consequently, the risk coverage ratio over PAR90 would provide better information on the adequacy of their provisioning levels. For the sake of this study, we have, however, concentrated on the risk coverage over PAR30, which has historically been the standard measure of portfolio quality in the microfinance sector.

From 2009 onwards, results for the full portfolio indicate a decreasing trend for both the weighted average and yearly medians that amounted for most part to close to 100% during much of the period under review, at least until 2014 (Figure 37).

Figure 37
Risk Coverage



The overall decline shows that loan loss reserves have grown at a slower pace than the growth witnessed on PAR30. This declining trend is partly driven by the increasing number of banks and leasing companies that we have onboarded in recent years. Indeed, such institutions usually have stronger collateral backing their portfolio and book provisions on the basis of post-90-day arrears (see above explanation). Another explanation for the downward trend after 2014 is the fast deterioration of asset quality in directly or indirectly oil-dependent economies during the 2014-2016 crisis. In some cases, reserve adjustments had been made beforehand and were well planned; but when PAR30 increased substantially, further adjustments were not always timely. Lastly, there has been more sophistication in provisioning policies, which has been built upon increasing years of experience. Indeed, in general, the 100% value of the risk coverage ratio is not necessarily a golden rule. Efficient risk management practices suggest incremental provisioning according to the aging of arrears.

Region-wise, risk coverage is lowest in SSA, followed by SEA and ECAM. LAC is linearly positioned at around 100%, suggesting a more mature and stable market environment. In SEA, the weighted average is consistently very different from the median as some very large banking or leasing institutions pull it downwards. However, in general, FIs from large markets in the region, such as India or to a lesser extent Cambodia, cover PAR30 well with reserves. As evoked above, when the crisis hit FIs in ECAM in 2014 and beyond, the PAR30 grew at such a pace that the additional provisions were not enough and covered the overall risk at less than 40% in 2015. The risk coverage in the region has since increased in 2016 and 2017. All FI types except for cooperatives exhibit downward trends, with NBFIs ending 2017 with a 50% value. However, the median shows a much different picture, at 82%, implying that the larger NBFIs pull the overall sample average down.

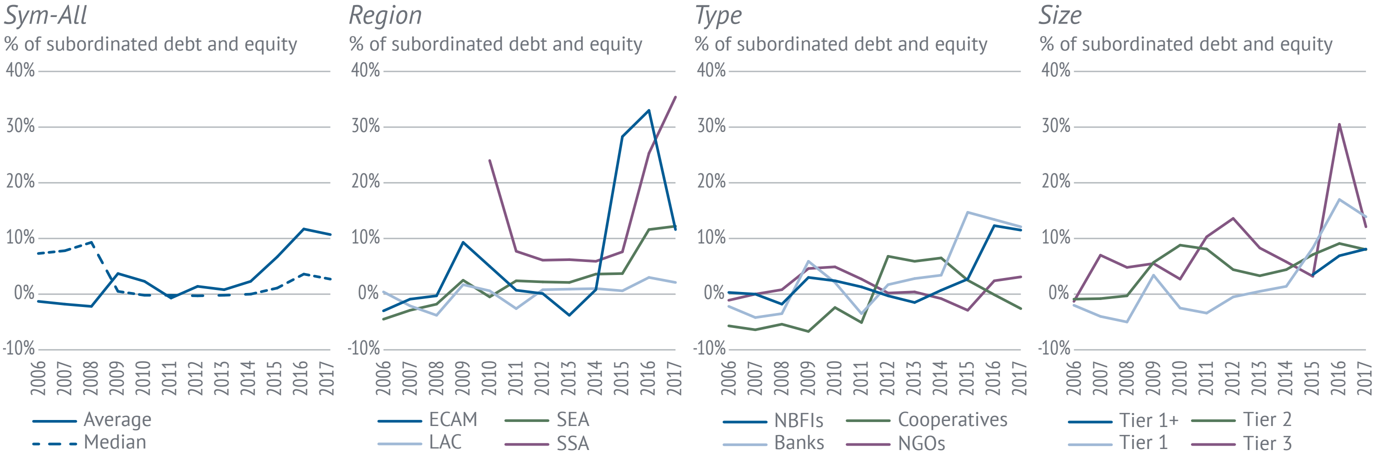
It is important to note that similar to write-offs, a provision is an accounting practice that might have recommendations or guidelines based on regulatory frameworks. This is more the case for regulated institutions than for unregulated institutions, where provisioning is more discretionary. Hence, comparisons of risk coverage ratios across segments and regions is challenging and have to be carefully interpreted.

UNCOVERED CAPITAL RATIO

The uncovered capital ratio offers a complementary angle of analysis to the reserves adequacy by reflecting the vulnerability of the FI against potential future losses in terms of solvency. More precisely, the uncovered capital shows how much the PAR30 (including restructured loans) is left uncovered by loan loss reserves and translates it as a percentage of an FI's equity and subordinated debt. The nuance with risk coverage ratio is important: an FI with a 20% risk coverage ratio (seemingly bad) over a PAR30 of 1% and equity representing 50% of the assets would fare largely better than an FI with a 90% risk coverage ratio (seemingly better) over a PAR30 of 25% and equity representing 10% of the assets.

A low ratio therefore suggests less impact on solvency in cases where losses come to the fore within or beyond what is currently provisioned, enabling it to meet any unforeseen events. A negative ratio indicates even more prudent behavior.

Figure 38
Uncovered Capital Ratio



For the total sample, the weighted average has tended towards the zero mark until 2014, after which uncovered capital has increased, reaching a still relatively reasonable peak of 11.7% in 2016. The median is lower in most years, except during the first three years of observations (Figure 38). Uncovered capital has been highest in SSA in most years, reaching 35% in 2017. The curve has also been trending upwards for Tier 1 FIs since 2014, suggesting that FIs are struggling in markets affected by the commodity prices shock. Banks and NBFIs are the ones that have gone above the 10% mark most recently. For banks, this is because they generally put more importance in their PAR90 ratio relative to their PAR30, as stated above. This case is similar for leasing companies, which in our sample are setup as NBFIs.

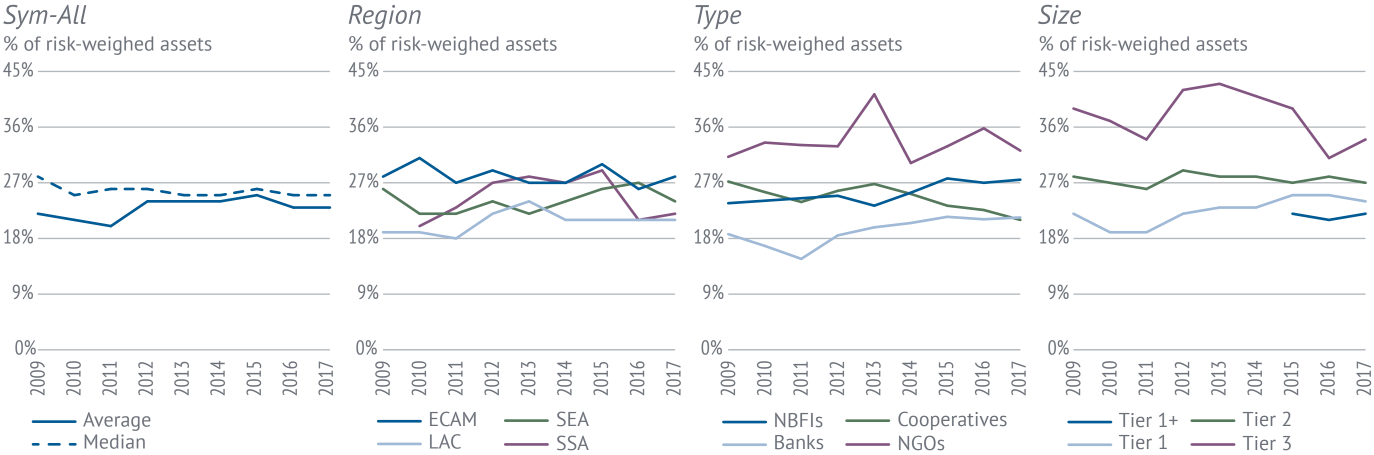
LAC FIs have had the most effective risk management, exhibiting a relatively linear trend at around zero. The demonetization in India triggered above-normal PAR30 levels in 2016-2017, for which FIs in the region did not have enough loan loss reserves, which put upward pressure on their uncovered capital ratio.

6.3 CAPITAL ADEQUACY

The capital adequacy ratio (CAR) mirrors somewhat the level of leverage measured by the debt-to-equity ratio in Figure 30. CAR assesses the level of capital available compared to the level of risk assigned to its assets. It measures the institution's capital cushion to absorb a reasonable amount of losses before it becomes insolvent and consequently loses depositors' funds. A high ratio provides comfort for depositors and debt providers in case of high losses, signaling that the FI is adequately capitalized to face downturns.

For regulated FIs, banking authorities usually set minimal capital adequacy ratios. CAR in low- and middle-income economy banks has averaged 10.8% over the 2010-2017 period[51].

Figure 39
Capital Adequacy Ratio



51 World Bank. 2018. *World Development Indicators.*

In comparison, Symbiotics partner FIs have maintained higher CAR levels, averaging about 23% since 2009 (Figure 39)[52]. Regional differences exist with ECAM on the higher end and LAC on the lower end. Again, the increasing sophistication of FIs from LAC in the sample, both due to the longer history of the microfinance sector and changes in the sample itself (more banks), has triggered a greater taste for leverage and maximizing the value of equity. All four regions fall within 18% to 31%, which is again quite safe. More distinctions are observable when segmenting the sample by type or size. NGOs have CARs higher than 30% as their capital structure is usually financed with more equity due to limited debt access and often no savings licenses. The CAR for cooperatives has been decreasing since 2013, mirroring their increased leverage as observed with the debt-to-equity ratio. Increasing equity to cope with asset growth can be challenging for them due to the very nature of their capital structure. Banks have had the lowest CAR levels, in line with risk profile and regulatory thresholds. This is reflected when segmenting FIs by size: the larger their size the smaller their CAR levels.

52 Note: The methodology to derive CAR is not always similar between samples.

6.4 CURRENCY RISK MANAGEMENT

Currency risk means the risk linked to a misbalance between the volume of a specific currency in the assets and in the liabilities of a financial institution. Concretely, if a financial institution has more liabilities in USD compared to its assets, it will suffer from a depreciation of its local currency against the USD. Indeed, when adjusted for that depreciation, liabilities in USD will become larger in local currency terms, while assets denominated in local currency will not be adjusted, leading the institution to book losses. When sourcing debt from foreign investors that tend to lend in hard currency, financial institutions may effectively face this risk. Currency risk can actually become a financial institution's largest risk and its largest source of losses if badly managed.

Still today, the majority of debt financing from MIVs is in hard currency, i.e. USD or EUR, at approximately 66% of total debt sourced from these MIVs. However, it has become increasingly common for MIV managers to have a significant portion of their loan portfolio in the local currency, either in an unhedged strategy or hedged back to their base currency, using market instruments for liquid foreign exchange and specialized instruments (such as TCX or MFX) for illiquid currencies.

