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SCBF HOUSING MICROFINANCE RESULTS STUDY

Cambodia and El Salvador

**Projects: 2012-05
2013-11**

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June 2018

ABBREVIATIONS

ADESCO	Community development associations (associations supported by the National Constitution of the Republic of El Salvador, which expresses the right to peaceful assembly, without arms, to carry out lawful actions for the benefit of the community)
ASOMI	Asociación de Organizaciones de Microfinanzas de El Salvador
CTA	Construction Technical Assistance
FONAVIPO	Fondo Nacional Para la Vivienda Popular
GHMT	Global Housing Microfinance Toolkit
HFHI	Habitat for Humanity
HIL	Home improvement loan
HL	Housing loan
ITA	Institutional technical assistance
LOLC	Lanka Orix Leasing Company
OPIC	Overseas Private Investment Corporation
PPI	Poverty Probability Index
PFI	Partner financial institution
SCBF	Swiss Capacity Building Facility
TPC	Thaneakea Phum (Cambodia) Ltd.

EXECUTIVE SUMMARY

The purpose of the following study is to determine the results of two interventions funded by the Swiss Capacity Building Facility (SCBF) in Cambodia and El Salvador during 2014. Both aimed at assisting three institutions to expand Housing Microfinance (HMF) products for low income households in their respective countries. In both contexts, the intervention focused on combining a home improvement loan (HIL) with construction technical assistance (CTA). The CTA was provided by Habitat for Humanity International (HFHI) through its Terwilliger Center for Innovation in Shelter and aimed at improved building standards and the efficient use of the HIL funds according to an established budget. The study is based on a series of staff interviews and client household surveys implemented in both countries between January and April 2018. While an initial summary of the findings is included below, there are certain similarities in outcomes across the two countries and three institutions. Most notably, at the institutional level, all partner financial institutions (PFIs) found the product training provided by HFHI to the PFI staff to be helpful in building internal resources, but most often did not recall providing financial education services to clients. At the client level, the CTA services to clients were not perceived as meeting their needs as most clients had already obtained budgets and designs in advance of approaching the PFI for a loan. At the same time, the study found, on average, improvements in the quality of client dwellings and noted strong rates of customer satisfaction, despite some indications of over indebtedness. Finally, at the sector level, no evidence of imitation products entering the market at the end of the SCBF-funded intervention was found.

Cambodia

The project was implemented in two Microfinance Institutions: LOLC (Cambodia) Plc. and Hattha Kaksekar Limited (“Farmers Hand” in Khmer, HKL). The interviews with the managerial staff revealed that both institutions were already considering launching HMF products as they identified a strong demand for this type of product. The role of HFHI focused on building the internal capacity of these institutions and enhancing the design and delivery of housing microfinance products through the Global Housing Microfinance Toolkit (GHMT), which was adapted for the Cambodian context.

When looking at the performance of the HMF loans in both institutions, we found growth in product demand, noting that the expected outcome of 20,000 new clients combined across both MFIs was reached, although we do not have socioeconomic background information to know whether these new clients were low income. There was also a gender differential, with more female borrowers than male (70% in LOLC and 63% in HKL), which was close to the client outreach goal of 80% female borrowers. Finally, when assessing non-financial services such as CTA, we found that it was instituted as a mainstream practice across both institutions. The idea of providing construction support services was shown to be impractical since, in most cases, clients already had their design and costs in mind before requesting the loan, so these services were often perceived as unnecessary and time consuming.

When looking at client surveys, however, we found that there has been a significant improvement in dwelling conditions in terms of construction materials as well as access to piped water, toilets and electricity connection. There was also an increase in the average surface area of households and number of rooms. Surveyed households had an average income of USD 4.35 per member per day, with LOLC clients having on average lower household incomes than those of HKL. In terms of the loan amounts, the average amount acquired per household in the last 5 years and including all types of loans was USD 9,489, with the total average amount for HIL borrowers at USD 6,556. We analysed the issue of indebtedness using different measures according to the literature, finding that around 30% of the households appear to be over-indebted, in spite of the efforts that are being made to avoid this problem through Client Protection Principles.

We also found positive results in terms of client perception, with 99% of the households reporting having a positive change in their households thanks to the loan and 98% indicating that if they could go back in time, they would acquire the loan again. Furthermore, 76% said that they recommended HIL to their friends.

Finally, we found that there has been an increase in the access to microfinance institutions over the years, although this could also be attributable to other factors including the rapid growth that the sector has been experiencing. Since a market gap in terms of HMF loans had already been identified and considering the growth of the sector, it is not possible to say whether the intervention was imitated elsewhere in the market. Furthermore, the construction support services were barely put in practice and therefore we cannot assert that these services were imitated by other institutions.

EI Salvador

The intervention with Credicampo stemmed from negotiations for a credit line between then Fundación Campo and MicroBuild, a housing-focused fund established by HFHI. The offer comprised the Institutional Technical Assistance (ITA) provided by HFHI and funded by the SCBF. Early in the development of the institution, credits were only granted for the agro-livestock sector. The diversification of the financial offerings was driven by customer demand but was done without specific strategies to differentiate products or increase outreach. The ITA offered by HFHI highlighted the importance of complying with international investor standards and is seen as having contributed to a set of measures taken to strengthen and expand operations. Overall, the most important aspect of the SCBF-funded intervention is qualitative. It showcased the importance of inclusive product design methodologies, considering all actors and stakeholders, which is said to have introduced a cultural shift within the company that has been applied to the development of other financial products.

Since the end of the SCBF-funded intervention, Credicampo increased the number of borrowers in its housing portfolio by more than 120%, which was achieved by reaching out to salaried customers and families living from remittances in urban and suburban areas. The institution does not systematically assess poverty levels among its customers, nonetheless, PPI scores and household revenue in the sample indicate that borrowers in the housing portfolio tend to be above national poverty lines.

CTA was not offered beyond the pilot for two main reasons. First, the product was discontinued because it was seen by management as not responding to customers' needs and demands. Second, its high operational costs rendered it unviable. Credit agents having received training in the CTA explained that the offering would have significantly increased their workload, diminishing their capacity to accomplish other essential tasks. Most importantly, counselling clients on the building of their houses seemed to have increased their perceived implicit responsibility in case something goes wrong with the construction, potentially affecting repayment rates and community relationships.

Customers' dwelling conditions before and after the loans improved across nearly all measured dimensions. These include upgraded material quality of walls, roof and floors, as well as enlargement of the available living space, all resulting in more comfortable and adequate housing. The study also found no significant changes in terms of ownership and tenure security as customers tend to own the houses they invest in.

In regards of over indebtedness, 45% of households commit 30% of their annual income to pay back housing and other loans. Among them, 17% are heavily in debt and allocate over 50% of their revenue to reimburse loans. 40% of the sample mentioned being worried about

their ability to repay their loans. Despite these difficulties, the large majority is satisfied by financial products they purchased and would recommend Credicampo services to others.

Looking at the usage of the borrowed funds indicates that 46% of the housing improvement loans were multipurpose. The main alternative usages were consumption, financing migrations, paying for unexpected medical expenses and refinancing previous loans. Considering all the above-mentioned variables, we observed no statistically significant difference in the results between the customers having taken part in the pilot and the rest of the portfolio, leading us to conclude that the goals of the intervention had no discernible impact on the target population.

Recent studies indicate that seven out of ten households in El Salvador are affected by qualitative housing deficits, which is a consequence of endemic poverty as well as lack resources at the state level. Most microfinance institutions offer housing improvement loans, with at least one providing CTA services as part of alliances with external funding bodies. According to the research, these offerings are not widely available and cannot be considered the result of imitation effects following the SCBF-funded intervention.

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I. INTRODUCTION

The following study focuses on two HMF pilot interventions funded by the SCBF in Cambodia and El Salvador during 2014. Both projects were conceived to assist leading microfinance institutions expand housing loan offerings in their countries by providing scalable and sustainable financial products to low-income households. HFHI, through the Terwilliger Center for Innovation in Shelter, provided the ITA. The Terwilliger Center works to develop market-based solutions for housing around the world and is part of the NGO's mission to facilitate better functioning and more inclusive housing markets.

Table 1: SCBF Housing Microfinance projects covered in the study

Project	Partner Financial Institution	Focus	Competition date	Competence Centre	SCBF contribution
SCBF 2012-05	LOLC Cambodia Plc. (formerly TPC) and HKL, Cambodia	Up-scaling of Cambodia Housing Microfinance products by LOLC and HKL	02/2014	Habitat for Humanity International	CHF 93'278
SCBF 2013-11	Credicampo, El Salvador	Building Capacity to Expand Housing Microfinance in Central America, El Salvador	10/2014	Habitat for Humanity International	CHF 102'459 (for El Salvador and Honduras)

Source: SCBF data

Habitat's Terwilliger intervention aimed at combining a HIL with a non-financial CTA package. The main objective of the CTA was to complement the loans with construction assistance to improve building standards and ensure that borrowed funds are used efficiently and according to an established budget. Following the project's objectives and documentation, this study evaluates the intervention at the institutional, client and sector levels. While the interventions in both Cambodia and El Salvador had similar objectives, the report analyses both cases separately in order to account for the contextual differences of both interventions. Starting with Cambodia and continuing with a similar evaluation grid for El Salvador, we first analyse the interventions at the institutional level in order to understand how it was received by the different PFIs. This analysis provides the necessary insights to discuss the impacts at the client level, which will be examined subsequently. Then, drawing on secondary data and the results obtained in the previous sections, we will infer on the effects of the interventions on the microfinance sector as a whole. After the concluding remarks, we will present a series of recommendations based on the findings.

II. METHODOLOGY

Outcomes at client level in this study are based on primary data derived from two surveys carried out in Cambodia and El Salvador from January to April 2018. The Cambodia subset surveyed 100 clients from LOLC and 101 clients from HKL. The sample was randomly selected among the provinces of Phnom Penh, Kampot, Kampong Speu and Kampong Cham based on a multistage sampling.¹ In El Salvador, the survey reached 157 Credicampo customers, 75 of which were listed as having taken part in the CTA pilot carried out with the advice of HFHI during 2014 in the department of Morazán, and 82 customers having contracted an ordinary housing loan in Morazán, San Miguel, La Union, and Usulután. The financial product offered during the pilot phase was limited to a maximum loan amount of USD 5,000, a limit for all clients in the sample. Both the Cambodia and El Salvador questionnaires contained general information about household members, dwelling conditions, income and expenditures, assets, loans and indebtedness, as well as client perception of the loans.

To assess the impact of the SCBF-funded intervention on the PFIs, the research team relied on desktop research and 30 semi-structured interviews with key managerial level staff members and credit officers from both HKL and LOLC were carried out. In El Salvador, the institutional analysis is based on 32 interviews with Credicampo management at the company

¹ See Appendix p. 19

and agency level, credit agents, Communal Credit Committee and ADESCO members, as well as three hardware and building materials store managers in Morazán.

Quantitative analysis was processed and organised with Excel, STATA and R. We calculated certain indicators and used descriptive statistics in the analyses. As no baseline data exists, changes as a consequence of the credits were assessed as per customers' opinion and recollection from the time before receiving the loans. We used t-tests, chi-tests and proportion tests in order to determine statistical significance, as well as used null hypothesis analysis to confirm that statistical differences were not merely due to chance.

III. CAMBODIA

1. Background

Between 2013 and 2014, the SCBF funded an intervention in Cambodia intended to provide scalable and sustainable housing microfinance products for the low-income population segment. This project was carried out by HFHI and was conceived as a potentially high impact intervention that could, if applied correctly, generate imitation within the microfinance sector in Cambodia. Accordingly, this intervention consisted in two product 'up-scaling' interventions completed with two microfinance institutions: LOLC and HKL. At the time, LOLC was seeking to increase the number of HIL and mulled whether training on technical aspects of construction would enable clients to improve their living conditions. On the other hand, HKL was planning on improving its general construction loan by creating two separate products, HIL and Housing Loans (HL), which they believe responded to their needs.

The work of HFHI's Terwilliger Center was focused on helping the aforementioned partner institutions to build their internal capacity and to improve the design and delivery of their housing microfinance products by providing sustainable housing and financial support services. In this context, HFHI implemented the following program: first, they conducted an institutional diagnosis and adapted the GHMT to suit the local context, which was used to provide training to 50 key management staff and 400 credit officers from both institutions in the following aspects: (a) Legal/Regulatory framework; (b) Product development; (c) Internal systems from origination, risk management, pricing, collection, servicing; (d) Construction technical support and design; and (e) Customer awareness/training (including financial education). During this process, they worked with LOLC and HKL on market research in order to improve their existing housing microfinance products and provided technical assistance and training on housing support services and financial education.

1.1 Partner Microfinance Institution Level

a) LOLC (Cambodia) Plc.

LOLC (Cambodia) Plc. is a microfinance institution which was established by the Catholic Relief Services in 1994 to help rural women access financial products and support services for their microenterprise activities. Since then, it has grown significantly and is currently the fourth largest microfinance institution in Cambodia by gross loan portfolio and assets. Their growth trends in terms of both client outreach and financial indicators can be seen in Table 2.

In late 2011, LOLC launched a pilot in three branches for a product called HIL in partnership with the Overseas Private Investment Corporation (OPIC), with the aim of enabling low income households to improve the quality of their living conditions (Thaneakea Phum (Cambodia) Ltd [TPC], 2012). After running a client survey and conducting market research in 2012, they decided to expand this product to five additional locations and in 2013 they rolled it out to all other branches. According to key staff members, the reason for implementing this type of product was threefold. First, the aforementioned market analysis showed that there was an important demand for home improvement loans and results suggested many Cambodians wanted to use existing income streams to improve their family's living standards and social status through mechanisms such as enhancing their housing conditions. Second, the MFI saw this as an opportunity to improve their social performance indicators, namely their

clients' Poverty Probability Index (PPI).² Based on the outcomes of the market research, HFHI's Terwilliger Center designed a product refinement plan for LOLC to rollout the product beyond the initial branches by implementing a formal product design process, capacity building of management and operation field staff, and updating the relevant policy and procedures. Lastly, this was an opportunity for LOLC to receive new funds and training from the development sector, which facilitated the implementation of HIL as evidenced by the intervention of OPIC, Good Return Australia (GRA), and Habitat for Humanity's MicroBuild Fund.