CURRENCY MISBALANCE TO EQUITY

Analyzing the open currency positions of FIs (assets in foreign currency minus liabilities in foreign currency) compared to their level of capital (equity + subordinated debt) offers a measure of their vulnerability to currency movements in terms of solvency. The more the ratio moves away from zero, be it upwards or downwards, the more the FI can be impacted by domestic currency fluctuations vs that of other (mostly hard) currencies. From a pure currency risk standpoint (notwithstanding comments made in the next paragraph), however, the relationship is not linear: an open currency ratio of 30% (usually meaning the institution is long in hard currency) is preferable to an open currency ratio of -30%. Indeed, the former expresses a vulnerability to an appreciation of the local currency, which is usually less rapid and sudden than a depreciation.

Figure 40 illustrates this ratio for the sample FIs.

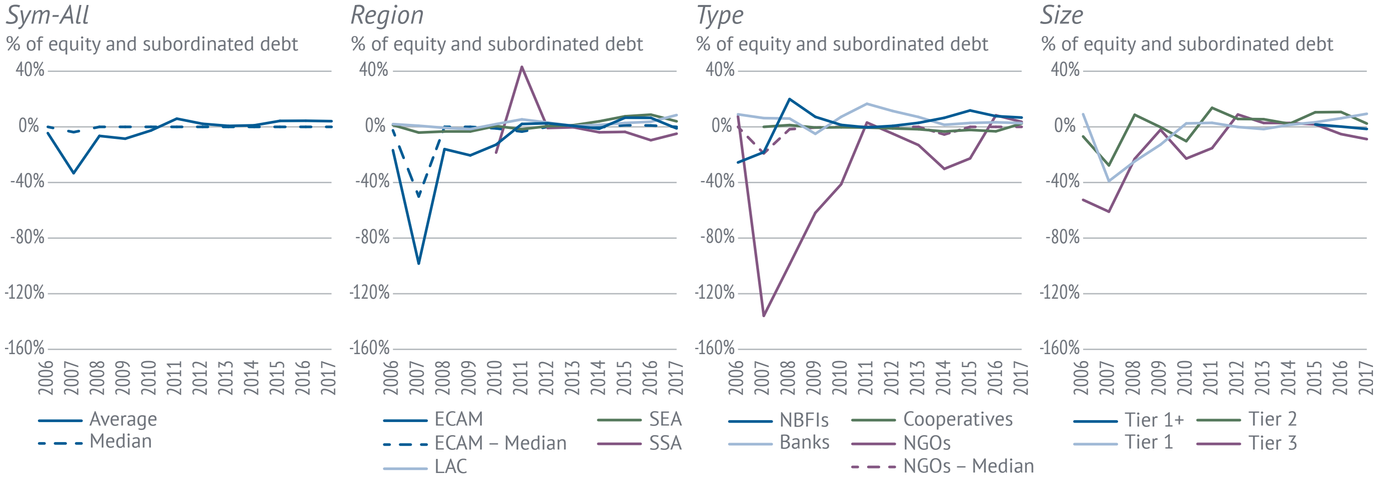
The median value for the full sample equals 0% in every year besides 2007, emphasizing a neutral foreign currency position, a sign of effective currency risk management. The weighted average shows more variance around the zero line, with initial observations being negative until 2010 and then positive since 2011, the latter meaning that FIs from the sample have more assets in foreign currency compared to liabilities in foreign currency. In theory, being long on the dollar (or short in local currency) would imply that an FI could bet on an appreciation of the USD in those years to positively impact its profitability.

Moreover, as stated above, a risk of sudden and fast appreciation of the local currency is moderate. However, large volumes of hard currency in FI assets are often linked to a loan portfolio being indexed to a hard currency. In other words, in such a case, an appreciation of the USD against the local currency would probably have negative repercussions on the capacity of the FI's borrowers to repay the loan, particularly since most of the time, their earnings are in local currency. In turn, this would affect FI portfolio quality.

The aftermath of the 2008 crisis that led to the substantial depreciation of emerging and frontier market currencies brought to light the negative impact that currency misbalances can have on profitability. FIs in ECAM took a hit in 2007 (-33.3%), which led to an overall industry awareness about currency risks and the subsequent creation by DFIs of specialized FX hedging facilities for the microfinance sector.

LAC and SEA exhibit stable lines near zero. In these markets, hedging has always been more readily available, even before the creation of specialized facilities, allowing MIVs to lend in local currency. Also, quite a few economies in these regions are purely dollarized, therefore contributing to bringing the ratio closer to zero. SSA had a high positive ratio at the end of 2011 (due mainly to the sample effect) before dropping back to negative territory in the following years.

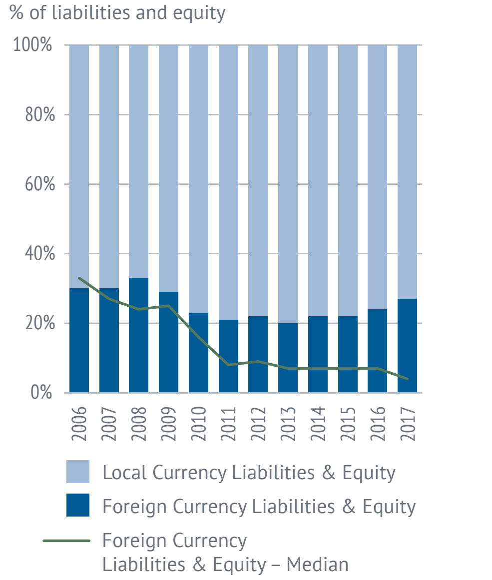
Figure 40
Currency Misbalance to Equity



CURRENCY BREAKDOWN OF LIABILITIES AND EQUITY

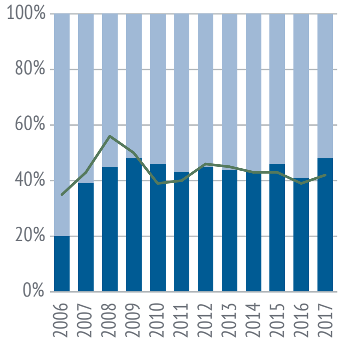
Figure 41, which is linked to the currency misbalance ratio, shows the currency breakdown (foreign vs local) of liabilities and equity. Local currency liabilities are the norm, with an average of 75% since 2006. The ECAM region has the smallest funding volumes in local currency, at under 60% since 2008, while the SSA region's proportion of local currency liabilities is the greatest (93%). In ECAM, the hedging of foreign currency indebtedness is sometimes made available by central banks, which use relatively substantial reserves to offer these facilities. In SSA, FIs have a wider choice of – more subsidized, less for-profit – financing options that allow them to demand mainly local currency. In terms of FI types, cooperatives have most of their liabilities and equity denominated in local currency even though this proportion has been trending downwards in recent years. NGOs have also sourced most of their funding in local currency. Banks, by nature, are able to play a little bit more with different products and services, allowing them to more actively manage their currency mismatch, which explains why they have greater foreign currency liabilities.

Figure 41
Currency Breakdown of Liabilities and Equity
Sym-All

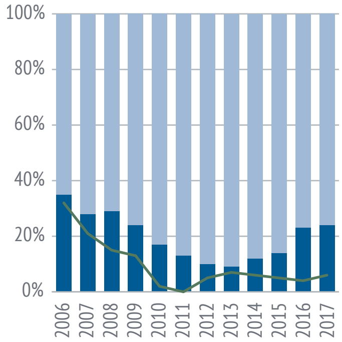


Region

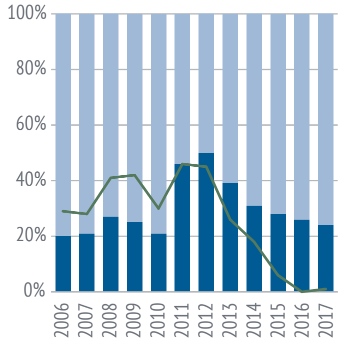
ECAM
% of liabilities and equity



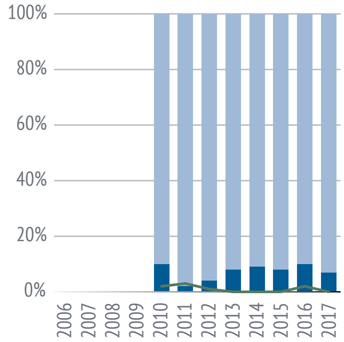
LAC
% of liabilities and equity



SEA
% of liabilities and equity

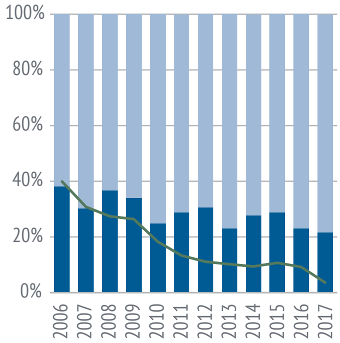


SSA
% of liabilities and equity

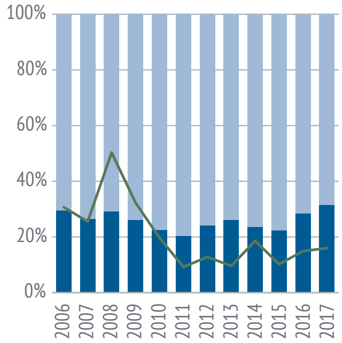


Type

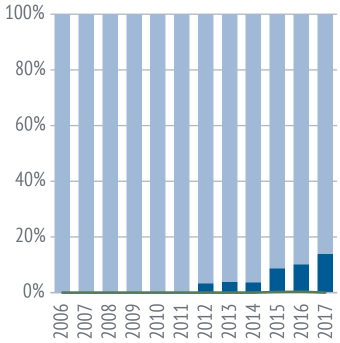
NBFIs
% of liabilities and equity



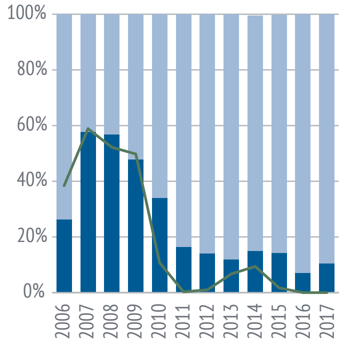
Banks
% of liabilities and equity



Cooperatives
% of liabilities and equity

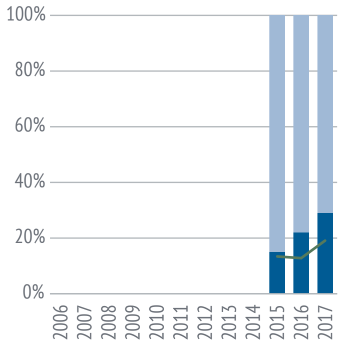


NGOs
% of liabilities and equity

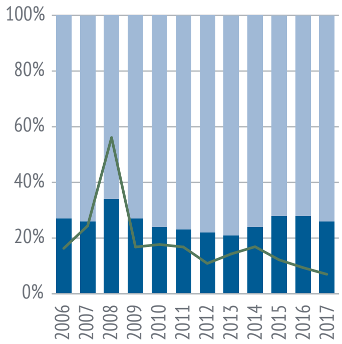


Size

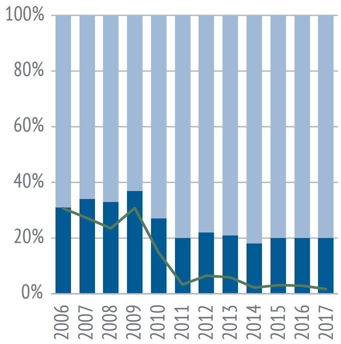
Tier 1+
% of liabilities and equity



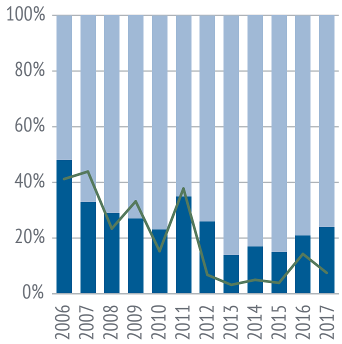
Tier 1
% of liabilities and equity



Tier 2
% of liabilities and equity



Tier 3
% of liabilities and equity




Glitter

7. RETURN

This last section reviews the level of financial returns generated by our pool of FIs. The chapter illustrates how a business model based on financial inclusion and social impact can generate sustainable financial returns.

Positive financial margins and profitability are often pre-requisites for FIs to achieve growth (and thus higher outreach), access cheaper sources of funding, and eventually enter new underserved markets with innovative products and services.

7.1 INCOME COMPOSITION

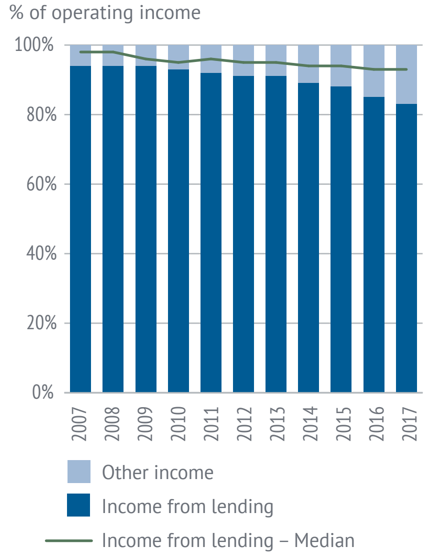
Lending has traditionally been by far the principal source of income for FIs. Nevertheless, the fraction of income coming from other sources (such as investments and other services) has been continuously growing over the years, at an average rate of 10% per year. Today, the volume of income coming from alternative sources amounts to 17% of total operating income for the full sample (Figure 42). The lower median value (7.5%) indicates that the majority of FIs still focus on lending, while some substantially larger and more diversified institutions push the average upwards.

The proportion of other income is similar across regions, with a maximum of 23.6% in the ECAM region (whose value has grown at an annual average of 20% since 2007) and a minimum of 14.3% in SEA. Typically, in ECAM, there is a higher proportion of banks that can offer various fee-based services (i.e. remittances, foreign exchange) to leverage their clients' assets. In SEA, and particularly in India, lending often remains the entire focus of FIs that have grown as traditional microfinance institutions.

An analogous evolution appears when looking at FIs by their type. Unsurprisingly, banks rely the most on this alternative income (22.6%), at an average growth per year of 10% since 2007. Meanwhile, NGOs have neither the capacity nor the need to leverage their lending activities and diversify income sources. For them, lending still represents 92.7% of income and the rest may often consist of grants for various purposes.

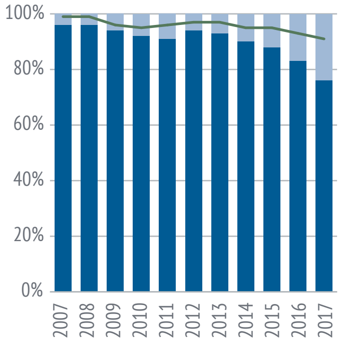
Still unsurprisingly, the bigger the FI, the more likely it will develop other business activities. Looking at the median shows that half of tier 1+ FIs generate more than 24.3% of their income from such alternative activities. However, tier 3 institutions only get 6.5% of their revenues from activities not related to lending.

Figure 42
Income Composition
Sym-All

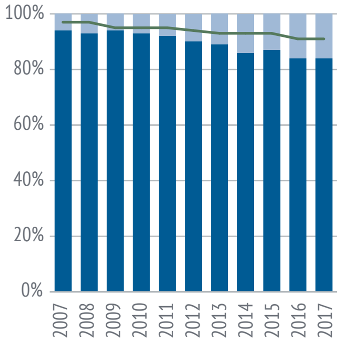


Region

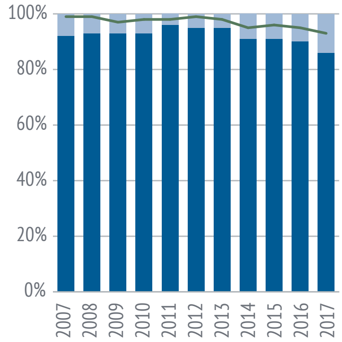
ECAM
% of operating income



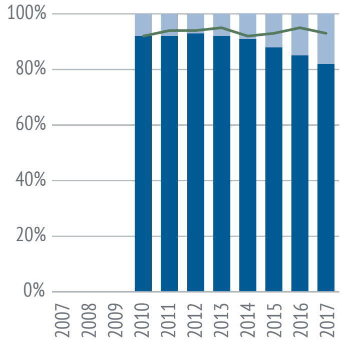
LAC
% of operating income



SEA
% of operating income

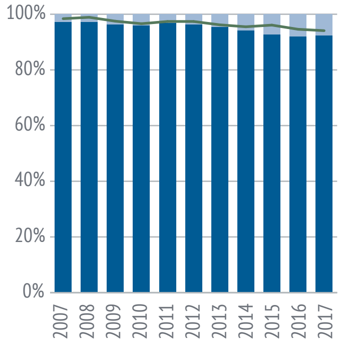


SSA
% of operating income

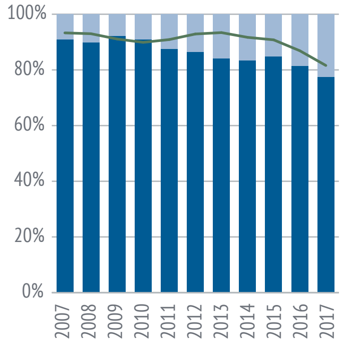


Type

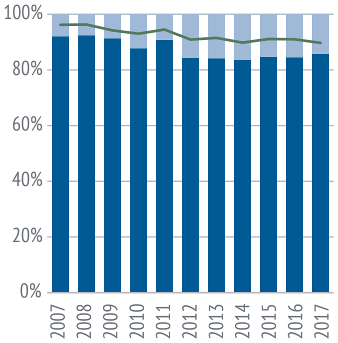
NBFIs
% of operating income



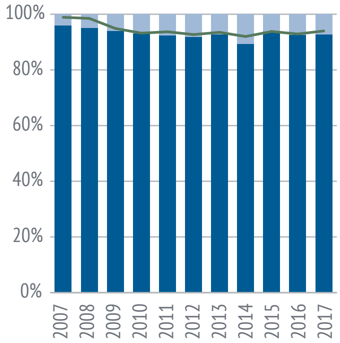
Banks
% of operating income



Cooperatives
% of operating income

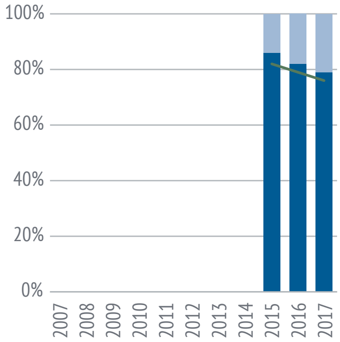


NGOs
% of operating income

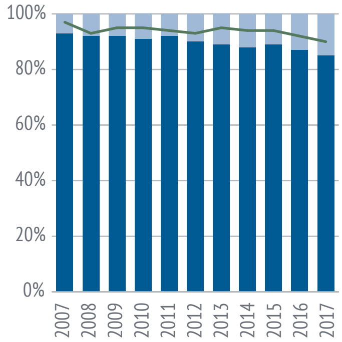


Size

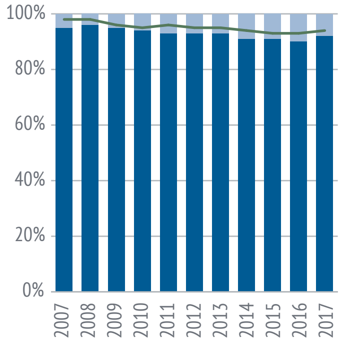
Tier 1+
% of operating income



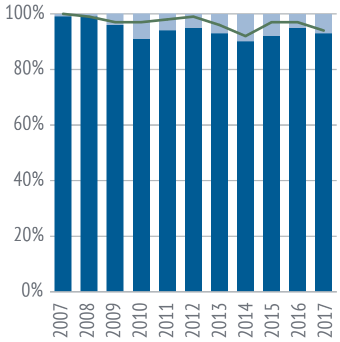
Tier 1
% of operating income



Tier 2
% of operating income



Tier 3
% of operating income

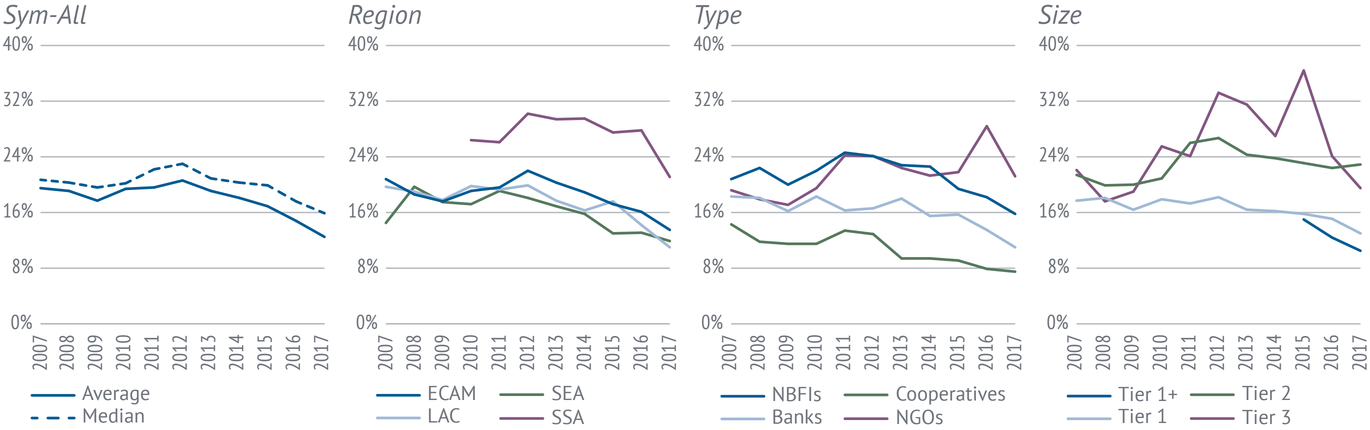


7.2 NET INTEREST MARGIN

The net interest margin is computed by subtracting the costs of funds (Figure 29) from the portfolio yield (Figure 20). In our investment universe, net interest margins decreased from 19.5% in 2007 to 12.5% in 2017 (Figure 43). This drop comes from the continuous decline in portfolio yield since 2012, while the cost of funds has remained stable over this period, if not grown.