Table 2: LOLC Key Performance Indicators

Key Indicators	Dec-13	Dec-14	Dec-15	Dec-16	Dec-17	Mar-18
Number of offices	46	54	67	73	77	77
Number of personnel	874	1,156	1,498	1,873	2,065	2,219
Total Assets (USD)	\$ 95,025,328	\$134,307,474	\$ 222,403,802	\$ 252,851,899	\$ 371,418,104	\$ 427,959,600
Gross Loan Portfolio (USD)	\$ 74,946,542	\$ 115,372,296	\$ 188,354,835	\$ 219,538,796	\$ 323,644,822	\$ 382,067,952
Number of Active Borrowers	153,952	189,345	218,411	208,393	210,227	214,459
Return On Assets	5.49%	6.71%	6.76%	5.61%	4.83%	5.20%

Source: LOLC, 2013-2018

i. Intervention outcomes

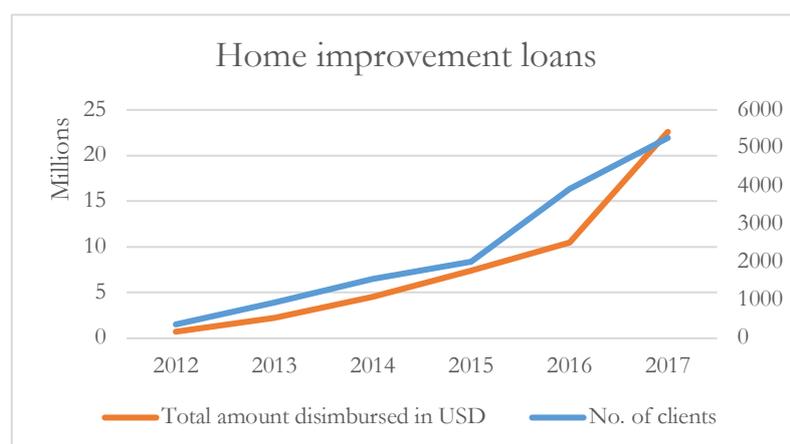
When looking at the performance of the HILs, we found that in 2016, they only represented 2% out of the total accounts and 5% of the total loan portfolio.³ However, it is important to note that it is also the product that has been growing the fastest, with an average growth rate between 2013 and 2016 of 55% in terms of number of disbursements and 72% in loan portfolio. In the following graph, we found a clear growing trend both in terms of number and value of loan disbursements. The total amount disbursed between 2012 and 2017 reached USD 48.03 million.

In terms of the relevance of the intervention, interviews with key staff members revealed that while there was a housing product before HFHI intervention, the training they received saved them time and resources in building a strong technical construction toolkit, which proved to be a very important skill, particularly for the credit officers. In this context, LOLC management agrees that the SCBF-funded intervention was important in terms of the capacity building it provided to their staff. As a result, the most important output is that credit officers now have a better understanding of construction processes and costs, allowing them to better evaluate loans prior to their disbursement. In addition, they mentioned that the process of implementing the 'quality of house and client satisfaction survey' was useful as it provided relevant information on the perception their client base has for these types of loans.

² The PPI rely, to a great extent, in information that has a direct and indirect link with households housing conditions. See section 1.2 for definition.

³ Group loans are the most important in terms of number of accounts making up 63% in 2016 followed by Individual loans with 22%. On the contrary, in terms of loan portfolio amounts, this is reverse, with Individual loans being most important (43%) followed by group loans (24%).

Figure 1: HIL disbursements (total amount and number of loans)



Source: LOLC HIL client database

ii. Client outreach indicators

LOLC was able to reach around 13,300 new HIL clients between 2012 and 2017⁴, which represents 66.5% of the expected outcome of 20,000 new low income clients for both of the MFIs combined. Unfortunately, the complete dataset that was shared does not include information related to household income or socioeconomic status, nor the setting where the clients come from (urban or rural). Hence, we cannot assert that all of these clients were low income. However, we do have the sectors in which they work. Table 3 reveals that the majority of HIL clients (44% of the total number of disbursements from 2014 to 2017) come from salary and wage employment, followed by agriculture with 27%. This is an interesting finding since according to LOLC's 2016 annual report, when considering all of the clients, 99% come from rural areas and around 59% are involved in agriculture.

These findings shed light into the fact that although MFIs aim at increasing access to financial services to poor families, they also need to take into account the risk that each client entails. In this context, clients that rely exclusively on family-based agriculture pose a higher risk than those that come from the wage employment sector, which have a regular income. Nevertheless, it is reassuring to have found that the percentage of clients from the agricultural sector has been increasing from 17% in 2014 to 29% in 2017.

Table 3: Distribution of clients by sector

Sector	2014	2015	2016	2017	Total
Salary and Wages	43%	52%	40%	45%	44%
Agriculture	17%	15%	36%	29%	27%
Trade and Commerce	19%	15%	10%	11%	12%
Services	17%	16%	14%	11%	14%
Production	2%	1%	1%	3%	2%
Other	2%	1%	0%	1%	1%
Grand Total	100%	100%	100%	100%	100%

Source: LOLC HIL client database

⁴ These amounts were taken from the lists of HIL clients provided by LOLC. The difference from the annual report is that these are new HIL clients (not taking into account returning HIL borrowers), whereas the number in the report takes into account all current loans per year.

In terms of gendered access to HIL we found that 70% of the borrowers were women. This is below the female outreach goal that was initially set (80%), but it is close. This percentage is actually reflective of LOLC's total clients, as 81% were women in 2016 (LOLC, 2017).

iii. Non-financial services

In terms of non-financial services, a general assessment when looking at the credit officer's interviews is that client support in terms of budgeting and construction management is not a common practice. The credit officers pointed out that most clients already have the design and costs in mind before approaching the MFI, so this service is often unnecessary and time consuming. Accordingly, the training provided by HFHI in this regard is used by credit officers exclusively for loan assessments, and is not shared and not discussed with the clients. However, it is important to note that there is an exception with toilet loans, which are part of the HIL product. For this type of loan, LOLC is in charge of hiring, paying and supervising the contractor until the construction of the toilet is finalized; moreover, this type of loan does not require any type of collateral. On the other hand, when looking at the credit officers' surveys, financial education services are non-existent. Other than explaining their repayment schemes and recommending not to be late in their payments, there was no recollection of any credit officer providing an actual financial education training to any client.

b) Hattha Kaksekar Limited

HKL started out as a food security project established by OCSD/OXFAM-Quebec and in 2001 it transitioned to a microfinance institution, obtaining the first MFI license granted by the National Bank of Cambodia in 2001. Subsequently, in 2010, HKL was offered a "Micro-Finance Deposit Taking Institution License" and in 2016 it was acquired by Kungsri Bank, the 5th largest bank in Thailand. HKL has set a mission to provide loans, savings and other financial services in Cambodia, particularly to women and low-income families in rural areas. It is now among the three largest microfinance institutions in Cambodia. When looking at HKL's key indicators, we found a growing positive trend. On the one hand, the number of offices and size of the staff has grown to 153 offices and 2,325 workers in 2016. Furthermore, their total assets and GLP have experienced significant growth at an average annual rate of 48% and 44% respectively. However, when looking at the return on assets, these have been volatile with a slight downward trend, reaching 2.4% in 2016 (See table below) (HKL 2014, 2015, 2016).

Table 4: HKL Key Performance Indicators

Key Indicators	2012	2013	2014	2015	2016
Number of offices	122	136	142	150	153
Number of personnel	1,278	1,613	1,911	2,243	2,325
Total Assets (USD)	\$122,972,865	\$ 179,572,687	\$ 316,363,804	\$ 446,116,297	\$ 586,507,682
Gross Loan Portfolio (USD)	\$102,838,107	\$ 145,667,482	\$ 250,192,757	\$ 363,504,006	\$ 445,243,662
Number of Active Borrowers	74,559	83,416	100,636	112,777	117,637
Return on Assets	4.14%	2.89%	3.27%	2.93%	2.40%

Source: HKL; 2014-2016

According to the managerial staff interviews, HKL realized that there was an expansion in the construction sector in Cambodia, with many potential clients looking for loans for residential purposes. In this context, after conducting a market analysis, they realized that there was an important demand and opportunity for housing microfinance products, which could help them diversify their portfolio and increase their revenue. By implementing these types of products, they could improve their social performance indicators as well as their clients living conditions.

Consequently, HKL implemented HILs and HLs. The latter consists of loans which can reach up to USD 100,000, with loan terms up to 12 years, and are destined for individuals who want to buy a house. On the other hand, HIL, which is the focus of HFHI's intervention,

comprises loans destined to renovate or finish residential constructions and consists of a loan of up to USD 30,000.

i. Intervention outcomes

According to the interviews with key staff members, HKL had already envisioned similar products, since other MFI’s had already implemented them and they had to do the same in order to remain competitive. However, a common assessment from the management of HKL was that the intervention of HFHI helped them accelerate the implementation of housing microfinance products and provided relevant technical information in the area of construction. In terms of impact, the surveys reveal that HFHI provided useful research material, which helped them in the implementation of HIL. In terms of training and information, the focus was mainly on technical aspects of construction, which proved very helpful for the credit officers who now have a wider understanding of what construction entails in terms of materials and costs.

Table 5: HKL Housing and HIL No. of clients and Disbursements

		2015	2016	2017
Number of disbursements	HIL	419	979	2,138
	HL	478	1,326	2,523
	Both HIL and HL	897	2,305	4,661
Value of disbursements in USD	HIL	\$ 2,410,336	\$ 4,218,218	\$ 9,472,824
	HL	\$ 4,874,449	\$ 12,540,970	\$ 28,945,715
	Both HIL and HL	\$ 7,284,786	\$ 16,759,188	\$ 38,418,538

Source: HKL HIL client database

As for the performance of these two new loans, we found a growth trend both in terms of the number of loans and the amount disbursed for both products, with a larger growth in HL. This type of loan represents 55% of housing microfinance loans between 2015 and 2017 and 74% in value (USD).

ii. Client outreach indicators

In 2017, HILs alone reached 2,138 clients, adding to a total of 3,536 clients between 2015 and 2017⁵. Furthermore, when taking into account both types of loans, the total number of clients reached with loans in those three years was 7,836, of which 7,754 clients were new. Considering that the initial goal of the program was to reach 20,000 new low income clients and taking into account LOLC’s results (13,300 new HIL clients), the expected outcome has been achieved. However, similar to the results of LOLC, it is important to note that we do not have enough information to assess whether these new clients were low income.

In terms of access to HIL and HL we found that 63% of the borrowers were women, which is below the women outreach goal that was initially set in the project (80%). Also, we found that the majority of HIL clients (38%) came from salary and wage employment, followed by agriculture with 23%. When looking at the portfolio of HL, the dataset reveals that clients from the salary employment sector rose to 41% and retail/commerce occupied the second place with 20%. Overall only 20% of the clients came from the agriculture sector. These results are quite similar to those of LOLC and are related to the income stability and risk concern discussed earlier.

⁵ Information taken from the dataset of HMF clients of HKL.

iii. Non-financial services

In terms of non-financial services, both the credit officers that were present at the moment of the intervention and the managerial staff of HKL reveal that the financial education and construction services were only implemented during the pilot stage and completely abandoned afterwards. In regards to client support for budgeting and construction, around 80% of the credit officers that were not present at the time of the project revealed that they had no recollection of this service ever existing. As for the management, they claim that while interesting at first, the responses from both the credit officers that participated and the clients involved were negative. Similar to LOLC, most of the clients had their budget, materials and design already in place before requesting the loan, thus this was viewed not only as unnecessary, but time consuming. Moreover, the people providing the construction advisory services were mainly recent university graduates and were perceived by the clients as not having enough experience and therefore not being very trustworthy. Lastly, the interviews reveal that the managerial level was concerned about potential liabilities of providing construction technical assistance, particularly whether they could be held accountable if anything went wrong in the construction process or even afterwards.

Regarding the financial education services, which were envisioned as part of the program and which aimed at improving the financial literacy of clients, none of the credit officers interviewed recalled providing this type of training, similarly to LOLC. They only recalled providing a general explanation of the repayment schemes to their clients.

1.2 Client Level Analysis

In this section, we plan on evaluating the outcomes of the SCBF intervention at the client level. In order to keep track of their social performance, both LOLC and HKL use the PPI. This measurement consists of 10 simple questions regarding household characteristics and asset ownership, which are used to compute the likelihood of the household living under a defined poverty line. There is an inverse relationship between the index and the probability of being low income. In this sense, a higher PPI means a lower probability of the household living below a given poverty line. Both HKL and LOLC provided information on PPI from different time periods. Therefore, we aimed at looking at the evolution of this index in order to see if, on average, the likelihood of a household being low income was reduced. However, when we compared the earlier PPIs with the current ones, we found that there was not a statistically significant difference among the scores. This could be due to several reasons, since the PPI takes into account different factors that are not necessarily related to the HIL program. Also, we must note there was a change in the questionnaire of LOLC, so a direct comparison of the scores was not possible. Furthermore, the questionnaires from LOLC and HKL differed in their content. We therefore concentrated on the following specific aspects of dwelling conditions: construction material of the household, source of water, toilet facility, and living space, which are important in and of themselves.

The findings reveal that, in general, there was an improvement in the dwelling conditions, notably around durability. This analysis was carried out using recall questions and doing a before and after comparison. As for the construction material, we found that there has been an improvement in the type of material used. At the time before the loan, only 14% of the sample used burnt brick as the main material of their outer wall, whereas currently, this proportion rose to 40%, which is statistically significant. Moreover, the use of other materials which are not as durable, such as bamboo, thatch, and tree leaf was reduced among the sample from 13% to 0%. Similarly, when looking at the construction material of the roof, we found a significant increase in the proportion of households which have roof tiles (20.5% to 46.5%) as opposed to zinc sheets, which decreased from 63% to 33.5% (see Appendix).

In regards to the source of water and toilet facility, we found an improvement in both aspects. Among the sample, there was an increase of 14% in the proportion of households with water piped into the dwelling. Furthermore, there was an important increase in the proportion of households with a toilet (48% to 74% of the sample) and a decrease of households with no toilet facilities, which reduced from 44.5% before the loan to 18%

afterwards. Both of these differences are statistically significant (see Appendix). Finally, we also found that the proportion of households with electricity connection rose from 72% to 86%.