The largest net interest margins are seen in SSA, where yields are also high (especially in some specific markets, such as Nigeria), with a 21.1% average value. FIs in LAC, which benefit from the lowest cost of funds, still have the tightest net interest margins on average (11.0%), essentially due to highly competitive lending markets and the resulting pressure on yields. SEA and ECAM, which borrow at higher costs than SSA while having a lower portfolio yield, have seen their net interest margin shrink every year since 2012, down to 13.5% by 2017.

Figure 43
Net Interest Margin



Obviously, some of the regional trends mentioned above are also influenced by the evolution in FI types. Cooperatives lend to their own members at low rates and finance their assets through the same members' savings and deposits. Consequently, they have the smallest net interest margin (7.5%). Banks follow (11.0%), operating in higher segments of the lending market that are quite competitive and at substantially inferior interest rates than on the lower segments, which offsets their ability to finance their assets at moderate cost. Although this might sound contradictory to their non-profit purpose, NGOs have historically had the highest net interest margin. In this respect, it is necessary to remember that operating and provision expenses are not included in the calculation of this margin. With a higher proportion of their portfolio invested in microcredit as well as in more remote, riskier areas, NGOs need to cover those higher expenses (Figure 21).

Tier 3 institutions, because of their small size, similarly have to cover proportionally higher administrative costs. Tier 1+ and tier 1 FIs, on the contrary, although they have the smallest net interest margin, can effectively cover such costs thanks to the economies of scale brought by their high lending volumes.

7.3 PROFITABILITY

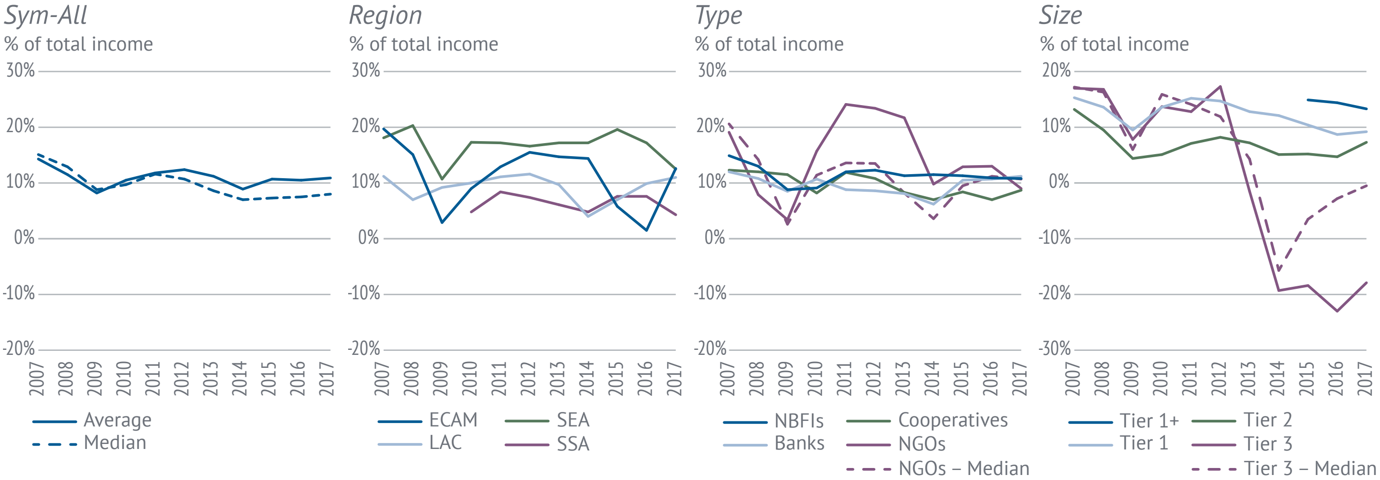
Profitability can be assessed through a number of indicators. This section illustrates three of them: net profit margin (NPM), return on assets (ROA) and return on equity (ROE).

NET PROFIT MARGIN

NPM is obtained by dividing net income by total revenue. It is an indicator of the capacity of an FI to generate revenue while still limiting all sources of expenses (financial, operating, provision, non-operating) that go with that revenue generation. It does not include any element of asset size or leverage in the calculation.

When looking at the NPM (Figure 44), banks and NBFIs were the most profitable type of institutions at the end of 2017 (11.2% and 10.8% respectively), while cooperatives (8.7%) were still able to reach respectable margins. All these types of institutions need to optimize operating efficiency and limit provision expenses (through adequate but efficient methodologies and controls), both endogenous elements of profitability that they can largely

Figure 44
Net Profit Margin



(but not fully) influence, contrary to the sources of revenue (interest rate on portfolio and fees on other services) and financial expenses that are largely driven by market forces. While it is the fact that banks and most NBFIs are profit-oriented that incentivizes them to optimize efficiency and limit provisioning, for cooperatives the objective is to keep their financial margin as low as possible as they serve their own members. NGOs have fewer incentives to limit costs. In addition, they have a greater dedication to more risky market segments and lower income, often more remote, populations. Therefore, NGOs have a much more volatile trend, even witnessing a negative ratio in 2009 driven by the microfinance crisis in Bosnia & Herzegovina and Nicaragua.

In terms of size, the bigger the institution, the better able it is to benefit from economies of scale and to develop some alternative sources of revenue; and the more leveraged it is. As such, tier 1+ FIs outperform the benchmark (13.3%), followed by tier 1 (9.3%) and tier 2 (7.3%). Tier 3 institutions have been generating negative profit margins for five years. Their high impact, by providing the very bottom of the pyramid with access to finance, explains why they remain attractive to donors and impact investors.

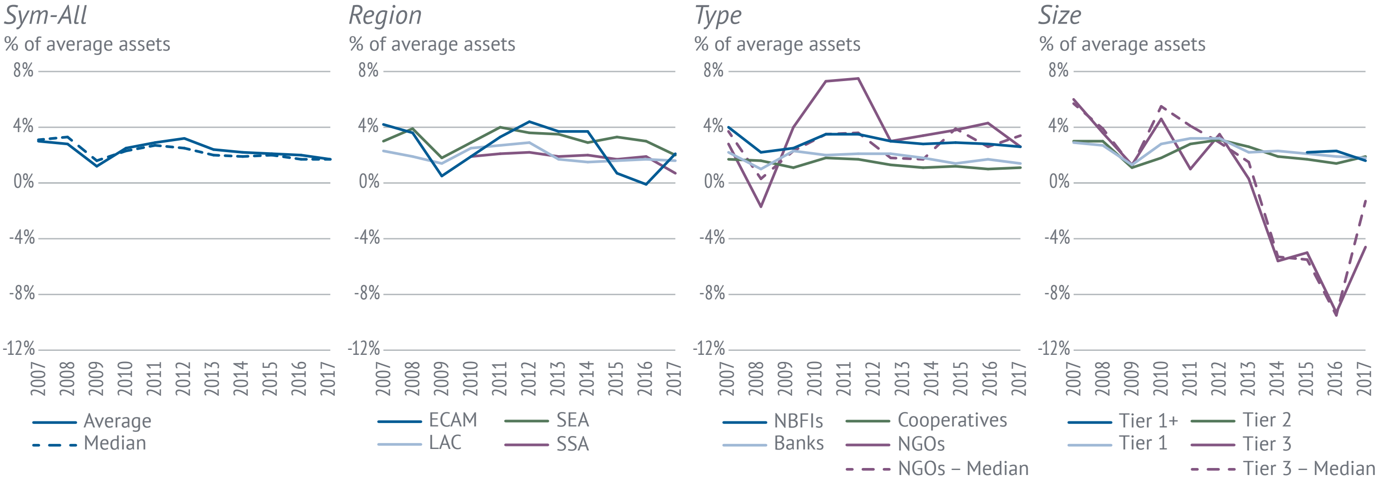
At the regional level, we observe that NPMs are much more erratic than net interest margins. This seems logical, as an infinite number of cross-country factors affect expense and revenue levels (such as currency devaluation, inflation, systemic banking crises, etc.) and thus the fraction of revenue generated that is converted into profit. With regards to the net profit margin, ECAM has been by far the most unstable region. It leads the benchmark, with an average NPM of 12.6%, while in 2016 it had the lowest record of all regions (1.5%). Yet interestingly, it was still positive for some Central Asian FIs despite the economic turmoil that followed the fall in oil prices. It is closely followed by SEA (12.5%), which had been outperforming the other regions since 2008. LAC has been recovering at a fast pace over the last three years (40% of average annual growth in the NPM), and today stands at 11%. FIs in SSA currently trail behind (4.3% in 2017), although the average between 2010 and 2017 stood at 6.4%.

RETURN ON ASSETS & RETURN ON EQUITY

The ROA measures how efficiently a company uses its assets to generate profit. In the case of FIs, those assets are primarily the loan portfolio coupled with some other investments and liquidities. Over the 2006-2017 period, the average ROA was 2.5% for the full sample (Figure 45). While this value still stood at 3.2% in 2012 (the point at which the industry had fully recovered from the default crises of 2009), it has continuously decreased since then, at an average of 12% per year, to reach 1.7% in 2017. This trend is essentially driven by the decline in the portfolio yield mentioned previously.

The ROE (Figure 46), on the other hand, reveals how efficiently shareholder equity is used. Logically, it has faced the same downward evolution as ROA. Whereas it was at 19.9% in 2012, the industry average presently amounts to 12% (Figure 46). However, performance by FI type differs, as some institutions have a higher portion of equity than others (Figure 28). NGOs, for instance, which finance their assets more through equity than debt or savings and deposits, will rank better compared to other FIs in terms of ROA than in terms of ROE. Banks that are highly leveraged will fare much better in ROE, while

Figure 45
Return on Assets

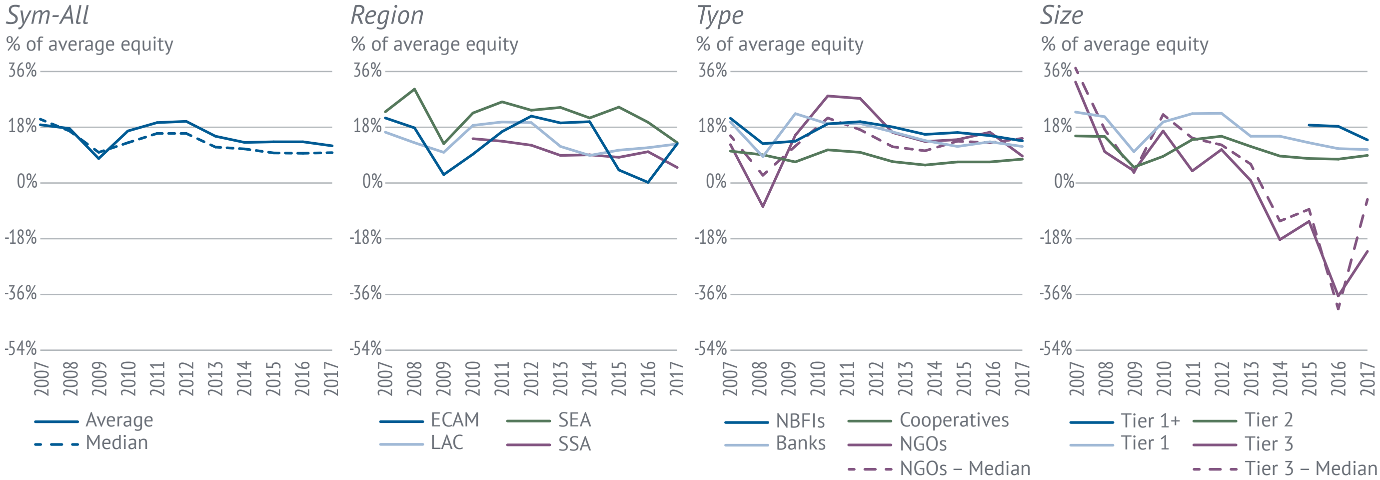


their substantial asset sizes, including non-productive assets such as fixed assets and hard and soft infrastructure, make them perform less well in terms of ROA.

NBFIs lead the general profitability ranking today, except in ROA (where NGOs rank first). They are followed by banks. Cooperatives lag behind regardless of approach. In terms of size, the three indicators show that the larger the institution, the more profitable it is as it benefits from economies of scale.

The regional comparison of profitability measures leads to us to conclude that in 2017 specifically, SEA and ECAM have led the benchmark, with almost identical performances (NPM: 12.5% and 12.6%; ROA: 2.0% and 2.1%; ROE: 12.9% and 12.7%). However, SEA has been on a steep downward trend for three years, accentuated by the recent demonetization in India, which required higher provisioning expenses. On the contrary, LAC has seen improving profitability ratios since 2014, while ECAM seems to have recovered from the 2016 default crisis in Central Asia. SSA is the least profitable region relatively speaking, even though ratios remain positive.

Figure 46
Return on Equity




TOPMIX

8. CONCLUSION

Our impact investing journey began nearly 15 years ago, in 2005, with a first debt transaction to a financial intermediary in Peru. At that time, the terminology *impact investing* did not exist. Today, it has grown to become an asset class of its own, with the development of specialized products and entry points for investors who are willing to generate positive socio-economic impact in underserved markets. The proven success of microfinance or financial inclusion as a sustainable and investable value proposition has played a key role in the positive momentum being witnessed by the impact investing sector today.

At Symbiotics, we have been supporting the growth trajectory of financial institutions active in microfinance or financial inclusion. During our more than 10 years of investing into the operations of our partner FIs, we have witnessed them grow their footprints in their respective markets, attract more clients, and increase financial inclusiveness through a broader financial and non-financial products and services offering. We have seen their business model evolve, with nearly 50 cases of FIs transforming from NGOs to NBFIs or from NBFIs to deposit-taking institutions or banks, capitalizing on the growing maturity of financial inclusion markets and more effective domestic regulatory frameworks. But we have also seen them face challenges in the wake of macroeconomic downturns, the global financial crisis or sector-wide microfinance crises in some countries. During those trying times, we have seen them be resilient enough to remain sustainable, continue to offer services to the BOP and regain investor confidence.

This white paper offers a granular analysis of all these developments that have taken place within our impact investing markets, supported by quantitative data related to our partner FIs' clientele, products, assets, funding, risk and returns.

Key takeaways on the trends over the 2006-2017 period include:

Clients: *Growing outreach; Stable loan sizes targeting the poorest segment; Increase in women, rural and agriculture clients*

- Breadth of outreach (borrowers and depositors) is highest in SEA, for banks and for large FIs.
- Loan and deposit balances are lowest in SSA/SEA and highest in LAC. ECAM falls in between.
- Women borrowers are largely represented in SEA and SSA, driven by NBFIs and NGOs. FIs in ECAM serve more men borrowers, while the gender mix is more balanced in LAC.
- Rural borrowers are the norm in SEA, while urban businesses are the prime clientele of LAC FIs.
- ECAM has traditionally been the region with the highest fraction of agricultural borrowers.

Products: *Broader scope of credit products; increases in the supply of other financial and non-financial products*

- Microenterprise loans remain the core credit product, especially in ECAM and SSA, as well as for small NBFIs and NGOs. For cooperatives, their loan portfolio focuses on the household needs of their members, while banks in LAC have higher volumes allocated to SME loans.
- Most of our African FIs offer savings and payment services, whereas all FI types, but mostly NGOs and cooperatives, increasingly offer non-financial services.

Assets: *Double-digit growth; Competitive pricing; Decreasing portfolio costs and quality*

- Assets and GLP have tripled in size in 12 years for the median FI. Growth was fastest in SEA and LAC, where credit partnerships have been formed with large banks and cooperatives.
- Portfolios are mostly channeled through individual loans but group lending remains important in SEA and SSA.
- Practiced interest rates are decreasing in all regions. They are the lowest in LAC and the highest in SSA. Yields are also low in SEA, where FIs have cost-effective business models and interest rate ceilings in some countries.
- Portfolio costs are heterogeneous across regions but have generally been decreasing thanks to lower operating expenses. ECAM FIs have witnessed more volatility in their provisioning expenses due to regional crises during the period.
- Market events and downturns have periodically affected FI PAR30 and loan write-offs, which have both slightly increased for the median FI since 2006 but remain at respectable levels.

Funding: *Increasingly local; somewhat costlier; controlled leverage*

- Borrowings and savings form the bulk of FI funding structures, with the former serving as the main source of growth for NBFIs and NGOs and the latter for larger FIs, banks and cooperatives.
- A higher fraction of borrowings is sourced from domestic markets, more so in LAC than in other places. SEA displays the highest growth in such borrowings, whereas FIs in ECAM still heavily rely on foreign debt.
- In line with the industry's higher maturity, concessional loans have disappeared everywhere, even for NGOs. This, combined with the growing use of local currency funding, explains why FIs of all sizes have incurred some higher financing costs over the period.
- Debt-to-equity levels remain far below what can be observed in more developed countries, especially in ECAM.

Risk: *Lower reserves and short-term liquidity; improved forex risk management*

- The industry is showing lower but still acceptable liquidity levels, with current ratios stabilizing at above 100% in all regions. Regarding the loan-to-deposit ratio, banks and cooperatives on average lend one dollar for each dollar deposited.
- Risk has grown considerably in terms of reserve adequacy, except in LAC where risk coverage has remained high and stable over the period.
- The fraction of liabilities and equity denominated in foreign currency has been decreasing strongly for every type of institution. This has enabled improvements in the currency misbalances observed in previous years, notably in ECAM and SSA.

Return: *Higher revenue from non-lending activities; decreasing profitability*

- The principal income source for FIs is linked to their lending activities. Income generated by other investment activities is nonetheless growing in all regions and for all FI types.
- With decreasing yields and higher costs of funds, the net interest margin has tightened over the past five years. Small NBFIs and NGOs, with their riskier clientele, have the highest margins on average.
- Profitability measures have decreased over the period. ROA and ROE are the highest in SEA, while ECAM, which suffered important losses in 2015 and 2016, seems to have fully recovered. NBFIs have historically been the most profitable type of FI.
- Maturing models, higher competition, higher appetite for risk and greater integration into local capital markets mostly explain this decreasing although positive profitability that has also been a byproduct of specific macro-economic events over the period.

These summarized trends demonstrate the financial soundness of our pool of FIs and their social impact purpose. But foremost, these results bring to light the operational diversity of partner financial institutions.

Depending on their type (NBFI, NGO, cooperative or bank) or size (tier 1+, tier 1, tier 2, or tier 3), they exhibit business models that are very different, targeting a different clientele in a different market segment through different products. They finance their growth differently while having contrasting risk management practices. Region-wise, the financial inclusion landscapes FIs operate in are also unique from one geography to another. In some regions, the sector is more mature, building on a longer history of financial inclusion. Some countries have conducive regulations, others less so, which not only impacts the types of FIs found in the region, but also the level of investment output and social outreach capabilities a region has to offer for impact investors.

The segmentation of the results in this paper hopefully paints a clearer picture of the most important FI attributes and how financial inclusion markets have evolved since 2006 as seen through the key patterns of our own pool of partner financial institutions.

As the impact investing world has embarked on yet another evolution, towards SDG financing, Symbiotics partner financial institutions – the enablers of financial inclusion – will remain our key counterparties in pushing capital towards the BOP.

OUTLOOK: SDG INTEGRATION

In the development aid and policy space, multilateral banks initiated the microfinance movement in the 1980s as an alternative to the massive government indebtedness programs in the South following the decolonization era of the 1960s. It was seen as a bottom-up private sector solution meant to complement, or maybe one day replace, top-down public aid while essentially finding ways to service the needs of low-income households and their livelihoods in high population growth countries that were both underdeveloped and underserved compared to more advanced markets. The value chain has remained unchanged since then but has evolved quite a bit in its underlying framework, which can sometimes be confusing for the outside observer.

The narrative has moved from an initial focus on microcredit in the 1990s – a small loan to a poor individual engaged in small income generating activities with little or no collateral to offer and usually jointly bound to self-selected peers to raise its credit profile – to microfinance by the time the United Nations celebrated the industry in 2005. The focus had then moved to bankers – successful microfinance institutions that enable small loans and, increasingly, savings, insurance and payment systems of all kinds. After the first microbank IPOs in India and Mexico, policy-makers shifted to a more systemic discourse of *building inclusive financial systems*. When the global financial crisis hit, the underlying framework evolved again, to a focus this time on the outcome or *impact*. While industry experts eventually settled into using the term *impact investing*, it remains somewhat of an abstract idea to everyday savers and pensioners. More recently, focusing on the themes and activities in which money is put to work, the model has increasingly been talked about using the lens of the United Nations Sustainable Development Goals to 2030 and its 17 core topics.

Microcredit, microfinance, inclusive finance, impact investing and SDG financing are all the same thing: it's about reaching far into low- and middle-income economies and investing deeply into the base of their social pyramid, into micro, small and medium enterprises and low- and middle-income households. From a focus on a more emotional narrative of a poor household or microentrepreneur to a more institution-building financial success narrative; or taking an economist's systemic approach to capital flows and the need for them to be inclusive; or focusing on measuring results and their outcomes; or eventually telling the story of how money is put to work, which goods and services of first necessity they fulfill: it's all the same thing, just using different lenses. The local financing intermediaries we analyze and describe in this paper contain and fulfill all of the above; we have nevertheless purposefully kept a focus on the institutional lens, the counterparty risk they represent as borrowers to foreign lenders, how their business models and operations function and evolve[53]. Offering this space as an investment opportunity to foreign wealth managers, private banks and asset managers requires organizing and structuring the investment strategy and value chains in a relatively intelligible manner for financial professionals, making the experience as normal as possible for traditional investment portfolios. At Symbiotics, we have strived to organize this market evolution, designed by the development aid and policy space, into a new investment strategy for impact investors (Table 10).