In terms of living space, we found that there was a significant increase in both the surface area of the households and number of rooms. Before the loan, the average surface area in the sample of households was 39.3 m² and the average number of rooms was 1.9, whereas currently, the average is 62.9 m² and 3.2 rooms. Similarly, when looking at the proportions of households with a separate kitchen, we found that there has been a significant increase (42% compared to 72%) between the time before the loan and currently (see Appendix).

i. Client income & income sources

We now analyse the average profile of the households in the sample in terms of income. We found that on average, households in the sample earned a total net income (after business and agricultural expenses) of USD 7,884 in the previous 12 months before the survey. There is a significant difference between the clients of LOLC and HKL, with the sample of the latter earning USD 8,945 on average compared to USD 6,833 of LOLC. These figures include total income earned by all of the members of the households in the last 12 months and thus it is important to take the household size into account. We thus calculated the income per person per day for each household. This reveals an interesting finding, since households had on average USD 4.35 per member per day, but 50% of the households earned less than USD 3.71 per member per day. Again, there is a significant difference between LOLC and HKL since in the sample of LOLC 50% of the households earned less than USD 3.2 per member per day, whereas in the case of HKL this percentile earned USD 4.37.

In regard to the sources of income, non-farm salaried employment represented the highest proportion, on average 45% of total net income, followed by migration and remittances with 19%, and non-farm self-employment with 17%. Although the contribution to total net income of farm employment (both self and salaried) is only around 15%, it is important to note that 66% of the total sample of households reported receiving income from crops or animals. This goes in line with social goals of both MFIs of reaching households in the agricultural sector.

Finally, looking into the sectors of employment, the most important sector in terms of non-farm *salaried employment* is the textile/garment sector, with almost half of the households having a majority of their salaried working members in this sector. Commerce is the most important sector in non-farm *self-employment*. In the sample of households which had at least one member working in non-farm self-employment, 40% had a majority of their non-farm self-employed members in this sector.

ii. Loans

On average, the total amount of loans acquired in the last 5 years was USD 9,489. This is considering all of the different types of loans including HIL and others. Regarding only HILs, the average was USD 6,556 overall with, once again, a significant difference between the samples of HKL and LOLC. The former had an average HIL size of USD 8,087, whereas the latter had an average of USD 5,041. Therefore, we can see that HKL reaches a different segment of the population since both the income of their clients and amount of loans are higher than those of LOLC.

When looking into the purpose of loans, an interesting finding is that out of the other loans that were not HIL, 44% were used for buying assets or household equipment. This reveals that not only HIL served this purpose, but other loans were acquired to cover these costs. The purposes of the other loans that were important among the sample for contributing to these costs were developing or expanding businesses. Finally, when analysing the HILs, the main purpose was building a house, followed by extending rooms and renovating homes. It is important to note that some of the HIL were used for more than one purpose.

iii. Indebtedness

An important matter to take into account regarding microfinance is the risk of over indebtedness (Firth, B. & Green, M., 2014). As of February/March 2018, the average amount of principal remaining to repay was USD 4,621 with 13% of the households having no debt

left to repay. We used different indicators to measure over-indebtedness as appear in the literature (Schicks & Rosenberg, 2011 & D'Alessio, 2013 & Schicks, 2014). We first calculated the proportion of loan repayment expenditures out of total income. This was done based on the responses to the household survey regarding the quantity and type of expenditures in the last year as well as the total income. On average, this proportion was 30% among the sample. According to D'Alessio (2013) a threshold of 30% is an indicator of over-indebtedness. Therefore, in the sample, almost 50% of the households would be considered over-indebted using this definition. However, using a less strict definition with a threshold of 50% out of total income as suggested by Oxera (2004), the percentage of households considered over-indebted falls to 10%. We complement this analysis with subjective indicators of stress levels among the household members related to loan repayment (D'Alessio, 2013; Schicks and Rosenberg, 2011). When asked how often the family had been worried about the repayment of the HMF loan in the last 3 months, 31% reported having been worried frequently and another 36% reported having been worried sometimes. Similarly, when asked about the level of stress that the repayment of the HIL caused to the members of the family from 1 to 5 (1 being no stress at all and 5 being a lot of stress), 52% answered with a level of stress of 3 or more. However, the answer to the stress caused by the repayment of other loans, apart from the HIL, was very similar, indicating this outcome is not unique to housing loans.

Lastly, another measure of over-indebtedness that has been used in the context of microfinance consists of loan-related sacrifices that borrowers report (Schicks, 2014). In this context, 30% of the households reported losing their ability to consume certain goods or services due to the HMF loan repayment. Furthermore, 18% of the households reported reducing their food consumption because of the need to repay the HMF loan. According to both MFIs, they are committed to preventing over-indebtedness and have implemented the Client Protection Principles to ensure that clients know their rights on different matters, including over-indebtedness prevention. However, the results of the three different set of indicators of over-indebtedness indicate that this may still be an issue. This goes in line with the current concern of over-indebtedness in the microfinance sector as a whole (Schicks, 2013; Bateman, 2011; Liv, 2013; Schicks & Rosenberg, 2014).

iv. Tenure security

In all of the sample, household members owned the dwelling in which they live. At the time before receiving the HMF loan, 47.5% of the households had a hard title, meaning that the households possessed a title deed over their dwelling. The other 52.5% possessed a soft title, corresponding to letters from local authorities indicating ownership. Currently, 65.5% have a hard title and 34.5% have a soft title. In this sense, since all households had some type of document indicating ownership, no households reported being afraid that some institution would take away their household. Consequently, they were willing to invest in improving their dwelling conditions.

v. Client Perception

In general, the results reveal a positive perception of the HIL and its outcomes. When asked whether there had been changes in the homes thanks to the HIL, all of the households agreed and 99% reported a positive change. Furthermore, 98% of the households said that if they could go back in time, they would acquire the loan again and 76% said that they recommended the HIL to their friends.

Furthermore, when clients were asked about their main borrowing sources before and after the loan, 64% answered microfinance institutions, followed by relatives (28%) and banks (4%). In contrast, 97% answered that their current source is microfinance institutions. Therefore, there seems to be a significant increase in the access to microfinance institutions. This could be attributed to the program, but also to the significant growth that this sector has experienced over the recent years.

1.3 Sector Level Analysis

The microfinance sector in Cambodia has been experiencing a rise in housing microfinance products for over a decade. Institutions such as Prasac and Amret have been developing these products since 2005 and 2007 respectively, and other institutions have followed such as Kredit (2008), Vision Fund (2014), First Finance (2009), which have specialized in housing microfinance products exclusively, among others. In this context, it is not possible to assert that either HKL or LOLC have generated imitation effects, as a market gap was identified before HFHI intervention.

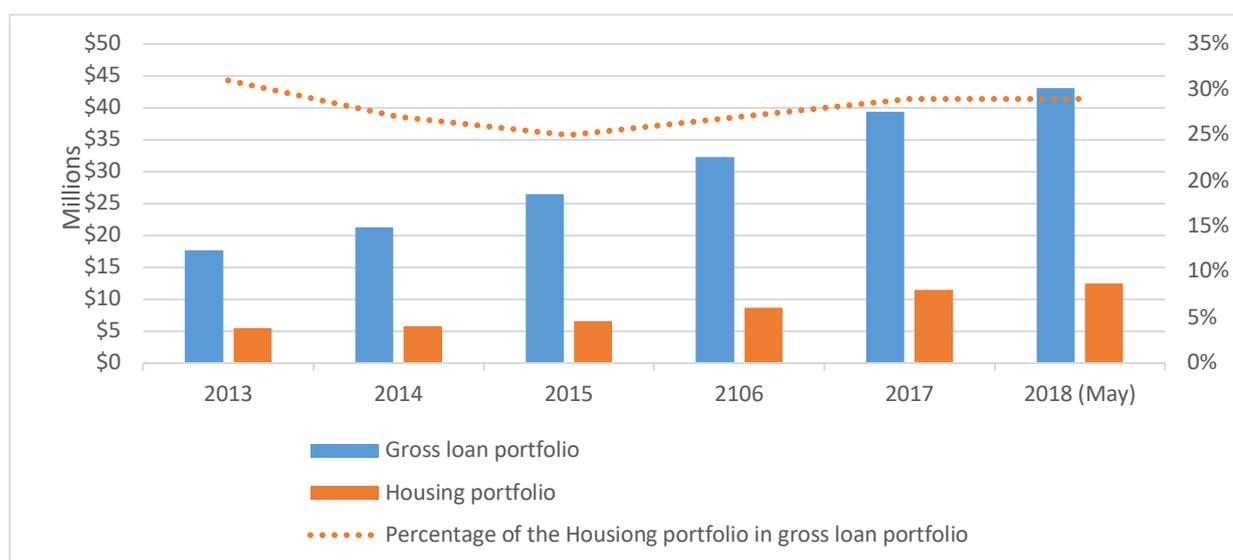
In terms of support services, which were conceived as possible examples that could create replication effects in the Cambodian microfinance sector as a whole, the results show that this has not happened. Unfortunately, as shown in the 'Partner Microfinance Institution level analysis' section, support services in terms of construction and budgeting were barely implemented in LOLC and were only applied during the pilot stage in HKL. As for financial education services, those were non-existent in both institutions. In this context, it is not possible to conclude that these services were copied by other institutions given they were not properly implemented both in HKL and LOLC.

IV. EL SALVADOR

1. Background

The following section reports on the results at institutional and household levels of the SCBF-funded intervention with Credicampo (Fundación Campo at the time), a leading institution with over two decades of experience in eastern El Salvador. Implemented between 2013 and 2014, the overall goal of the intervention was strengthening housing microfinance systems in the country. The project stemmed from negotiations for a USD 1 million credit line between then Fundación Campo and MicroBuild, a housing-focused fund established by HFHI. The credit product offered by MicroBuild included an ITA component to be provided by HFHI and funded by the SCBF. In this framework, the main activities carried out were: (a) a market and customer satisfaction survey to assess the needs, preferences, and abilities of potential clients; (b) the redesigning of the existing housing microfinance product to incorporate a CTA component; (c) the planning, implementation and monitoring of a six-month pilot in two agencies in the department of Morazán; (d) the organisation of a workshop for key operations staff offering training on the product offer and its CTA component; and (e) the adaptation of a management information system (MIS) to collect and classify information to enable trend analysis, to prepare financial projections and to allow a more realistic cash flow.

Figure 2: Evolution of gross loan and housing loan portfolios



Source: Credicampo MIS data

The SCBF-funded intervention was carried out at a transitional period for the institution. In response to regulation limiting the scope of the financial offerings NGOs such as Fundación Campo could provide, management decided to decouple its microcredit services from its social outreach activities. This led to the founding of Credicampo – an independent cooperative attached to Fundación Campo – and paved the way for the increased turnover and profitability the institution has seen in the last five years. Since its creation in 2013 and as shown in Figure 2 above, the institution has increased its gross lending portfolio by almost 150% and its housing portfolio by over 120%.

2. Findings and conclusions

2.1 Partner Microfinance Institution Level

i. Intervention outcomes

Housing financial products were first offered as a result of client demand. Early in the development of the Fundación Campo, credits were only granted for the agro-livestock sector. Around 1999, ADESCO members conveyed the need for a more diversified set of usages that clients could give to their loans, including HILs. Despite offering an increasingly diversified set of financial products, these were not clearly differentiated with one another, nor was there a market research strategy to increase outreach. The ITA offered by HFHI highlighted, at a critical juncture of the institution, the importance of differentiating their financial products and aligning themselves with international investors' demands in terms of transparency, marketing and risk evaluation. Compliance with funders evaluation criteria is viewed as having facilitated the obtainment of new credit lines and has been a contributing factor in the expansion of the then newly created Credicampo. In general terms, the ITA provided by Habitat is viewed as an addition to the whole set of measures taken since 2013 to strengthen the institution and expand operations. In this context, the financial models provided by Habitat helped in the planning of the housing product profitability and design, and as mentioned, in complying with investors' standards and demands.

Since the SCBF-funded intervention and as shown in Table 6, the housing portfolio has grown to account for over USD 12,000,000 and represents about 30% of the total lending of the institution, following growth trends of all other portfolios. This evolution was foremost possible by the change in the legal form the company operated in 2013, and Credicampo management were clear that this effort was made entirely with internal resources. In this context, the company commissioned external experts at their expense to address operational weaknesses and increase the efficiency and profitability of the company. According to managers, the most important aspect of the SCBF-funded intervention is qualitative. It showcased the importance of inclusive product design methodologies, taking into account all actors and stakeholders, a process that is said to have introduced a cultural shift within the company and has been applied to the development of other financial products.

Table 6: Credicampo Key Performance Indicators

Key indicators	2013	2014	2015	2016	2017	2018 (May)
Number of offices	9	10	11	12	13	14
Number of personnel	88	101	125	154	179	206
Total assets (USD)	\$ 19,637,524	\$ 23,492,293	\$ 30,099,014	\$ 35,801,433	\$ 43,338,856	\$ 47,414,763
Gross lending portfolio (USD)	\$ 17,674,841	\$ 21,305,315	\$ 26,477,042	\$ 32,307,621	\$ 39,415,521	\$ 43,113,462
Housing portfolio (USD)	\$ 5,479,201	\$ 5,752,435	\$ 6,619,261	\$ 8,723,058	\$ 11,430,501	\$ 12,502,904
Number of active clients – Gross lending portfolio	12,382	14,530	16,718	19,320	23,173	25,342
Number of active clients – Housing portfolio	2,098	2,536	2,637	3,222	4,246	4,748
Return on assets	5.89%	2.57%	2.46%	3.50%	3.54%	1.34%
PAR 30 gross lending portfolio	0.36%	0.25%	0.34%	3.88%	3.89%	0.32%
PAR 30 housing portfolio	1.91%	2.18%	2.49%	1.83%	1.44%	1.93%

Source: Credicampo MIS data

ii. Client outreach

As of May 2018, the Credicampo housing portfolio had 4,748 borrowers across its 14 agencies in the eastern departments of El Salvador, an increase of over 120% in the number of customers since the finalization of the SCBF-funded intervention and a larger increase relative to the overall lending portfolio. While the institution's historical client base is concentrated in rural communities, expansion was significantly pushed by increasing outreach in urban and suburban areas and by reaching a wider array of customer profiles. Credicampo does not systematically measure poverty among its clients and does not use PPI scorecards,⁶ nonetheless, the institution last commissioned a PPI report on the whole of its clientele in 2016. This document, which unfortunately does not desegregate data in terms of lending portfolios, serves as an approximate baseline against which to analyse results. As shown in the Appendix (p. 30), PPI scores we gathered in the sample show a clear decrease in the probability that a Credicampo housing loan client is below any poverty line. For example, an average client in the sample has a 19% probability of being below the national poverty line, while it had a 35% chance back in 2016. These results can be linked to a variety of reasons. First, the decrease is consistent with the Credicampo expansion strategy of reaching clients further up the socio-economic pyramid. These clients include most notably salaried workers and households living from remittances sent by family-members working overseas, although this reason alone could hardly explain the variation. Second, changes could be linked to the characteristics of the housing portfolio and might not accurately reflect poverty conditions across all the institution's customers - as the Credicampo PPI report mentioned above does. Being able to afford a non-productive housing loan suggests families are better off financially than, for example, rural clients borrowing funds periodically to finance subsistence agriculture – the type of profile that still constitutes the core of the customer base. Taking household revenue into account, and regardless of the number of people in the family, the housing microfinance clients we interviewed are indeed above national income averages. The mean monthly household income⁷ in the sample is of USD 684, 25% above the national average of USD 545⁸. Finally, it is important to note that the latest version of the PPI score card for El Salvador was made in 2010, based on national census data collected in 2008. It is therefore possible that socio-economic and demographic changes in the past decade have affected the precision of the tool in ways we cannot accurately assess.

iii. Non-financial services

The development of the CTA component is considered by Credicampo management as responding to international trends and investor demands rather than real customer's needs for such services, which explains in part why the product was not offered beyond the pilot phase. Beyond demand side limitations, the CTA component was discarded for two main reasons. First, the provision of the service would have increased operational costs that, if transferred to the clients, would have hampered accessibility or, if absorbed by the institution, would have ended up compromising the financial sustainability of the product. Second, the offering of the CTA would have created operational bottlenecks decreasing the swift delivery of credits Credicampo is known for, ultimately affecting customer service.