Table 10
SDG Integration Investment Strategy for Impact Investors

Investing in the real economy at the bottom of the pyramid in underserved economies		
Financial institutions		Direct investing
Household Finance (SDG 1, 5 and 10)	Small Business Finance (SDG 8 and 12)	Project & Corporate Finance
Commercial banks	SME banks	Sustainable agriculture (SDG 2, 14 and 15)
Microfinance institutions	Finance companies	Community development (SDG 6, 9 and 11)
		Renewable energy (SDG 7 and 13)
Fintech companies	Investment funds	Healthcare & education (SDG 3 and 4)

We see the current landscape or investment universe as split into three types of counterparties: a focus on households, on small businesses or on larger projects and corporates. The first two are approached by foreign investors through local financing intermediaries; the third can be invested directly. We thus refer to them as: 1. Household finance, 2. Small business finance, 3. Project and corporate finance. They all follow the same value proposition of *investing in the real economy at the base of the pyramid in underserved economies* or put more simply *pushing money to where it normally doesn't flow.*

53 For a review of the impact, outreach or outcome angles, please refer to *Managing and Measuring Social Performance*, Symbiotics, October 2017

1. HOUSEHOLD FINANCE: CONSUMPTION AND SECURITY

First and foremost, our portfolios are historically dominated by financial inclusion models delivered through microfinance institutions, increasingly commercial banks and more recently fintechs: they all seek to address the financial security (through savings, payments, insurance and credit lines products) and consumption (through consumer, working capital and fixed asset loans) needs of low- and middle-income households at the base of the pyramid, backed by their various income streams. Most financial institutions active on this value proposition are taking a multisector approach but some are increasingly specializing in specific themes and segments such as education finance, housing finance or even energy financing for instance. They distinguish themselves by offering capital, that is generally not formally secured or collateralized, in very small amounts, starting at around USD 100 to USD 1,000 and up to a maximum of USD 10,000 in certain countries, and going as deep as a couple dollars for some mobile fintech solutions. Altogether these household financial inclusion strategies have represented up to three-quarters of our portfolios. As we expand further, and looking how markets are evolving, they are nevertheless expected to gradually represent closer to half of our investments, even if growing in absolute terms. We see the low-income household financial inclusion models as primarily addressing Sustainable Development Goals number 1 (no poverty), 5 (gender equality) and 10 (reduced inequalities): our local partner financial intermediaries tend to focus on the poorest categories of clients, have been largely biased towards women, and have by design an intent to reduce the income, consumption and access to finance gaps.

2. SMALL BUSINESS FINANCE: EMPLOYMENT AND ENTREPRENEURSHIP

Since 2010, we've engaged in a second avenue, shifting portfolios slightly up-market, onto small business finance. The focus is on formalized shops, which require different lending methodologies that are more focused on the collateral and security their cash flow can offer. Here too, most financial intermediaries and models we work through take a multi-sector approach but some do focus on specific themes, such as agricultural value chains, energy solutions or even small infrastructure projects. They can be split between SME banks (with a majority of small enterprise clients), specialized financial intermediaries (such as leasing, factor or lending operations) and local investment funds. While the underlying investments generally range from USD 10,000 to USD 100,000 per small business for the first two, they can grow to USD 1 million to USD 10 million for the third. These types of counterparties have grown in our portfolios from nothing to about 20 to 25% today and will probably represent at least a third of our investments going forward. We see the small business finance strategy as primarily addressing SDGs 8 (decent work and economic growth) and 12 (responsible consumption and production).

Small business finance is principally about employment and entrepreneurship as vehicles of growth and economic development. Formalized companies are also the best means to address new normative developments in responsibly producing and consuming the goods and services put forth to the public.

3. PROJECT AND CORPORATE FINANCE: FOOD, HOMES AND ENERGY

Finally, the third set of investment strategies growing in our portfolios are made of direct investments into businesses that serve the base of the pyramid whether through project finance or private debt or equity. We see experienced impact investors moving beyond household and small business finance into a wider spectrum of risk and return, taking on for instance local green bonds for infrastructure and energy projects, with sizes of USD 10 to USD 50 million apiece or, at the other end of the spectrum, venture capital focused on impact and technology starting at USD 100,000 apiece. While they represent less than 5% of our portfolios today, they may well grow to 20 to 25% of our investments over time.

Historically, we have coined our impact theme range beyond micro-credit, and the financial security and consumption impact promise it put forward, as addressing: *jobs, food, homes and energy*. We have seen some of our partner lending institutions grow new credit products addressing these four core topics in their portfolios: obviously on small business finance for the first, but also on agricultural lending and trade finance for the second, on housing finance and real estate or infrastructure projects for the third, and finally on energy-saving credit solutions or new renewable and cleantech leasing schemes for the fourth. As mentioned, we have also seen more and more of new intermediaries entirely dedicated to these core impact topics. Some have also engaged in health and education credit offerings, which even if considered as a public good and government prerogative in many economies, has emerged as a valid private market complementary offering in some underserved economies; we have thus recently also adopted this fifth theme.

Systematically incorporating employment dynamics in our impact management and measurement, we have organized our direct project and corporate finance segments along the four other core topics: a. sustainable agriculture, b. community development, c. renewable energy, and d. health and education. If they are often addressed indirectly through multi-sector or dedicated financial institutions loan portfolios, they are more directly addressed through dedicated business models. These four core real economy topics beyond financial security, household consumption and employment and entrepreneurship, also allow for a more comprehensive SDG theme integration in investment portfolios.

(a) Sustainable agriculture. Agricultural value chain financing, whether production, trade, distribution or other models, focus on businesses which increasingly adopt a sustainable approach to extraction and harvesting of natural products from the planet, whether crops, cattle, fisheries or other plants and animals, extendable to mining and forestry, as well as land use and conservation. With a sustainability intentionality attached to it, the businesses engaged in these sectors address the SDGs 2 (zero hunger), 14 (life below water) and 15 (life on land).

(b) Community development. Community development financing is seen as involving housing, utilities and infrastructure investments, and the industries that develop, support and construct them, with a bias towards sustainable innovation to for instance provide green buildings, clean energy, transportation or water systems, accessible and affordable for the base of the pyramid, also integrating a particular emphasis on rapid urbanization and congestions on the one hand, and rural exodus and scarcity of service on the other. This investment segment best addresses SDGs 6 (clean water and sanitation), 9 (industry, innovation and infrastructure) and 11 (sustainable cities and communities).

(c) Renewable energy. Energy financing with a sustainable bias will include strategies to reduce and save energy use in a more efficient manner and/or use of new renewable energy and clean technologies for alternative production and consumption schemes, or a combination of both. Initially split between hydro, solar, wind and waste topics, we more recently engaged in a comprehensive segmentation of activities in this space, for the purpose of a dedicated fund with a Nordic bank and policy-maker, encompassing about 20 segments and 50 sub-segments. Overall, the multiplicity of models and businesses in this segment best address SDGs 7 (affordable and clean energy) and 13 (climate action).

(d) Healthcare & education. These two topics are deeply rooted in the public good and government prerogatives in the most advanced economies but are increasingly seen as private sector opportunity in some low-income economies. Healthcare topics, addressing SDG 3 (good health and well-being), refer to hospitals and clinics, healthcare plans, services and insurance, and the production and distribution of health products and solutions. Education topics, addressing SDG 4 (quality education), refer mostly to student and school loans but integrate a wider training realm, including innovative knowledge learning, transfer and management digital solutions.

We don’t believe SDGs 16 (peace, justice and strong institutions) and 17 (partnerships for the goals) are measurable investment topics for wealth management portfolios. We assume that by furthering SDG integration strategies, either via the three pillars or specific sub-segments, investors contribute to fulfilling goals 16 and 17 as well.

It is with this framework in mind that we have designed our investment strategy going forward, structuring our client offerings as a toolbox for market access that they can tap into *à la carte*. When we started, the impact investing markets didn’t offer this variety of choice; the investment universe has nevertheless widened, matured and diversified enough to offer all types of investors the capacity to engage in this space, with sufficient opportunity to fulfill their needs and expectations. We believe emerging and frontier markets are singling themselves out today by their advanced and leading financial services industries, driven by modern and innovative bankers, and are offering an impressive avenue for SDG integration into Northern traditional investment portfolios.

APPENDIX
INDUSTRY BENCHMARK

This appendix serves as a benchmarking tool for industry stakeholders willing to have a granular view of the 'Sym-All' values for every key performance indicator presented in this paper. Information on both the weighted average and median data points is available and the appendix is organized as per the order of indicator appearance in the paper.

Table 11
Benchmark, All FIs (Weighted Average vs. Median)

CLIENTS & PRODUCTS

Active Borrowers	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Average	28,796	34,064	40,530	49,565	58,521	65,677	70,423	74,901	83,188	111,909	130,394	138,314
Median	19,412	20,723	23,818	24,780	28,900	28,009	35,799	33,047	28,973	31,625	31,831	34,373
n	53	72	94	100	119	121	130	145	171	190	209	234
Average Loan Balance (USD)												
Average	1,102.2	1,139.1	1,179.7	1,198.5	1,083.6	1,010.5	915.5	967.5	1,009.8	1,010.7	1,225.6	1,442.1
Median	1,098.6	1,205.7	1,282.2	1,245.5	1,058.3	1,034.6	879.8	1,050.0	1,183.1	1,279.6	1,536.9	1,599.5
n	51	70	92	95	115	119	126	138	168	183	207	233
Gender (% of borrowers)												
Women – Average	56.6%	59.4%	61.7%	61.9%	65.6%	67.5%	67.9%	67.4%	71.1%	76.5%	78.9%	78.9%
Women – Median	48.3%	51.3%	50.8%	49.8%	51.7%	53.5%	52.3%	50.7%	51.2%	50.8%	50.3%	48.9%
Men – Average	42.9%	40.3%	37.9%	37.7%	34.1%	32.2%	31.6%	32.1%	28.3%	23.1%	20.6%	20.5%
Men – Median	50.4%	47.6%	47.6%	48.2%	46.7%	45.2%	46.3%	47.8%	47.1%	47.2%	46.4%	46.3%
Legal Entities – Average	0.6%	0.3%	0.3%	0.4%	0.3%	0.3%	0.5%	0.6%	0.6%	0.4%	0.5%	0.5%
Legal Entities – Median	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
n	53	71	94	99	117	118	127	144	169	187	207	234
Location (% of borrowers)												
Urban – Average	63.1%	57.2%	49.6%	51.6%	51.6%	55.2%	54.6%	53.3%	45.4%	42.7%	41.9%	42.2%
Urban – Median	66.0%	58.1%	59.3%	53.4%	56.1%	59.7%	57.4%	59.4%	51.4%	50.8%	50.5%	58.1%
Rural – Average	36.9%	42.8%	50.4%	48.4%	48.4%	44.8%	45.4%	46.7%	54.6%	57.3%	58.1%	57.8%
Rural – Median	34.0%	41.9%	40.7%	46.6%	43.9%	40.3%	42.6%	40.6%	48.6%	49.2%	49.5%	41.9%
n	53	71	94	99	117	116	127	142	168	186	209	234

Activity (% of borrowers)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Agriculture – Average	14.2%	22.6%	27.7%	24.8%	21.3%	20.5%	19.7%	20.0%	23.4%	23.8%	26.4%	25.6%
Agriculture – Median	7.4%	10.0%	13.9%	15.6%	13.2%	11.0%	10.9%	11.0%	10.2%	10.2%	10.2%	9.9%
Production – Average	7.9%	6.5%	6.4%	7.3%	6.8%	6.4%	6.4%	6.2%	5.4%	5.4%	5.0%	7.2%
Production – Median	4.0%	3.7%	3.6%	3.8%	3.5%	3.5%	2.7%	2.8%	2.8%	2.9%	3.3%	3.3%
Trade – Average	38.6%	38.3%	37.9%	38.6%	44.8%	48.1%	47.6%	45.0%	41.1%	35.6%	35.2%	29.7%
Trade – Median	37.6%	37.0%	32.7%	29.4%	31.9%	36.9%	40.1%	43.2%	41.0%	32.6%	29.2%	27.4%
Services – Average	17.8%	16.9%	15.3%	18.8%	16.5%	13.3%	12.2%	13.3%	11.1%	16.0%	15.3%	16.2%
Services – Median	14.5%	12.2%	12.6%	15.4%	13.1%	12.3%	11.9%	13.5%	11.2%	12.9%	11.6%	10.3%
Other – Average	21.6%	15.7%	12.7%	10.5%	10.6%	11.7%	14.0%	15.6%	19.1%	19.1%	18.1%	21.4%
Other – Median	14.4%	10.9%	10.5%	9.1%	7.8%	7.2%	6.5%	5.7%	5.1%	5.2%	10.3%	13.7%
n	53	71	94	99	118	118	128	144	168	188	210	236
Active Depositors												
Average	19,048	19,718	21,558	32,451	47,391	43,963	60,850	59,150	71,578	88,828	105,711	137,912
Median	0	0	0	0	0	2	1,810	2,645	8,432	731	3,906	4,835
n	54	73	95	101	120	122	131	146	171	190	213	240
Average Deposit Balance (USD)												
Average		1,027.6	868.1	994.1	806.9	519.6	539.5	590.8	668.5	711.1	1,070.9	1,089.2
Median		460.7	541.1	832.2	611.7	533.2	293.2	344.1	297.8	450.2	565.3	823.7
n	17	30	36	39	54	60	71	83	100	101	114	135
Depositors per Borrower												
Average	0.7	0.6	0.5	0.7	0.8	0.7	0.9	0.8	0.9	0.8	0.8	1.0
Median	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.1	0.2	0.3
n	53	72	94	100	119	121	130	145	171	190	209	234

Credit Offering (% of GLP)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Micro-Enterprise – Average	57.9%	53.5%	57.9%	59.5%	50.5%	55.4%	55.9%	52.4%	45.9%	40.6%	31.8%	34.8%
Micro-Enterprise – Median	60.4%	60.8%	67.9%	65.2%	64.8%	69.2%	68.7%	69.8%	67.0%	63.4%	60.1%	57.8%
SME – Average	21.7%	22.6%	22.3%	22.5%	30.6%	26.4%	18.9%	21.9%	25.0%	31.1%	31.3%	27.2%
SME – Median	7.5%	8.8%	8.4%	8.2%	9.3%	7.7%	8.0%	8.9%	10.0%	10.8%	13.5%	14.3%
Large Enterprise – Average	0.0%	0.0%	0.0%	0.4%	0.9%	1.1%	0.8%	0.8%	2.6%	2.8%	9.9%	11.1%
Large Enterprise – Median	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Education – Average	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	0.2%	0.2%	0.3%	0.2%	0.2%
Education – Median	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Immediate Household Needs – Average	11.2%	11.6%	9.7%	9.3%	9.1%	8.6%	15.0%	17.0%	16.6%	16.1%	16.2%	15.0%
Immediate Household Needs – Median	4.9%	6.3%	4.7%	4.8%	3.0%	1.3%	2.4%	2.1%	1.9%	1.5%	2.1%	1.9%
Housing – Average	7.8%	7.9%	7.3%	5.8%	5.6%	5.4%	5.7%	5.4%	7.4%	6.4%	6.7%	8.0%
Housing – Median	1.5%	2.5%	1.9%	0.8%	0.4%	0.5%	0.1%	0.2%	0.1%	0.3%	0.8%	1.2%
Other – Average	1.4%	4.4%	2.8%	2.5%	3.2%	3.0%	3.4%	2.2%	2.3%	2.7%	3.8%	3.8%
Other – Median	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
n	53	71	94	99	118	119	128	144	169	188	210	236
Non-credit, Financial Products Offering (% of FIs)												
Savings Offering – Average					34%	45%	57%	57%	58%	59%	61%	64%
Insurance Offering – Average					49%	60%	61%	67%	67%	72%	75%	74%
Payments Offering – Average					48%	54%	61%	62%	64%	61%	64%	62%
n	0	0	0	0	87	112	122	138	159	173	199	232
Non-Financial Products Offering (% of FIs)												
Average					21%	37%	43%	48%	48%	51%	59%	61%
n	0	0	0	0	87	112	122	138	159	173	199	232

ASSETS

Total Assets per FI (USD million)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Average	44	52	58	81	87	88	90	102	123	172	267	328
Median	21	25	28	34	32	32	38	44	46	47	61	63
n	54	73	95	101	120	122	131	146	171	190	213	240
Breakdown of Total Assets (% of TA)												
Liquidities – Average	17.9%	16.2%	15.0%	19.5%	18.6%	14.6%	17.3%	17.6%	18.7%	20.1%	22.8%	22.9%
Liquidities – Median	12.3%	11.2%	8.9%	15.1%	13.7%	11.8%	13.3%	13.9%	12.3%	12.4%	14.0%	13.5%
Net Loan Portfolio – Average	72.1%	75.0%	77.1%	72.8%	73.2%	76.0%	73.7%	73.7%	72.7%	71.4%	67.6%	66.8%
Net Loan Portfolio – Median	77.4%	81.7%	82.0%	75.5%	75.2%	77.0%	77.2%	77.3%	77.1%	77.5%	75.4%	75.1%
Other Assets – Average	10.0%	8.7%	7.9%	7.6%	8.1%	9.3%	9.1%	8.7%	8.6%	8.5%	9.6%	10.3%
Other Assets – Median	7.7%	6.9%	7.0%	7.8%	7.9%	8.1%	8.6%	8.4%	8.3%	8.3%	8.8%	8.8%
n	54	73	95	101	120	122	131	146	171	189	213	240
Gross Loan Portfolio per FI (USD million)												
Average	34	41	47	63	67	70	69	78	93	127	188	229
Median	18	22	23	25	26	26	30	33	34	39	49	52
n	53	72	94	100	119	121	130	146	171	190	213	240
Loan Methodology (% of GLP)												
Individual Loans – Average	94.1%	92.9%	91.2%	93.0%	91.7%	88.8%	86.6%	87.6%	87.6%	87.0%	88.3%	86.3%
Individual Loans – Median	99.6%	99.2%	99.8%	99.6%	99.7%	98.1%	96.5%	97.5%	97.3%	98.9%	99.5%	99.9%
Group Loans and Village Banking – Average	5.9%	7.1%	8.8%	7.0%	8.3%	11.2%	13.4%	12.4%	12.4%	13.0%	11.7%	13.7%
Group Loans and Village Banking – Median	0.4%	0.8%	0.2%	0.4%	0.3%	1.9%	3.5%	2.5%	2.7%	1.1%	0.5%	0.1%
n	53	71	93	98	116	117	127	142	169	187	209	235
Asset-Backed Portfolio (% of GLP)												
Average								15.5%	21.5%	28.0%	26.1%	32.5%
Median								9.0%	11.9%	12.0%	12.9%	14.0%
n	0	0	0	0	0	0	0	135	165	179	206	231
Portfolio Yield (% of average GLP)												
Average		25.8%	26.3%	25.0%	25.5%	26.0%	27.8%	26.9%	25.9%	24.9%	22.2%	19.2%
Median		28.1%	29.6%	28.6%	28.9%	30.9%	31.9%	29.4%	28.8%	28.8%	26.7%	24.7%
n	0	49	69	80	85	91	100	111	127	143	162	184

Portfolio Costs (% of average GLP)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Funding expense – Average		7.0%	7.5%	7.5%	6.3%	6.2%	7.1%	8.2%	8.1%	8.6%	8.1%	7.9%
Funding expense – Median		7.3%	8.2%	7.9%	7.9%	7.9%	7.8%	7.7%	8.1%	8.5%	8.6%	8.1%
Provision expense – Average		2.9%	2.8%	4.3%	3.9%	3.3%	2.4%	2.7%	2.6%	3.2%	2.7%	2.6%
Provision expense – Median		1.8%	2.3%	3.7%	2.8%	2.0%	2.3%	2.0%	2.1%	2.5%	2.4%	2.1%
Operating expense – Average		13.1%	12.6%	12.5%	13.0%	14.0%	15.3%	14.8%	14.7%	12.6%	10.6%	9.1%
Operating expense – Median		13.9%	13.1%	13.6%	15.0%	18.2%	19.1%	18.8%	17.1%	17.1%	15.8%	14.0%
n	7	49	69	80	85	91	100	111	127	144	162	184
Loan Officer Productivity (USD)												
Average	314,254	340,450	303,467	347,942	283,846	249,741	239,075	266,780	306,531	283,368	372,640	434,149
Median	245,492	301,639	273,534	269,868	230,374	198,071	194,677	207,559	228,511	237,666	300,779	295,984
n	53	72	94	100	119	120	130	145	171	187	206	230
Costs per Borrower (USD)												
Average		291.8	279.1	306.0	297.0	267.0	221.8	271.6	273.9	268.3	249.4	289.4
Median		298.3	346.9	383.0	369.2	304.4	282.8	329.1	356.2	376.4	401.1	449.2
n	7	49	69	80	85	91	99	111	127	143	162	183
PAR 30 (including restructured loans) (% of GLP)												
Average	3.4%	2.8%	2.7%	5.5%	4.8%	3.8%	3.8%	4.0%	4.2%	5.0%	6.5%	6.7%
Median	2.9%	2.5%	3.0%	4.5%	2.9%	2.8%	2.9%	3.0%	3.3%	4.1%	4.8%	4.3%
n	50	71	93	95	116	120	128	141	170	183	209	234
PAR90 (% of GLP)												
Average				2.4%	2.1%	2.0%	1.9%	2.0%	2.2%	2.3%	2.6%	3.2%
Median				2.3%	1.4%	1.3%	1.2%	1.6%	1.5%	2.2%	2.3%	2.3%
n	0	0	0	96	116	120	128	142	170	184	211	236
Restructured loans (% of GLP)												
Average	0.7%	0.6%	0.5%	1.7%	1.7%	0.9%	1.0%	0.8%	0.9%	1.7%	2.3%	2.0%
Median	0.1%	0.1%	0.1%	0.4%	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%
n	52	72	93	97	117	120	129	143	170	188	211	238
Write-offs (% of average GLP)												
Average		1.3%	1.1%	1.8%	2.8%	1.9%	1.2%	1.6%	1.6%	2.2%	1.7%	1.2%
Median		0.7%	0.8%	1.6%	1.4%	0.9%	0.8%	0.8%	1.3%	1.4%	1.3%	1.0%
n	7	49	70	80	88	98	103	115	134	148	170	194