Alliances with construction materials providers faltered due to differences in the mutually expected benefits of the partnership. The hardware store managers that we interviewed explained that the low profit margins on construction materials and the very competitive nature of the market made granting reductions possible only for large transaction volumes. The progressive construction model called for by the CTA translated in low sales turnover and was not seen as an incentive to entertain the collaboration.

⁶ Credicampo does not use the PPI to assess poverty levels among its customers, as this method does not accurately account for the characteristics of their rural clientele. This is particularly the case among the rural clients living in the mountainous North-East of the country, where for example, criteria as not having a fan or a blender (both questions included in the El Salvador questionnaire) is determined by climatic rather than poverty related considerations, leading to skewed results.

⁷ Excluding outliers and not considering expenses.

⁸ Encuesta de Hogares Propósitos Múltiples 2016, Dirección General de Estadísticas y Censos, El Salvador, 2017.

In the course of the project, ten credit agents and four technical assistants received training on the CTA. Unfortunately, employee turnover and the non-usage of the CTA means that agents that joined the institution after the SCBF funded intervention are not familiar with the project nor its objectives. Credit agents having participated in the training affirm that from their perspective, two main reasons explain the failure of the CTA. First, the provision of the service would have increased their workload and diminish their capacity to accomplish other essential tasks. Second and most importantly, counselling clients on the building of their houses supposes their implicit responsibility in case something goes wrong with the construction. A situation that could not only affect repayment rates but also potentially jeopardize the relationships within the communities upon which their work depends.

2.2 Client level analysis

The household level analysis is two-fold. On the one hand, the analysis assesses the impact the housing microcredits had in terms of dwelling conditions, land tenure, income and financial inclusion, as well as customer satisfaction with the financial products they purchased. On the other, it estimates the differentiated impact that the CTA component had across the same set of dimensions.

i. Loans

As expected for a housing product, customer's dwelling conditions before and after the loans improved across nearly all the dimensions were measured. Among the most common uses given to the funds, 29% of customers made home improvements (interior and exterior paint work, restoring roofs and building structures as well as erecting retention walls), 28% of customers built a house from scratch, and 25% used their loans to build new rooms, either by erecting separations within existing areas or to build new rooms adjacent to the previously constructed ones.

Access to improved water sources⁹ and proper sanitation¹⁰ are among the most important dimensions affecting quality of life, and in this sense, 94% of clients had access to a secure water source before contracting their housing loan. This high water security rate is due to government policies that have prioritized infrastructure work in this domain, especially in urban and suburban areas. Fundación Campo, through partnerships with international cooperation agencies, contributed to installing communal water tanks and piping infrastructure in several of the communities we visited. Credicampo had an indirect impact in this domain, but customers in the sample did not improve their situation along this dimension through access to the housing loans. Impact in terms of sanitation follows a similar trend. Before the housing loan, 84% of clients had access to proper sanitation facilities, and 7% (11 households) saw their situation improve. Out of these 11 households, only one used their credit loan to build a septic pit. The rest of the clients either paid for the improvements themselves or benefited from aid programs¹¹ that covered these expenses.

Improvement in the material quality of the houses is among the dimensions that saw greatest improvement. 19% of the sample rebuilt all or part of their houses using concrete or burnt bricks (p.35). A similar proportion report positive changes in the quality of the roof, as 21% of interviewees have repaired their roofs and live in houses that no longer leak water when it rains (p. 36). Concerning the quality of the floor (p.35), 18% of families no longer live in houses with dirt floors. The findings suggest that the most striking improvement concerns the available space for all the members of the household (p.34). Using the ratio of the number

⁹ The WHO defines an improved drinking water source as a source that, by nature of its construction, adequately protects the water from outside contamination, in particular from fecal matter. Common examples: piped household water connection, public, standpipe borehole, protected dug, well, protected spring, rainwater collection. Unimproved sources include: unprotected dug well, unprotected spring, surface water (river, dam, lake, pond, stream, canal, irrigation channel), vendor-provided water (cart with small tank/drum, tanker truck), bottled water (bottled water is considered improved only when the household use another improved source for cooking and personal hygiene), tanker truck water. WHO, UNICEF (2017).

¹⁰ According to the WHO, improved sanitation facilities are those hygienically separate human excreta from human contact. WHO, UNICEF (2017).

¹¹ The most common cases consist of beneficiaries of a USAID program that build dry-toilets, mainly in the department of Usulután.

of rooms in the house by the number of people living in it, almost 40% of the sample saw improvements going from an average ratio of 0.67 to 0.82 rooms per household member. These results were driven in part by the proportion of households (19%) that built a kitchen either as a separate room or outside the house (p. 36). It is worth noting that cases where the number of available rooms relative to the number of people living in the house decreased (3.2% of the sample), the difference was mostly exhibited in families that previously lived in someone else's house and were able to build or acquire their own house through the loans, somewhat offsetting the inconvenience of living in tighter spaces. Indeed, 7% of the sample was able to build or acquire their first house through the credit and 28% of the households started construction of an additional house (p. 32).

ii. Tenure Security

In terms of ownership, the vast majority of them (81%) owned the house before obtaining their first loan. 6.7% of customers obtained the property titles of the houses where they live after obtaining their first loan, while 12% still do not own the house where they live, although this situation has not stopped them from investing in repairs (p. 31). Such cases involve two types of situations: the house is owned by family members working overseas, or in the context of separated couples where the husband is the legal owner of the house but no longer lives with the family. Changes in the confidence of tenure security follow similar trends (p. 32). Over 90% of the sample was not worried about losing their house before taking the loan and declared not being worried now either. The 6% of households reporting feeling more insecure now, indicated that this is a consequence of fearing not having enough money to pay back the loan.

iii. Stress Indicators and Over Indebtedness

Results on housing conditions and customer satisfaction denote positive results, however, accounting for the risk of over indebtedness overshadows these results. The average yearly loan repayment amount in the sample is USD 2,672, a figure that includes not only housing loans but all financial obligations of the household. For El Salvador, we used three sets of indicators to measure the level of over indebtedness. Households surpassing the 30% threshold of loan repayment expenditures over total yearly income account for 45%, while using a more conservative level of 50% of yearly income reveals that 17% of the clients are heavily indebted. By contrast, when asked how hard it is to make the monthly payments, 26 % of the clients in the sample mention it being hard or very hard and 40% affirmed being worried about their ability to reimburse the loan (p. 41). Using the list of borrowers' sacrifices developed by Schicks (2014) to assess over-indebtedness by customer protection standards¹² reveals that 79% of customers show at least one sign of payment stress (p. 42). This figure is driven by the number of customers repaying previous loans with new credits, a common practice in Credicampo and not necessarily a sign of stress. Excluding this last criterion brings the percentage down to 53% of the interviewed customers. These high figures are led by 28% of the sample affirming that they have been forced to reduce consumption and in 50% of cases that in order to pay the monthly instalments of their loan they have found harder to buy food.

iv. Client Perception and Value

For the most part, results of the survey suggest that housing improvements made by Credicampo clients improved the satisfaction with their living conditions, as an overwhelmingly large proportion of clients affirm that the housing loans had a positive impact in their lives. Clearly, 75% of customers are now satisfied with the houses where they live in, while 78% affirm they would purchase the housing product again and 83% of them would definitely recommend others to take a Credicampo housing loan as they did (p. 39). It is also worth noting that none of the customers mentioned any particular difficulty in obtaining their loans. A result that is explained by the outreach methodology of the institution, consisting of

¹² These analyses are not enough to establish causality. Financial difficulties leading to one of the described behaviors could be related to financial hurdles not related to the housing loan. See appendix in p.42 for a list of indicators.

communal committees serving as intermediaries between Credicampo and its clients, as well as the close-knit relationships credit agents are encouraged to develop in the communities where they work. Concerning the perceived affordability of the product, 54% of the sample thought the price was reasonable, while almost 32% of them consider it expensive. Despite finding the loans expensive, customers tended to recognize the ease in obtaining the funds, and many mentioned that in case of financial distress, Credicampo is their only source of support. Evaluation of customer satisfaction with the CTA was not possible, as none of the customers we interviewed in Morazán recall being offered the non-financial complementary service.

v. Non-Financial Services – CTA

To assess the impact of the CTA non-financial services in El Salvador we compared the results of all the above-mentioned parameters between, on the one side, customers in the sample listed as having received the technical assistance in the framework of the 6 months pilot and on the other, those who benefited from regular HILs in Morazán and other departments.

Among the key benefits of the CTA, the non-financial services purportedly ensure that loans are used efficiently and according to a pre-established budget. By contrast, the results showed no statistically significant difference between the two groups in assuring that borrowed funds are invested in housing related expenses only (p.42). Verifying the usages given to the credits reveals that 46% of the loans were in fact multipurpose and were used in part or completely for other ends than housing. The main alternative usages being consumption, financing migrations, paying for unexpected medical expenses and refinancing previous loans. Moreover and as detailed in the Appendix, the results reveal no statistically significant difference between the two groups in any observed variable. Accounting for the fact that CTA component was not offered beyond the pilot phase, the results lead us to conclude that this element of the intervention had no discernible impact on the target population.

2.3 Sector Level Analysis

Institutions providing housing improvement loans in El Salvador serve a market where, according to recent studies (Dirección General de Estadísticas y Censos, 2017; Guevara, Arce, 2016), 7 out of 10 households are affected by qualitative housing deficits,¹³ a situation that is intensified by the series of natural hazards the country is unfortunately prone to. Prevalence of inadequate housing conditions is not only a consequence of endemic poverty and limited access to traditional sources of finance among large segments of the population, but also results from lack of resources at state level to finance housing programmes and infrastructure (UN-Habitat, 2013).

Despite shortcomings in State financing, two public agencies have contributed to the financing of proper housing among those with low incomes. While their impact at the national level is still modest, they have become crucial actors in the sector. First, the Fondo Social para la Vivienda (FSV) is an autonomous mortgage lending entity providing long-term financing at favourable interest rates (6% average). Nonetheless, requirements to qualify for these loans, such as stable employment in the formal sector, render these services unattainable for many families. Second, the Fondo Nacional Para la Vivienda Popular (FONAVIPO), operates as a second-tier bank supplying credit lines to microfinance institutions to provide HILs to customers earning up to 4 times the minimum salary and administers a non-reimbursable grant for housing improvements. Two surveyed customers in El Tránsito, San Miguel, mentioned benefiting from FONAVIPO grants and explained that the amounts received were not enough to finance their housing improvement projects and thus turned to institutions like Credicampo to complete the renovations of their houses.

¹³ Qualitative housing being defined as households living in dwellings with inadequate conditions along 6 variables taken from the Multidimensional Poverty Assessment made by the Direction General de Estadística y Censos of El Salvador (2017). These are: inadequate roof, walls or floor quality, overcrowding, tenure insecurity, and insufficient access to drinking water sources and adequate sanitation.

The private microfinance sector is composed of over 100 financial institutions, such as cooperatives, saving banks and NGOs serving customers with no access to traditional banking or state-funded programmes. Microfinance institutions are grouped in several associations. The larger amongst them, the Asociación de Organizaciones de Microfinanzas de El Salvador (ASOMI), has 14 affiliated members including some of the larger institutions in the country such as Credicampo. Most ASOMI members offer HILs. Some of which, such as Apoyo Integral¹⁴, provide CTA as part of alliances with different funding bodies. According to Credicampo management, these services are not widely offered and cannot be considered the result of imitation effects following the SCBF-funded intervention. The only institution offering a viable CTA is Habitat for Humanity El Salvador. Their methodology is stricter than the one attempted with Credicampo as the NGO takes care of all the steps of the construction of the house, noting that customers have to own the land. Work is done by professional workers and this method ensures 100% of the funds are used for housing-related expenditures. As of 2018, HFH El Salvador had a USD 34 million gross lending portfolio with long-term maturity loans of up to 10 years. They are responsible for the building of 800 houses per year and for the improvement of another 3000 dwellings.

V. GENERAL CONCLUSION

It was not the objective of this report to draw a comparison of the interventions in Cambodia and El Salvador, nonetheless, general trends in the two national contexts can be highlighted. The central premise of the interventions was the improvement of the housing loans by coupling the financial product with a CTA non-financial component. The collaboration with HFHI contributed to strengthening internal capabilities. In the case of credit officers, it provided them with the necessary tools to better understand and assess HMF loans. Furthermore, it provided a setting for experimenting with new product design methodologies that translated to other areas of the institutions. As mentioned, these services failed to reach the customers as expected due to supply and demand side limitations. At the institutional level, the provision of the product implied higher operational costs caused by the workload increase and the additional responsibilities the services called for. From the customers' perspective, the product did not seem to respond to their needs. First, customers with no building experience in El Salvador do not usually do the work themselves and tend to hire specialized workers. This is not only a source of employment in the local communities, but it also contributes to ensuring a certain quality in the construction methods. Second, for the case of El Salvador, the progressive construction pattern that the product called for did not seem to suit the aspirations of clients that prefer building their houses all at once, even if it means using lesser quality building materials. In Cambodia, customers already had their building design and budget before requesting the loans, so these services were generally not needed and were perceived as time consuming. Furthermore, clients pointed out that the staff implementing these services seemed too young and inexperienced and therefore not trustworthy. While a more thorough evaluation of customers' needs and capabilities could have anticipated these demand side limitations, these results are not necessarily a failure, as both interventions achieved greatest results at the institutional level. Finally, at the sector level, no evidence of purposeful imitation of the twined HIL-CTA product was found.