FUNDING

Funding Sources (% of total liabilities and equity)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Senior Debt – Average	37.2%	40.6%	46.7%	41.5%	33.3%	33.3%	37.2%	40.6%	37.2%	34.9%	33.6%	29.6%
Senior Debt – Median	64.5%	65.2%	66.0%	65.4%	60.1%	61.1%	56.0%	54.4%	53.1%	56.0%	53.5%	51.4%
Savings & Deposits – Average	43.5%	39.2%	31.4%	36.1%	44.2%	37.0%	36.6%	34.5%	39.6%	41.9%	44.7%	49.4%
Savings & Deposits – Median	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	5.1%	0.1%	0.0%	15.1%
Sub-Debt – Average	0.0%	1.5%	2.5%	2.5%	2.5%	1.8%	1.7%	1.9%	2.1%	2.3%	2.0%	1.9%
Sub-Debt – Median	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Equity – Average	16.6%	15.8%	16.1%	16.1%	14.5%	15.1%	17.5%	17.4%	15.7%	15.5%	14.9%	14.0%
Equity – Median	21.1%	18.3%	18.7%	19.2%	19.3%	19.0%	19.1%	19.3%	18.6%	18.0%	17.5%	17.5%
Other Liabilities – Average	2.7%	3.0%	3.5%	3.7%	5.5%	12.9%	7.0%	5.6%	5.4%	5.4%	4.9%	5.0%
Other Liabilities – Median	2.3%	2.6%	3.2%	3.1%	3.8%	4.5%	4.6%	4.8%	4.7%	5.0%	4.6%	4.6%
n	54	72	95	99	118	121	130	145	167	184	195	231
Cost of Funds (% of liabilities)												
Average		6.2%	7.2%	7.2%	6.1%	6.5%	7.2%	7.8%	7.8%	8.0%	7.3%	6.8%
Median		7.4%	9.3%	8.9%	8.7%	8.7%	8.8%	8.6%	8.6%	8.9%	9.1%	8.8%
n	6	32	70	81	86	92	90	104	118	132	153	161
Debt-to-Equity Ratio (Times equity and subordinated debt)												
Average	5.04	4.78	4.45	4.67	4.89	4.90	4.40	4.20	4.62	4.61	5.16	5.28
Median	3.68	3.99	3.74	3.49	3.60	3.68	3.72	3.63	3.88	3.94	4.29	4.14
n	53	73	95	101	120	121	129	145	170	189	208	236
Short- vs. Long-term Borrowings (%)												
Short term - Average	32.8%	24.4%	27.8%	34.9%	42.0%	41.2%	40.5%	42.6%	43.6%	42.9%	46.3%	45.3%
Short term - Median	27.4%	21.1%	27.7%	35.7%	40.6%	43.3%	41.8%	38.1%	39.5%	39.6%	46.2%	41.9%
Long term - Average	67.2%	75.6%	72.2%	65.1%	58.0%	58.8%	59.5%	57.4%	56.4%	57.1%	53.7%	54.7%
Long term - Median	72.6%	78.9%	72.3%	64.3%	59.4%	56.7%	58.2%	61.9%	60.5%	60.4%	53.8%	58.1%
n	54	73	95	101	120	122	131	146	171	190	213	240
Local vs. Foreign Borrowings (%)												
Local – Average				28.0%	33.1%	34.5%	36.6%	37.1%	32.6%	35.3%	44.7%	43.8%
Local – Median				22.7%	23.2%	24.8%	24.5%	23.5%	18.0%	19.3%	23.7%	24.8%
Foreign – Average				72.0%	66.9%	65.5%	63.4%	62.9%	67.4%	64.7%	55.3%	56.2%
Foreign – Median				77.3%	76.8%	75.2%	75.5%	76.5%	82.0%	80.7%	76.3%	75.2%
n	0	0	0	99	120	118	129	144	166	186	205	232
Concessional vs. Commercial Borrowings (%)												
Concessional – Average	21.8%	18.3%	16.0%	12.6%	11.5%	8.0%	4.3%	1.7%	3.1%	1.5%	0.5%	
Concessional – Median	19.1%	8.8%	9.6%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Commercial – Average	78.2%	81.7%	84.0%	87.4%	88.5%	92.0%	95.7%	98.3%	96.9%	98.5%	99.5%	
Commercial – Median	80.9%	91.2%	90.4%	98.1%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
n	54	73	95	101	120	122	131	146	171	188	208	0

Loan-to-Deposit Ratio (% of demand and term deposits)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Average			161.2%	137.8%	131.0%	156.2%	153.5%	163.6%	144.2%	138.1%	117.4%	115.0%
Median			364.5%	155.5%	190.0%	274.5%	237.2%	251.5%	227.7%	232.1%	199.0%	181.8%
n	18	27	35	37	51	54	62	75	86	94	110	136
Current Ratio (% of liabilities and equity < 12 months)												
Average		145.1%	147.5%	97.4%	95.6%	101.9%	101.1%	123.9%	116.7%	108.9%	103.8%	100.2%
Median		187.6%	192.5%	113.7%	112.3%	109.4%	117.4%	172.5%	160.1%	157.9%	140.8%	134.5%
n	0	71	95	99	118	119	128	141	165	184	197	240
Risk Coverage (% of PAR30 and restructured loans)												
Average				84.5%	89.2%	103.5%	90.7%	94.7%	87.2%	70.7%	58.8%	63.4%
Median				92.3%	102.1%	103.2%	102.1%	101.9%	100.0%	89.3%	77.4%	80.6%
n	0	0	0	100	119	120	130	146	171	188	212	238
Uncovered Capital Ratio (% of equity and subordinated debt)												
Average	-1.3%	-1.8%	-2.2%	3.7%	2.3%	-0.7%	1.4%	0.8%	2.3%	6.7%	11.7%	10.7%
Median	7.3%	7.8%	9.3%	0.5%	-0.2%	-0.2%	-0.3%	-0.2%	0.0%	1.1%	3.6%	2.7%
n	54	73	95	101	120	122	131	146	171	188	212	239
Capital Adequacy Ratio (% of risk-weighted assets)												
Average				22.4%	21.2%	20.3%	23.9%	24.4%	23.6%	24.7%	23.1%	23.1%
Median				28.0%	25.4%	25.5%	26.2%	25.2%	24.5%	25.6%	24.7%	25.4%
n	0	0	0	101	120	122	131	146	171	188	212	240
Currency Misbalance to Equity (% of equity and subordinated debt)												
Average	-4.5%	-33.3%	-6.5%	-8.5%	-2.6%	5.9%	2.2%	0.7%	1.1%	4.3%	4.4%	4.1%
Median	0.0%	-3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
n	54	73	95	101	119	117	126	138	162	175	193	224
Currency Breakdown of Liabilities and Equity (%)												
Local Currency L&E - Average	70.4%	70.3%	66.7%	70.7%	77.4%	78.6%	78.2%	80.0%	77.6%	77.8%	75.6%	73.1%
Local Currency L&E - Median	67.1%	72.8%	75.9%	74.7%	84.5%	91.6%	91.1%	92.9%	92.6%	92.9%	93.2%	95.0%
Foreign Currency L&E - Average	29.6%	29.7%	33.3%	29.3%	22.6%	21.4%	21.8%	20.0%	22.3%	22.1%	24.4%	26.9%
Foreign Currency L&E - Median	32.9%	27.2%	24.1%	25.3%	15.5%	8.4%	8.9%	7.1%	7.3%	6.6%	6.8%	4.2%
n	54	73	95	101	119	117	127	140	165	178	195	226

RETURNS

Income Composition (% of operating income)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Income from Lending - Average		94.2%	94.3%	94.1%	92.8%	92.1%	91.5%	90.9%	88.7%	88.3%	85.5%	83.0%
Income from Lending - Median		98.0%	98.2%	95.9%	95.4%	95.8%	95.0%	95.2%	93.8%	93.5%	93.0%	92.6%
Other Income - Average		5.8%	5.7%	5.9%	7.2%	7.9%	8.5%	9.1%	11.3%	11.7%	14.5%	17.0%
Other Income - Median		1.9%	1.8%	4.1%	4.6%	4.2%	5.0%	4.8%	6.2%	6.5%	7.0%	7.4%
n	0	73	95	101	120	122	131	146	171	189	213	240
Net Interest Margin (%)												
Average		19.5%	19.1%	17.7%	19.4%	19.6%	20.6%	19.1%	18.1%	16.9%	14.8%	12.5%
Median		20.7%	20.3%	19.6%	20.2%	22.2%	23.0%	20.9%	20.3%	19.9%	17.6%	15.9%
n	0	32	69	80	85	91	90	104	118	132	153	161
Net Profit Margin (% of total income)												
Average		14.3%	11.5%	8.2%	10.5%	11.8%	12.4%	11.2%	8.9%	10.7%	10.5%	10.9%
Median		15.1%	12.9%	8.8%	9.7%	11.6%	10.7%	8.6%	7.0%	7.3%	7.5%	8.0%
n	0	73	95	101	120	121	130	145	170	188	213	240
Return on Assets (% of average assets)												
Average		3.0%	2.8%	1.2%	2.5%	2.9%	3.2%	2.4%	2.2%	2.1%	2.0%	1.7%
Median		3.1%	3.3%	1.6%	2.3%	2.7%	2.5%	2.0%	1.9%	2.0%	1.7%	1.7%
n	7	50	71	81	86	91	99	110	126	141	162	184
Return on Equity (% of average equity)												
Average		18.8%	17.6%	7.9%	16.8%	19.5%	19.9%	15.1%	13.1%	13.3%	13.3%	12.0%
Median		20.6%	16.8%	9.9%	13.0%	16.0%	16.0%	11.6%	11.0%	9.7%	9.6%	9.8%
n	7	50	71	81	86	91	99	110	126	140	161	184

SWITZERLAND
Symbiotics SA
Rue de la Synagogue 31
1204 Geneva
t +41 22 338 15 40

SWITZERLAND
Symbiotics SA
Limmatquai 86
8001 Zürich
t +41 43 499 87 89

MEXICO
Symbiotics Mexico S de RL de CV
Diagonal Patriotismo 12 – 602
Colonia Hipódromo
06100 México D. F.
t +52 55 55 84 78 72

NETHERLANDS
Symbiotics Netherlands
Meester Treublaan 7
1097 DP Amsterdam
t +31 20 2409329

SINGAPORE
Symbiotics (Singapore) Pte. Ltd.
134 Amoy Street #03–01
049963 Singapore
t +65 31 63 71 80

SOUTH AFRICA
Symbiotics I, C & S South Africa Ltd.
4 Loop Street, Studio 502
8001 Cape Town
t +27 21 425 51 19

UNITED KINGDOM
Symbiotics UK Ltd
6 Bevis Marks
London EC3A 7BA
t +44 203 786 1186

symbioticsgroup.com