VI. RECOMMENDATIONS

Construction technical assistance: To assess the importance of CTA services in regard to the long-term impact of the loans, it is necessary to carry out a general assessment of the CTA services and identify the specific needs of clients and the microfinance institutions. This does not seem to have been carried out thoughtfully as it failed to anticipate the project's shortcomings at client level. While it could be possible that clients are not interested in the

¹⁴ <https://www.integral.com.sv/fondo-prohabitad>

services, some guidance may allow them to make more informed decisions and use their loan more efficiently. Therefore, in assessing the loan application, the purpose of the HIL should be revised to include the details of the construction materials, costs, etc. In case the evaluation reveals that these are in line with local standards, these criteria could be used to approve the loan. However, if they find that other materials or design would be more suitable based on the clients' needs and budget, then the clients will be informed, and the MFI will provide a recommendation to revise the plan in line with the approval of the loan. This could be helpful, since it will not place a heavy burden on the clients who do not need the support services but will guarantee that clients who do need the services will receive them.

It is important to note that the interviews in El Salvador revealed that the CTA failed for lack of ownership of the project by the PFI. The main motivation of Credicampo management to participate in the programme was to obtain the credit line from MicroBuild, not the relevance of the ITA for the institution. In this sense, it is important for the success of future funding projects to account for the different settings of the implementation of the program and identify the real needs and motivations of the PFIs.

Financial counselling: It is important for MFIs to keep monitoring closely the level of indebtedness of their clients and their ability to repay their loans. Furthermore, financial counselling is key, especially in the context of a growing use of microfinance credits and an increased risk of over indebtedness. Accordingly, a stronger emphasis on the implementation of financial education services, which go beyond general advice on loan repayment, is key for customers to make informed decisions. The few cases of discontent with the financial product we encountered were a direct consequence of a lack of understanding of the credit terms and interest rates. Customers seem systematically ill-equipped to understand interest rate calculations and other basic operations necessary to choose a financial product according to their needs and affordability level.

Monitoring/follow up: It is key to monitor the MFIs in the short, medium and long term in order to guarantee the sustainability of the product along with its services and achieve the long-term goals of the HIL program. Establishing direct communication lines with the intervention beneficiaries could streamline this process going forward. Reports on the projects' accomplishments did not reflect the way the intervention was received by the PFI nor its customers, which might have contributed to unrealistic expectations on the project's final impacts. Relatively small-scale interventions such as the ones this report analyses serve to test the feasibility of new products and are valuable learning experiences. Therefore, it is important to note that the non-implementation of the CTA is not in itself a failure. The intervention contributed to strengthening the institutions in ways that might not have been anticipated in the projects' objectives but are important and valued by the PFIs nonetheless.

VII. BIBLIOGRAPHY

Bateman, MILFORD (2011). Over-Indebtedness and Market Forces. *CGAP Microfinance Blog*, 11.

D'Alessio, G., & Iezzi, S. (2013). Household over-indebtedness: definition and measurement with Italian data.

Dirección General de Estadísticas y Censos El Salvador (2017). Encuesta de Hogares Propósitos Múltiples 2016.

Firth, B., & Greene, M. (2014). Over-indebtedness: A risk management approach. *Microfinance CEO Working Group*.

Guevara, Arce (2016). Estado de la vivienda en Centroamérica, *INCE, Habitat para la Humanidad*.

Hattha Kaksekar Limited. (2014) Annual Report.

Hattha Kaksekar Limited. (2015) Annual Report.

Hattha Kaksekar Limited. (2016) Annual Report.

Liv, D. (2013). Study on the drivers of over-indebtedness of microfinance borrowers in Cambodia: An in-depth investigation of saturated areas. *Cambodia Institute of Development Study*.

LOLC. (2017) Annual Report.

OXERA (2004), Are UK households over-indebted?, Commissioned by the Association for Payment Clearing Services, British Bankers Association, Consumer Credit Association and the Finance and Leasing Association.

Schicks, J. (2013). The definition and causes of microfinance over-indebtedness: a customer protection point of view. *Oxford Development Studies*, 41(sup1), S95-S116.

Schicks, J. (2014). Over-indebtedness in Microfinance—an empirical analysis of related factors on the borrower level. *World development*, 54, 301-324.

Schicks, J., & Rosenberg, R. (2011). Too Much Microcredit?: A Survey of Issues and Evidence on Over-Indebtedness among Micro-Borrowers. *CGAP Occasional Paper*.

Thaneakea Phum Cambodia. (2012) Annual Report.

UN-Habitat (2013), Perfil del sector vivienda en el Salvador. .

WHO, UNICEF (2017) Progress on drinking water, sanitation and hygiene: 2017 update and SDG baselines.

VIII. APPENDIX

Cambodia

Sampling

The sample size for each MFI was initially set to 100 with a total of 200 households in the sample. This was determined considering that the number of LOLC clients, which received HMF loans between 2013 and March 2017, was slightly over 10,000. Therefore, considering a confidence interval of 95% and an error margin of 10%, the sample size was set to 100 for LOLC clients. In the case of HKL, their HMF client base was smaller, but we selected a sample size of 100, since we considered it important to have the same sample size in both institutions for comparability.

In order to carry out the sample selection, both MFIs shared their HMF client data containing basic information of each individual which had acquired an HMF loan, including their address. The sample selection methodology used for each institution in Cambodia was a multistage cluster sampling. This was chosen because of logistics and time constraints, since the researchers had to go to each household in the sample in order to carry out the survey. Selecting households through a simple random sampling would have entailed travelling longer distances and spending more time and resources in order to reach every household in the sample. Therefore, the selection was done in three stages. The first stage consisted in a random selection of four provinces. The second stage consisted in a random selection of three districts within each province of the four selected provinces. The third stage consisted in a random selection of 16 households within each district. In cases where there were less than 16 clients per district, all of the available clients were selected. As the aim was analysing client outreach, it was important to include all of the districts in the pool so that small districts were also taken into consideration.

Although we had stipulated a sample size of 100, we selected more clients for the tentative sample because some clients may not have been available for the surveys and we did not want to reduce the sample size. Therefore, for each district, there were extra individuals in the sample list in case some individuals were not available. This is the reason why we ended up with one extra observation for HKL (N=101).

The random selection was carried out based on (Sunter 1977) by assigning a random number from the uniform distribution (0,1) to the object in question (e.g. province, district, individual) and selecting those with the smallest number assigned. That is, we assigned a random number to each of the provinces and selected the 4 provinces with the smallest numbers. The following table shows the summary of the selected sample, by province and district.

Table A 1: Provinces and districts included in the sample

Province	District
Phnom Penh	Dangkao
	Pur SenChey
	Praek Pnov
Kampot	Chhuk
	Kampong Trach
	Tuek Chhou
Kampong Speu	Kong Pisei
	Chbar Mon
	Samraong Tong
Kampong Cham	Chamkar Leu
	Cheung Prey
	Kampong Siem

Table A 2:PPI T-test LOLC

Paired t- test

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
ppi1st	49	52.16	1.57	10.99	49.01	55.32
ppi2nd	49	53.02	1.11	7.74	50.80	55.24
diff	49	(0.86)	1.60	11.20	(4.07)	2.36
mean(diff) = mean(ppi1st - ppi2nd)					t = -0.5358	
Ha: mean(diff) < 0		Ha: mean(diff) !=0			Ha:mean(diff) > 0	
Pr(T < t) = 0.2973		Pr(T>t) = 0.5946			Pr(T > t) = 0.7027	

Table A 3: PPI T-test HKL

Paired t test

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
ppi1st	100	70.58	1.19	11.88	68.22	72.94
ppi2nd	100	70.87	1.19	11.85	68.52	73.22
diff	100	(0.29)	0.82	8.20	(1.92)	1.34
mean(diff) = mean(ppi1st - ppi2nd)					t = -0.3537	
Ha: mean(diff) < 0		Ha: mean(diff) !=0			Ha:mean(diff) > 0	
Pr(T < t) = 0.3622		Pr(T>t) = 0.7243			Pr(T > t) = 0.6378	

Table A 4: Main construction material of outer wall before and after receiving a loan

	Before			Current		
	Freq.	Percent	Cum.	Freq.	Percent	Cum.
Mud bricks/earth	0	0	0	0	0	0
Wood	118	59	59	90	45	45
Meat sheet/slate/asbestos	0	0	59	1	0.5	45.5
Stone	2	1	60	0	0	45.5
Burnt bricks	28	14	74	80	40	85.5
Cement blocks/concrete	2	1	75	12	6	91.5
Bamboo, thatch, tree leaf, tree bark	26	13	88	0	0	91.5
Other (Specify)	2	1	89	0	0	91.5
Zinc sheet	22	11	100	17	8.5	100
Total	200	100		200	100	

Table A 5: Two-sample test of proportions for burnt bricks

matowc: Number of obs = 200

matowt_1: Number of obs = 200

Variable	Mean	Std. Err.	z	P>z	[95% Conf. Interval]
Burnt Brick After	0.4	0.0346			0.3321 0.4679
Burnt Brick Before	0.14	0.0245			0.0919 0.1881
diff	0.26	0.0425			0.1768 0.3432
	under Ho:	0.0443959	5.86	0	
diff = prop(After) - prop(Before)					z = 5.8564
Ha: diff < 0		Ha: diff!=0		Ha: diff > 0	
Pr(Z < z) = 1		Pr(Z < z) = 0		Pr(Z > z) = 0	

Table A 6: Two-sample test of proportions for bamboo, thatch, tree leaf, tree bark outer wall

matowc2: Number of obs = 200

matowt_12: Number of obs = 200

Variable	Mean	Std. Err.	z	P>z	[95% Conf. Interval]	
After	0	-			-	-
Before	0.13	0.0238			0.0834	0.1766
diff	-0.13	0.0238			(0.1766)	(0.0834)
	under Ho:	0.0246526	-5.27	0		
diff = prop(After) - prop(Before)					z = -5.2733	
Ha: diff < 0		Ha: diff!=0			Ha: diff > 0	
Pr(Z < z) = 0		Pr(Z < z) = 0			Pr(Z > z) = 1	

Table A 7: Main construction material of roof before and after receiving a loan

	Before			Current		
	Freq.	Percent	Cum.	Freq.	Percent	Cum.
Mud bricks/earth	0	0	0	1	0.5	0.5
Wood	0	0	0	0	0	0.5
Meat sheet	0	0	0	0	0	0.5
Slate/asbestos	24	12	12	34	17	17.59
Cement blocks/concrete	3	1.5	13.5	5	2.5	20.1
Bamboo, thatch, tree leaf	5	2.5	16	0	0	20.1
Roof tiles	41	20.5	36.5	93	46.5	66.83
Other (Specify)	1	0.5	37	0	0	66.83
Zinc sheet	126	63	100	67	33.5	100
Total	200	100		199	100	

Table A 8: Two-sample test of proportions for Roof Tiles

matroofc: Number of obs = 200

matroof_1: Number of obs = 200

Variable	Mean	Std. Err.	z	P>z	[95% Conf. Interval]	
Roof Tiles After	0.465	0.0353			0.3959	0.5341
Roof Tiles Before	0.2039801	0.0284			0.1483	0.2597
diff	0.2610199	0.0453			0.1722	0.3498
	under Ho:	0.0471111	5.54	0		
diff = prop(After) - prop(Before)					z = 5.5405	
Ha: diff < 0		Ha: diff!=0			Ha: diff > 0	
Pr(Z < z) = 1		Pr(Z < z) = 0			Pr(Z > z) = 0	

Table A 9: Source of water before and after receiving a housing loan

	Source before receiving the housing loan.			Current Source		
	Freq.	Percent	Cum.	Freq.	Percent	Cum.
Piped into dwelling	37	18.5	18.5	49	24.5	24.5
Piped outside	1	0.5	19	0	0	24.5
Bore hole/Pump/Tube well	39	19.5	38.5	43	21.5	46
Protected well	33	16.5	55	29	14.5	60.5
Rain water	1	0.5	55.5	1	0.5	61
Bottled/Sachet water	7	3.5	59	6	3	64
Unprotected well	5	2.5	61.5	3	1.5	65.5
River/stream	3	1.5	63	2	1	66.5
Pond/lake/dam/canal/dugout	34	17	80	33	16.5	83
Other,	40	20	100	34	17	100
Total	200	100		200	100	

Table A 10: Comparing proportions of households with water pumped inside dwelling before and after receiving a loan

Two-sample test of proportions

dc_q4pipeddw: Number of obs = 200

dc_q16pipedd: Number of obs = 200

Variable	Mean	Std. Err.	z	P>z	[95% Conf. Interval]	
Water piped inside dwelling after	0.245	0.0304118			0.1854	0.3046
Water piped inside dwelling before	0.185	0.0274568			0.1312	0.2388
diff	0.06	0.0410			(0.0203)	0.1403
	under Ho:	0.0410822	1.46	0.144		
diff = prop(After) - prop(Before)					z = 1.4605	
Ha: diff < 0		Ha:diff!=0		Ha:diff > 0		
Pr(Z < z) = 0.9279		Pr(Z < z) = 0.1442		Pr(Z > z) = 0.0721		

Table A 11: Toilet facility before and after receiving a housing loan

	Toilet facility before receiving the housing loan.			Current toilet facility		
	Freq.	Percent	Cum.	Freq.	Percent	Cum.
No facility (open land)	89	44.5	44.5	36	18	18
WC	96	48	92.5	148	74	92
Pit latrine	4	2	94.5	3	1.5	93.5
Other	11	5.5	100	13	6.5	100
Total	200	100		200	100	

Table A 12: No facility proportion before and after

Two-sample test of proportions

dc_q6anf: Number of obs = 200

dc_q18anf: Number of obs = 200

Variable	Mean	Std. Err.	z	P>z	[95% Conf. Interval]	
After	0.18	0.0272			0.1268	0.2332
Before	0.445	0.0351			0.3761	0.5139
diff	-0.265	0.0444			(0.3521)	(0.1779)
	under Ho:	0.0463512	-5.72	0		
diff = prop(After) - prop(Before)					z = -5.7172	
Ha: diff < 0		Ha:diff!=0		Ha:diff > 0		
Pr(Z < z) = 0		Pr(Z < z) = 0		Pr(Z > z) = 1		

Table A 13: WC proportion before and after

Two-sample test of proportions

dc_q6awc: Number of obs = 200

dc_q18awc: Number of obs = 200

Variable	Mean	Std. Err.	z	P>z	[95% Conf. Interval]	
WC After	0.74	0.0310			0.6792	0.8008
WC Before	0.48	0.0353			0.4108	0.5492
diff	0.26	0.0470			0.1679	0.3521
	under Ho:	0.048775	5.33	0		
diff = prop(Before) - prop(After)					z = 5.3306	
Ha: diff < 0		Ha:diff!=0		Ha:diff > 0		
Pr(Z < z) = 1		Pr(Z < z) = 0		Pr(Z > z) = 0		

Table A 14: Electricity connection before and after

Two-sample test of proportions

dc_q9b: Number of obs = 200

dc_q21b: Number of obs = 200

Variable	Mean	Std. Err.	z	P>z	[95% Conf. Interval]	
Electricity After	0.86	0.0244			0.813	0.909
Electricity Before	0.72	0.0318			0.654	0.779
diff	0.14	0.0401			0.066	0.223
	under Ho:	0.0407	3.54	0		
diff = prop(Before) - prop(After)					z = 3.5422	
Ha: diff < 0		Ha:diff!=0		Ha:diff > 0		
Pr(Z < z) = 1		Pr(Z < z) = 0		Pr(Z > z) = 0		

Table A 15: Separate Kitchen before and after

Two-sample test of proportions

dc_q10b: Number of obs = 200

dc_q22b: Number of obs = 200

Variable	Mean	Std. Err.	z	P>z	[95% Conf. Interval]	
Separate Kitchen After	0.72	0. .0318			0.654	0.779
Separate Kitchen Before	0.42	0.0348			0.350	0.486
diff	0.3	0.0401			0.206	0.391
	under Ho:	0.0494	3.54	0		
diff = prop(Before) - prop(After)					z = 6.0398	
Ha: diff < 0		Ha:diff!=0			Ha:diff > 0	
Pr(Z < z) = 1		Pr(Z < z) = 0			Pr(Z > z) = 0	

Table A 16: Surface area of household before and after

Paired t test

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
After	200	62.94	2.12	29.93	58.77	67.11
Before	200	39.32	1.41	19.91	36.54	42.09
diff	200	23.62	2.02	28.58	19.64	27.61
mean(diff) = mean(After - Before)					t = 11.6889	
Ha: mean(diff) < 0		Ha: mean(diff) !=0			Ha:mean(diff) > 0	
Pr(T < t) = 1		Pr(T > t) = 0			Pr(T > t) = 0	

Table A 17: Number of rooms before and after

Paired t test

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
After	200	3.20	0.10	1.41	3.00	3.40
Before	200	1.91	0.08	1.08	1.75	2.06
diff	200	1.30	0.09	1.26	1.12	1.47
mean(diff) = mean(After - Before)					t = 14.5427	
Ha: mean(diff) < 0		Ha: mean(diff) !=0			Ha:mean(diff) > 0	
Pr(T < t) = 1		Pr(T > t) = 0			Pr(T > t) = 0	

Table A 18: Income source by MFI clients

Income Source	HKL		LOLC		Total	
	Mean	Sd.	Mean	Sd.	Mean	Sd.
Non-farm self-employment	2,248	5,193	1,056	2,482	1,649	4,097
Self-employment	1,061	4,928	641	1,044	850	3,551
Non-farm salaried employment	3,381	3,206	3,576	3,533	3,479	3,367
Agricultural salaried employment	350	1,279	122	458	236	963
Migration income/remittances	1,443	2,918	1,301	2,382	1,372	2,656
Other income	460	1,424	137	727	298	1,138
Total household income	8,945	4,158	6,833	4,357	7,884	4,378

Table A 19: Summary of Income per person per day

	Percentiles	Smallest		
1%	0.8864971	0.7100456		
5%	1.66137	0.8684931		
10%	2.089041	0.8864971	Obs	201
25%	2.782192	1.07774	Sum of Wgt.	201
50%	3.719178		Mean	4.350756
	Largest		Std. Dev.	2.321712
75%	5.30411	11.50685		
90%	7.479452	11.50685	Variance	5.390344
95%	8.876713	12.121	Skewness	1.402986
99%	11.50685	14.72603	Kurtosis	5.483178

Table A 20: Source of income

Source	Mean
Non-farm self-employment	17.37
Farm self-employment	11.05
Non-farm salaried employment	45.32
Agricultural salaried employment	3.89
Migration income/remittances	19.34
Other income	3.02

Table A 21: Non-farm salaried employment sectors

Main Sector of HHHs	Freq.	Percent	Cum.
Mining	1	0.72	0.72
Manufacturing	1	0.72	1.44
Construction	12	8.63	10.07
Commerce	2	1.44	11.51
Transport,/storage	6	4.32	15.83
Services (excluding domestic work)	2	1.44	17.27
Services (domestic work)	1	0.72	17.99
Textile/garment	68	48.92	66.91
Government	9	6.47	73.38
Other	8	5.76	79.14
More than one sector	29	20.86	100
Total	139	100	

Table A 22: Non-Farm Self-Employment Sector

Self-Employment Sectors	Freq.	Percent	Cum.
Manufacturing	5	5.88	5.88
Utilities	1	1.18	7.06
Construction	7	8.24	15.29
Commerce	34	40	55.29
Transport/storage	8	9.41	64.71
Services (Domestic work)	2	2.35	67.06
Textile/garment	2	2.35	69.41
Other,	14	16.47	85.88
More than one sector	12	14.12	100
Total	85	100	

Table A 23: Total borrowed in the last 5 years

MFI	mean	sd
HKL	10,756	7,361
LOLC	8,234	7,586
Total	9,489	7,562

Table A 24:: Total HIL

MFI	mean	sd
HKL	8,087	5,463
LOLC	5,042	3,683
Total	6,557	4,887

Table A 25: Purpose of non-HIL loans

Purpose	Freq.	Percent
Buy foodstuff	8	5%
Develop or expanded agri-business	28	16%
Develop or expanded non agri-business	18	10%
Medical care/treatment	4	2%
Repay loan/debt	5	3%
Outmigration	0	0%
Education	6	3%
Buying assets or any household equipment	77	44%
Other disasters/climate shock	0	0%
Wedding/social events	1	1%
Other (specify)	30	17%
Total Number of loans other than housing MF	177	

Table A 26: Purpose of HIL

	HKL		LOLC		Total	
Build a house	73	58%	84	63%	157	61%
Repair/renovate home	28	22%	17	13%	45	17%
Room extension	26	21%	22	16%	48	19%
Buy residential land	0	0%	0	0%	0	0%
Electricity connection	0	0%	1	1%	1	0%
Septic tank Construction	0	0%	0	0%	0	0%
Toilet construction	2	2%	11	8%	13	5%
Other	25	20%	19	14%	44	17%
Total MFI loans	125		134		259	

Table A 27: Total Principle

Variable	Obs	Mean	Std. Dev.	Min	Max
Total Principle	201	4621.876	5038.281	0	33000

Table A 28: Percent loan repayment out of total income

Percentiles	Smallest			
1%	1.604278	1.378685		
5%	7.868853	1.604278		
10%	12.48	2.015504	Obs	192
25%	19.16856	2.428884	Sum of Wgt.	192
50%	28.05028		Mean	30.26291
	Largest		Std. Dev.	16.3761
75%	38.26019	70.71057		
90%	49.23798	71.2401	Variance	268.1766
95%	57.14286	87.82334	Skewness	1.25511
99%	87.82334	118.4416	Kurtosis	7.040041

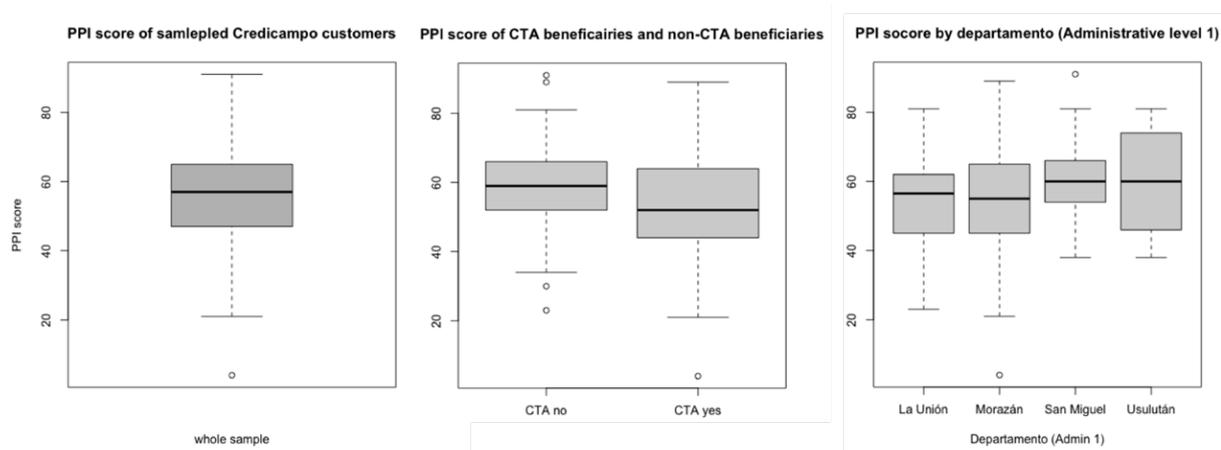
El Salvador

Table B 7: PPI results for Credicampo sampled customers – El Salvador

	Average PPI	National poverty line	Food Poverty line	150% of the national poverty line	USAID extreme poverty line	\$1.25/Day/2005 PPP Poverty Line	Nbr. of clients	
Whole sample	56.4	19.3%	2.2%	49.50%	5.70%	28.20%	157	
Pilot	CTA Pilot - Yes	53.7	27.5%	2.9%	55.10%	9.20%	37.60%	75
	CTA Pilot - No	58.8	19.3%	2.2%	49.50%	5.70%	28.20%	82
Departamentos	Morazán	54.9	19.3%	2.2%	49.50%	5.70%	28.20%	98
	La Unión	54.4	27.5%	2.9%	55.10%	9.20%	37.60%	20
	San Miguel	61.2	11.8%	0.3%	32.50%	0.70%	18.30%	30
	Usulután	60.6	11.8%	0.3%	32.50%	0.70%	18.30%	9
All portfolios combined	N.A.	34.8%	9.4%	55.7%	15.29	N.A.	377	
2016 data	Morazán	N.A.	40.1%	10.9%	60.9%	18.3%	N.A.	74
	La Unión	N.A.	32.9%	8.4%	54.6%	13.8%	N.A.	66
	San Miguel	N.A.	32.8%	8%	54.2%	13.6%	N.A.	100
	Usulután	N.A.	37.9%	10.9%	57.1%	17%	N.A.	101

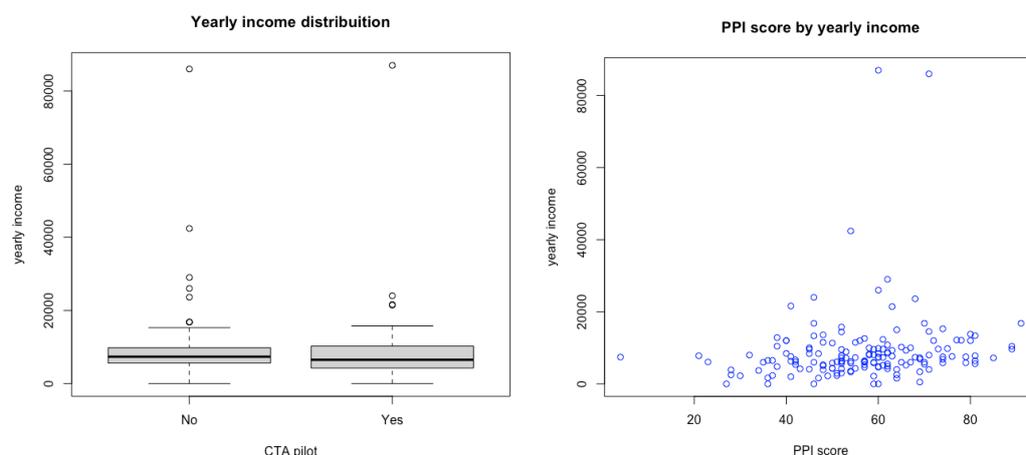
Source: Credicampo and own data

Figure B 3: Distribution of PPI scores of Credicampo customers



Source: own data

Figure B 4: Yearly income distribution and PPI scores for Credicampo customers



Source: own data

El Salvador Survey results

Table B 8: Ownership - Who owns the house where you live? Before 1st loan and now

	Improvement	No change - negative	No change - positive	Worst off
Whole sample	6.7%	12.0%	80.7%	0.7%
CTA no	6.5%	18.2%	74.0%	1.3%
CTA yes	6.8%	5.5%	87.7%	0.0%

Number of cases in table: 150

Number of factors: 2

Test for independence of all factors:

Chisq = 6.859 df = 3 p-value = 0.07654

Chi-squared approximation may be incorrect

- Improvement Customers reporting changes in ownership - From living at someone else's home to owing their house and living in it
- No change – negative Customers reporting no change in ownership and living at someone else's house, regardless if they pay rent or not
- No change – positive Customers living in their own house before the 1st housing loan and now
- Worst off Customers reporting changes in ownership - From owing a house and living in it to living at someone else's house, regardless if they pay rent or not

Table B 9: Tenure security - Worried someone or an institution might take away your house. Before and after housing loan

	More secured	No change - insecure	No change -secure	More insecure
Whole sample	2.2%	1.5%	90.3%	6.0%
CTA no	2.9%	1.5%	89.7%	5.9%
CTA yes	1.5%	1.5%	90.9%	6.1%

Number of cases in table: 134

Number of factors: 2

Test for independence of all factors:

Chisq 0.31182 df 3 p-value 0.9578

Chi-squared approximation may be incorrect

Table B 10: Number of houses in the family

	1st house	Improvement	No change - negative	No change - positive	Worst off
Whole sample	7.0%	5.1%	5.7%	81.5%	0.6%
CTA no	8.5%	6.1%	8.5%	75.6%	1.2%
CTA yes	5.3%	4.0%	2.7%	88.0%	0.0%

Number of cases in table: 157

Number of factors: 2

Test for independence of all factors:

Chisq = 4.919 df = 4 p-value = 0.2957

Chi-squared approximation may be incorrect

- 1st house Families that acquired or built their first house through the housing loan
- Improvement Families that owned at least one house before the housing loan and built or acquired an additional house after taking the housing loan (regardless if the additional house was financed through the housing loan)
- No change –
Negative Families that did not own a house before and after the housing loan
- No change –
positive Families that owned a house before the loan and own the same number of houses now
- Worst off Families that owned a house before the loan and do not own one now

1. Dwelling conditions

Table B 11: Changes in the source of drinking water

As per WHO definition of improved water source (see below).

	Improvement	No change - negative	No change - positive
Whole sample	1.3%	4.6%	94.1%
CTA yes	0%	2.5%	97.5%
CTA no	2.7%	6.8%	90.5%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.0488, df = 2, p-value = 0.9759

Improved source Piped household water connection, public, standpipe borehole, protected dug, well, protected spring, rainwater collection

Unimproved source unprotected dug well, unprotected spring, surface water (river, dam, lake, pond, stream, canal, irrigation channel), vendor-provided water (cart with small tank/drum, tanker truck), bottled water (bottled water is considered improved only when the household use another improved source for cooking and personal hygiene), tanker truck water.

Table B 12: Changes in sanitation

	Improvement	No Change - negative	No change - positive	Worst off
whole sample	7.0%	7.6%	84.7%	0.6%
CTA yes	13.3%	10.7%	76.0%	0.0%
CTA no	1.2%	4.9%	92.7%	1.2%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.15109 df = 3 p-value = 0.9851

Chi-squared approximation may be incorrect

Improvement Households that did not have installations allowing the secure disposal of residual water before the housing loan and do have them now

No change - negative Households that did not have access to secure water disposal of residual water before the loan and do not have them now

No change - positive Households that had access to a proper water disposal installation before and after the credit

Worst off Households that went from having a proper residual water installation before the housing loan to living in a house that does not have one.

Table B 13: Available space - Changes in the ratio of available rooms (excluding kitchen) and number of people living in the house

	Improvement	No change	Worst off
Whole sample	39.5%	57.3%	3.2%
CTA yes	44.0%	54.7%	1.3%
CTA no	35.4%	59.8%	4.9%

Number of cases in table: 157

Number of factors: 2

Test for independence of all factors:

Chisq = 2.462 df = 2 p-value = 0.292

Chi-squared approximation may be incorrect

Table B 14: Ratio of number of available rooms per household (excluding kitchen) by number of people living in the house

	Now	Before
Whole sample	0.82	0.67
CTA yes	0.72	0.57
CTA no	0.91	0.76

Table B 15: Electricity connection

	Improvement	No Change- positive
Whole sample	7.5%	92.5%
No	7.8%	92.2%
Yes	7.1%	92.9%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.00030511 df = 1 p-value = 0.9861

Chi-squared approximation may be incorrect

Improvement Households that obtained a connection to the electric network after the credit

No change - Positive Households that had a connection to the electric network before the housing loan and have one now

2. Improvement in the building materials

Table B 16: Changes in walls and structure quality (excluding new houses)

	Improvement	No change	Worst off
Whole sample	19.6%	79.1%	1.4%
CTA no	18.8%	78.8%	2.5%
CTA yes	20.6%	79.4%	0.0%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.025887 df = 2 p-value = 0.9871

Chi-squared approximation may be incorrect

Improvement Houses which before the housing loan had most of its walls made of mud bricks, tin or bamboo, and now have walls made of concrete or earth bricks

No change No change in the building materials of the house

Worst off Households that went from living in earth or concrete brick house to living in houses where the main most of the walls are either built in mud bricks, tin or bamboo.

Table B 17: Changes in floor quality

	Improvement	No change - negative	No change - positive
Whole sample	18.4%	13.2%	68.4%
CTA no	13.9%	13.9%	72.2%
CTA yes	23.3%	12.3%	64.4%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.028951 df = 2 p-value = 0.9856

Chi-squared approximation may be incorrect

Improvement Houses with dirt floors before the credit that installed either concrete, brick or ceramic tiles

No change negative Houses with dirt floors before and after the housing loan

No change positive Houses that already had either concrete, brick to ceramic tiles before the credit

Table B 18: Kitchen - built a separate kitchen

	Improvement	No change - negative	No change - positive	Worst off
Whole sample	19.0%	17.0%	63.4%	0.7%
CTA no	17.5%	20.0%	61.3%	1.3%
CTA yes	20.5%	13.7%	65.8%	0.0%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq =
0.028322 df = 3 p-value = 0.9987

Chi-squared approximation may be incorrect

Table 19: Roof quality - leaks

	Improvement	No change - positive	No change - negative	Worst off
Whole sample	21.3%	36.7%	35.3%	6.7%
CTA no	23.1%	41.0%	29.5%	6.4%
CTA yes	19.4%	31.9%	41.7%	6.9%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.03547 df = 3 p-value = 0.9982

Chi-squared approximation may be incorrect

Improvement	Houses that had water leaking from the ceiling before the housing loan, and do not have leaks now
No change positive	Houses that did not have water leaking from the ceiling before the housing loan and do not have leaks now
No change negative	Houses that had water leaking from the ceiling before and after the housing loan
Worst off	Houses that did not have water leaking from the ceiling before the housing loan, has leaks now

Table B 20: Cracks in the walls

	Improvement	No change - positive	No change - negative	Worst off
Whole sample	8.1%	71.8%	14.8%	5.4%
CTA no	5.1%	79.5%	11.5%	3.8%
CTA yes	11.3%	63.4%	18.3%	7.0%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq =
0.06589 df = 3 p-value = 0.9956

Chi-squared approximation may be incorrect

Improvement	House had fissures in the walls before the housing loan and does not have fissures now
No change positive	House did not have fissures in the walls before nor after the housing loan
No change negative	House had fissures in the walls before and after the housing loan
Worst off	House did not have fissures in the walls before the housing loan, it has fissures now

3. Satisfaction with dwelling conditions

Table B 21: How satisfied are you with your house in general?

	Dissatisfied	Neutral	Satisfied
Whole sample	0.7%	24.1%	75.2%
CTA no	1.4%	27.1%	71.4%
CTA yes	0.0%	21.1%	78.9%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq =
0.025471 df = 2 p-value = 0.9873

Chi-squared approximation may be incorrect

Table B 22: How satisfied are you with the comfort of the house (enough space for all the members of family)?

	dissatisfied	neutral	satisfied
Whole sample	2.5%	23.6%	73.9%
No	2.4%	23.2%	74.4%
Yes	2.7%	24.0%	73.3%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq =
0.0003229 df = 2 p-value = 0.9998

Chi-squared approximation may be incorrect

Table B 23: How satisfied are you with the sanitation facilities in your house?

	Dissatisfied	Neutral	Satisfied
Whole sample	10.2%	23.6%	66.2%
CTA no	12.2%	23.2%	64.6%
CTA yes	8.0%	24.0%	68.0%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.009714 df = 2 p-value = 0.9952

Chi-squared approximation may be incorrect

4. Financial Inclusion

Table B 24: Was able to save in a bank account in the last year

	No	Yes
Whole sample	72.4%	27.6%
CTA no	69.1%	30.9%
CTA yes	76.0%	24.0%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.011834 df = 1 p-value = 0.9134

Chi-squared approximation may be incorrect

Table B 25: At least one member of the family has a bank account

	No	Yes
Whole sample	66.2%	33.8%
CTA no	62.2%	37.8%
CTA yes	70.7%	29.3%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.016091 df = 1 p-value = 0.8991

Chi-squared approximation may be incorrect

Table B 26: Have you been able to save any money in the last 12 months?

	No	Yes
Whole sample	72.9%	27.1%
CTA yes	75.7%	24.3%
CTA no	70.4%	29.6%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.007144 df = 1 p-value = 0.9326

Chi-squared approximation may be incorrect

5. Results

Table B 27: How would you answer to the following statement? There have been changes in your household as a result of the housing loan

	Agree	Disagree	Neutral
Whole sample	96.2%	0.6%	3.2%
CTA yes	97.3%	1.3%	1.3%
CTA no	95.1%	0.0%	4.9%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.03382 df = 2 p-value = 0.9832

Chi-squared approximation may be incorrect

Table B 28: If you agree, were these changes positive or negative?

	Positive	Negative	Don't know
Whole sample	90.3%	3.9%	5.8%
CTA yes	90.4%	4.1%	5.5%
CTA no	90.1%	3.7%	6.2%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.000628 df = 2 p-value = 0.9997

Chi-squared approximation may be incorrect

Table B 29: Would take the loan again

	Yes	No	Don't know
Whole sample	77.7%	14.0%	8.3%
CTA yes	77.3%	16.0%	6.7%
CTA no	78.0%	12.2%	9.8%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.010979 df = 2 p-value = 0.9945

Chi-squared approximation may be incorrect

Table B 30: How do you estimate the cost of the housing loan?

	Cheap	Don't know	Expensive	Fair
Whole sample	12.7%	0.6%	31.8%	54.8%
CTA yes	8.0%	1.3%	41.3%	49.3%
CTA no	17.1%	0.0%	23.2%	59.8%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.10727 df = 3 p-value = 0.991

Chi-squared approximation may be incorrect

Table B 31: How would you describe the requirements in terms of guarantees needed to obtain the housing loan?

	Demanding	Manageable	Reasonable
Whole sample	3.9%	18.7%	77.4%
CTA yes	2.7%	21.9%	75.3%
CTA no	4.9%	15.9%	79.3%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.016735 df = 2 p-value = 0.9917

Chi-squared approximation may be incorrect

Table B 32: How would you describe the requirements in terms of the paperwork needed to obtain the housing loan?

	Demanding	Manageable	Reasonable
Whole sample	3.2%	33.5%	63.2%
CTA yes	5.5%	32.9%	61.6%
CTA no	1.2%	34.1%	64.6%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.028038 df = 2 p-value = 0.9861

Chi-squared approximation may be incorrect

Table B 33: Would you recommend to your friends and family to take a housing loan?

	Yes	No	Don't know
Whole sample	82.8%	7.0%	9.6%
CTA yes	81.3%	10.7%	8.0%
CTA no	84.1%	3.7%	11.0%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.05162 df = 3 p-value = 0.9969

Chi-squared approximation may be incorrect

6. Stress indicators and over-indebtedness

Table B 34: How would you respond to the following statement? In order to pay back the housing loan it was harder for my family to buy food

	Agree	Disagree	Neutral
Whole sample	50.3%	42.0%	7.6%
CTA yes	50.7%	44.0%	5.3%
CTA no	50.0%	40.2%	9.8%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.014682 df = 2 p-value = 0.9927

Chi-squared approximation may be incorrect

Table B 35: To pay back the housing loan, have you done any of the following:

- 1 - Get another loan
- 2 - Not paying other debts
- 3 - Sell an object or an animal you were not expecting to sell
- 4 - Rent you land
- 5 - Reduce consumption
- 6 - Search for additional work (locally or internationally)
- 7 - Receive help from friends or family

Adapted from Schicks, Jessica. 2014. 'Over-Indebtedness in Microfinance – An Empirical Analysis of Related Factors on the Borrower Level'. World Development 54 (February): 301–24.

	No	Yes
Whole sample	21.0%	79.0%
CTA yes	14.7%	85.3%
CTA no	26.8%	73.2%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.04498 df = 1 p-value = 0.832

Chi-squared approximation may be incorrect

Table B 36: Customers having used at least part of the housing loans for other unrelated purposes (including refinancing previous loans)

	Used only for housing	Used at least in part for other unrelated purposes
Whole sample	53.5%	46.5%
CTA yes	56.0%	44.0%
CTA no	51.2%	48.8%

Number of cases in table: 2

Number of factors: 2

Test for independence of all factors:

Chisq = 0.004595 df = 1 p-value = 0.946

Chi-squared approximation may be incorrect

Terms of Reference (ToR)

Mandate for the Housing Microfinance Result Study of the Swiss Capacity Building Facility (SCBF)

Background

The Swiss Capacity Building Facility (SCBF, <http://www.scbf.ch>) is a public-private development partnership established in April 2011 to assist financial institutions such as insurance companies, microfinance banks, and savings and commercial banks, in significantly scaling up their outreach to low-income people in developing and emerging countries.

The SCBF intends to launch an empirical result study on Housing Microfinance (HMF) related to two product upscaling interventions completed with two financial institutions in Cambodia and one in El Salvador in 2014. The methodology applied combines a loan to low-income households for improvement of an existing home or construction of a new home and basic infrastructure with Construction Technical Assistance (CTA). All SCBF technical assistance grants related to Housing were executed by Habitat for Humanity International (HFHI) and more specifically by Habitat's Center for Innovation in Shelter and Finance (CISF, <https://www.habitat.org/impact/our-work/terwilliger-center-innovation-in-shelter>). The projects were implemented with different Partner Financial Institutions (PFIs), namely LOLC (formerly Thaneakea Phum Cambodia (TPC) and Hattha Kaksekar Limited (HKL) in Cambodia and CrediCampo in El Salvador.

The following projects on Housing Microfinance have been funded by the SCBF, though only the ones in Cambodia and El Salvador will serve as reference for the result study:

Project	Partner Financial Institution	Focus	Completion Date	Competence Center	SCBF Contribution	Key Documents
SCBF 2012-05	LOLC (formerly Thaneakea Phum Cambodia (TPC)) and Hattha Kaksekar Limited ("Farmers Hand" in Khmer, HKL), Cambodia	Up-scaling of Cambodian Housing Microfinance Products by Hattha Kaksekar Limited and Thaneakea Phum Cambodia	02/2014	Habitat for Humanity International	CHF 93'278	SCBF 2012-05_Project document 2012-05_FactSheet_Cambodia_Habitat_TPC-Cambodia.pdf SCBF_2012-05_Final-Report_Cambodia_Habitat_TPC_HKL_final.pdf
SCBF 2013-11	CrediCampo (El Salvador)	Building Capacity to Expand Housing Microfinance in Central America – El Salvador	10/2014	Habitat for Humanity International	CHF 102,459 (for both El Salvador and Honduras)	SCBF_Application_El Salvador & Honduras_Habitat 2013-11_FactSheet_El-Salvador-Honduras_Habitat.pdf

						SCBF_2013-11_Final-Report_EI-Salvador_CAMPO_Habitat.pdf
SCBF 2013-11	Comixmul (Honduras)	Building Capacity to Expand Housing Microfinance in Central America - Honduras	04/2015	Habitat for Humanity International	CHF 102,458.64 (for both El Salvador and Honduras)	n.a.
SCBF 2014-08	Urwego Opportunity Bank Ltd in Rwanda and IMF Hekima SC in DRC	Building Capacity to expand Housing Microfinance in the Great Lakes Region		Habitat for Humanity International	CHF 130'334	n.a.

Up-scaling of Cambodian Housing Microfinance Products (HMP) by Hattha Kaksekar Limited and Thaneakea Phum

The SCBF intervention targeted two PFIs: Thaneakea Phum Cambodia (TPC) and Hattha Kaksekar Limited ("Farmers Hand" in Khmer, HKL). Both PFIs were in the pipeline for an investment of MicroBuild Fund, an investment vehicle focusing on housing that aims to demonstrate the viability and scale opportunity of Housing Microfinance via longer-term capital. In preparation of the investment and with support of the SCBF, **TPC** wanted to increase the number of HMF loans disbursed and test whether construction technical advice would help clients improving their living conditions. **HKL** wanted to improve its general construction loan and create two separate products that respond to client needs and specifically target residential non-commercial re/construction activities. Therefore, Habitat for Humanity Cambodia together with Habitat's Center for Innovation in Shelter and Finance (thereafter referred to as 'Habitat') supported TPC and HKL in:

- Institutional diagnostic assessment
- Development and training of a Housing Microfinance core team within each PFI
- Product development, including training in market research. Research focused on the demand and housing preferences in the key target areas. It included key informant interviews with other housing value chain actors, such as masons and suppliers.
- Pilot support and monitoring, including development of product manuals, marketing plans/materials, MIS adjustment, and providing training to branch and management staff.

Expanding Housing Microfinance in El Salvador

Prior to the SCBF intervention, CrediCampo offered a housing product, but it wanted to increase the number of loans disbursed and include housing support services such as construction technical assistance. In March 2013, CrediCampo received a grant of one million USD from the MicroBuild fund, with a capacity building component funded by the SCBF and provided by Habitat for Humanity International (HFHI). CrediCampo actively participated in the entire capacity building process, which started in September 2013 and included:

- Market and customer satisfaction survey to understand needs, preferences and abilities of potential clients
- Redesign of the pre-existing HMF product, including technical assistance for construction
- Planning, implementation and monitoring of a six-month pilot in two agencies within Morazan township
- Training
- Adaptation of the information systems to collect and classify information and reports that enable trend analysis and therefore the preparation of financial projections and a more realistic cash flow.

Objectives of the Study

The Result Study shall capture outreach and outcomes at the level of the target client groups (e.g. through a statistically representative client satisfaction & outcome survey and selected in depth client interview and/or focus group discussions) and the Partner Financial Institutions (PFI), including an assessment at the sector level to generate key lessons for the industry overall and for the SCBF.

The SCBF is looking for a Researcher with a team of assistants/students to carry out this study and taking responsibility for the methodology, design of the study, training of people who conduct actual survey, quality control of the study and report drafting. This Terms of Reference (ToR) shall outline the scope and key objectives of the result study, as well as deliverables, timeline and budget.

Specifically, the result study shall meet the following objectives:

1. Assess the outcome at the Household level in terms of (i.) behavioural change and (ii.) *perceived* change in business performance; poverty/assets/housing outcome and resilience & vulnerability (as a proxy for impact), *where* relevant. Specific to Housing Microfinance, assess outcome of home improvement at client level in terms of change in safety, health, equity (value of house), comfort, tenure, privacy, security, construction quality, access to sanitation, energy and water, etc.
 2. Evaluate the outreach of the Partner Financial Institution, incl. capacity of the PFI to evaluate and respond to Housing Microfinance needs of the market (i.e. capacity to develop and provide demand-driven and financially sustainable products).
 3. Assess customer satisfaction with main features of Housing Microfinance products, incl. loan size, loan terms, loan acquisition, and construction technical assistance and customer value, when compared to other alternatives in the market.
 4. Assess results at the sector level, i.e. beyond the Partner Financial Institution.
 5. Draw actionable recommendations for the industry and for SCBF's future activities in the area of Housing Microfinance.
- - Whenever possible, data shall be compared with national averages/benchmark and the situation prior to the intervention. Key data sources (not exhaustive) for national data include:
 - FinScope survey, <https://www.finmark.org.za/finscope/>
 - UNCDF Map, <http://map.uncdf.org>
 - Landscape Microinsurance studies, <http://www.microinsurancenetw.org/resource-topic/landscape-study>
 - MixMarket, <http://www.microinsurancenetw.org/resource-topic/landscape-study>
 - CGAP Microfinance Gateway, <http://www.microfinancegateway.org/fr>
 - World Bank Financial Inclusion, <http://www.worldbank.org/en/topic/financialinclusion>
 - Brooking Financial and Digital Inclusion Report, <https://www.brookings.edu/research/the-2016-brookings-financial-and-digital-inclusion-project-report/>
 - National economic and health surveys, for example, the demographic and health surveys (often found on measuredhs.org or on government websites)

Analytical Framework

- **The analytical framework below highlights five key categories to be assessed and summarized in the result study, potential indicators as well as the respective source (primary source and in brackets secondary source).** Not all indicators will apply to every study, nor is the list exhaustive but rather the Researcher will define specific outreach/outcome indicators for each

study based on the articulated Result Chain.¹⁵

- To the extent possible these indicators shall be compared with national average/benchmark, project initial target, and Outreach/Outcome prior to the intervention.

NR	CATEGORY	FOCUS	POTENTIAL INDICATORS	SOURCE
1	CLIENT OUTREACH AND PROFILE	Client data, transactions Socio-economic profile of customers <i>Specific indicators available for Loan/Saving products, Insurance products and Mobile Payments</i>	<ul style="list-style-type: none"> • Outreach indicators (see Template Final Report SCBF in Annex 1) 	MIS data (HH survey)
2	BEHAVIOR CHANGE AND IMPACT INDICATION ¹⁶ (Poverty and resilience are relevant to all funded interventions. Where applicable, the proposed business performance indicators should be used as well)	Behaviour change of customers/beneficiaries, which then results in change in: Business Performance Poverty/Assets/Housing Outcomes Resilience & Vulnerability <i>(Focus on customers' own perception)</i>	<ul style="list-style-type: none"> • Change in behaviour (intervention-specific behaviour change and impact indicators) • Change in attitudes (intention, priority) • Change in knowledge • Change in business revenue (monthly sales) • Change in business assets • Business attitude (level of confidence in ability to be successful at business) • Change in economic poverty (with respect to national poverty line) • Acquisition of household assets (e.g. radio, TV, refrigerator, furniture, bicycle, etc.) • Change in income (% of households who say their income has increased/decreased /remained stable since introduction of product) • Change in quality of life (e.g. access to and type of toilet, drinking water, energy sources for cooking, etc.) • Change in Housing (e.g. % of households with improved roof, floor or walls; expanded house, improved water or sanitation, got electricity or major improvement in lighting; etc.) • Change in Financial Tools (Change in cash savings balance with the PFI or change in liquid assets) • Change in self-perceived resilience (Change in self-perception of future risk/situation) 	HH survey (MIS data)

¹⁵ The Result Chain describes the causal logic of how and why an intervention will reach its intended outcomes and helps in identifying project-specific outcome indicators (See generic example Annex 2).

¹⁶ Based on Social Performance Task Force (SPTF) Outcome Working Group – List of harmonized social outcome indicators.

			<ul style="list-style-type: none"> • Change in health and safety • Food Security (Improved food intake in the household) 	
3	CUSTOMER SATISFACTION AND VALUE¹⁷	Four key dimensions: Product (Usage), Access, Cost and Experience	<ul style="list-style-type: none"> • Customer satisfaction with product's main features (incl. usage of product and effective usage of product) • Ease of access/simplicity of usage • Perceived value for money and affordability • How likely customers are to recommend product/service • Value by clients of construction Technical Assistance 	HH survey (Staff interview)
4	PARTNER FINANCIAL INSTITUTION	Financial and Operational Performance, Social Performance, Strategy	<ul style="list-style-type: none"> • PFI indicators (see Template Final Report SCBF in Annex 1) 	Staff interview MIS data
5	SECTOR LEVEL	Result at the sector level following intervention/project (to the extent possible)	<ul style="list-style-type: none"> • Deepening of financial inclusion • Imitation effects 	Desktop research Staff & stakeholder interview

Methodological Approach

- **The Researcher team is expected to visit the Partner Financial Institutions (PFI) in Cambodia and El Salvador and collect and analyse data resulting from the interventions at three levels: (i) the end users (i.e. individuals who obtain a home improvement/construction loan with construction technical assistance from the Partner Financial Institution); (ii) Partner Financial Institutions, and (iii.) Sector level.** It is a post-intervention assessment and the approach should combine desktop research, quantitative and qualitative data from both direct interviews with clients and PFIs as well as MIS data.

- The study shall be based on a representative sampling of clients considering geographic focus (nationwide vs. selected regions/branches), gender, age, income level, others (e.g. education level, etc.). As guidance, the SCBF recommends using a sample size of about 200 household surveys. For the SCBF it is important to draw a comparison between 'before' and 'after' the intervention. The SCBF does not expect a randomized control trial (RCT) for this outcome study, nor an impact evaluation with control groups. As there is no baseline the focus shall be on **Clients' Recall (perception through household survey)**, thought a mix of methods shall be used whenever possible to compare changes:

- Clients' recall (Household survey) – research questions asking clients to recall their status on selected indicators “before” the intervention and their status “now”.
- Proxy baseline data (MIS data) – Retrieving historical data from MIS of PFI for selected indicators allowing for comparison over time, if relevant and data available.
- Cross-sectional analysis (MIS data) – comparing data for different clients in different cycles (e.g. client vs. non-client, 1st usage vs. recurring user, etc.). Data collection here relies on MIS data and capabilities of the PFI.
- National average/benchmark - comparing data with trends in national benchmark and studies (e.g. Financial Inclusion Landscape Study), especially where recent data are available.

¹⁷ Based on Microinsurance Innovation Facility, How to conduct a PACE client value assessment. Update planned for June 2017 with focus on Agricultural Insurance.

With regards to the **Household Survey**, it shall collect client outcome data and assess customer satisfaction & value, potential behaviour change triggered by using Housing products, and perceived change in selected outcome indicators (business performance, poverty/assets/housing outcomes, resilience & vulnerability), where applicable. The household survey shall ideally include a combination of written structured questionnaire and focus group discussion that the Researcher will develop. The survey will be drafted in collaboration with PFI to ensure their commitment and added value. The table below shall provide some examples (non-exhaustive) with regards to potential questions:

CATEGORIES	DESCRIPTION	QUESTION EXAMPLES
BEHAVIOUR CHANGE AND IMPACT INDICATION	<ul style="list-style-type: none"> • Assess outcome at the client level in terms of change in business performance, poverty & assets and resilience & vulnerability 	<ul style="list-style-type: none"> • What is your income today? What was your income at t-1 (before starting to use new product/service) • There have been changes in my home because of Housing Microfinance product: <ul style="list-style-type: none"> ○ A. Strongly agree ○ B. Agree ○ C. Neutral ○ D. Disagree ○ E. Strongly disagree • Were these changes positive or negative? <ul style="list-style-type: none"> ○ A. Positive <ul style="list-style-type: none"> i. Please explain the positive changes in your life because of (product/ service) ii. Out of those changes, which one is most important to you? ○ B. Negative. Please explain your answer • There have been changes in the health of the family members because of Housing Microfinance product: <ul style="list-style-type: none"> ○ A. Strongly agree ○ B. Agree ○ C. Neutral ○ D. Disagree ○ E. Strongly disagree • There have been changes in the safety of the family members because of Housing Microfinance product: <ul style="list-style-type: none"> ○ A. Strongly agree ○ B. Agree ○ C. Neutral ○ D. Disagree ○ E. Strongly disagree
CUSTOMER SATISFACTION AND VALUE	<ul style="list-style-type: none"> • Assess customer value of the specific product when compared with competition and alternatives in the market • Assess customer satisfaction with product's main features (e.g. size, terms, construction technical assistance, etc.) incl. whether product is adapted to their financial needs • Reason for purchasing • Perceived value for money • Assess usage of new product/service, identifying factors that drive up-take as well as potential barriers • Customer experience • Change in value of house • Change in household's housing expenses • 	<ul style="list-style-type: none"> • Why did you purchase (product/service)? • How would you rate the value for money of (product/service)? Please explain your answer <ul style="list-style-type: none"> ○ A. It is expensive ○ B. It is fair ○ C. It is cheap • How is the quality of (product/service) compared to the (product/service) you were using before? Please explain your answer <ul style="list-style-type: none"> ○ A. It is better ○ B. It is the same ○ C. It is worse • What features do you like best? (please explain) • How would you rate the value of the construction Technical Assistance? <ul style="list-style-type: none"> ○ A. It is good ○ B. It is medium ○ C. It is bad • When do you use your [product/service]? <ul style="list-style-type: none"> ○ A. Everyday ○ B. 3-4 times a week ○ C. 1-2 times a week

		<ul style="list-style-type: none"> ○ D. Less than once a week E. It's not working • Have you ever recommended (product/service) to your friends? <ul style="list-style-type: none"> ○ A. Yes, I have told many friends (What have you told them?) ○ B. Yes, I have told some friends (What have you told them?) ○ C. No, I have not (Why not?) • How can we improve (product/service)? • Is there anything else you'd like to share with us?
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With regards to the **Partner Financial Institution (PFI)**, the Researcher shall develop an interview with the management and key staff of the PFI to gather data and insights for the assessment. A possible structure could be:

- **Relevance/importance of SCBF intervention for PFI**
 - What if, there was no SCBF?
 - Overall importance of respective product/service within overall offering (e.g. volume, profitability, client needs, others)
 - Was Housing Microfinance part of strategy/business plan?
 - Is there support at the boea5rd level for Housing Microfinance?
 - Has the initial view/perception regarding importance changed after the intervention?
 - Quantitative numbers like number of clients/transactions/volume, etc.
- **Effectiveness of the intervention**
 - What worked and what didn't work
 - Challenges to roll out intervention and what were the solutions to overcome these
 - Have the objectives being achieved? (plan vs. results)
 - Accurateness of market research
 - Satisfaction of management and staff re. collaboration with service provider (e.g. expectations, communication, responsiveness, resources committed and delivered, sensitivity, business-orientation, etc.)
 - Has the PFI a higher portfolio allocation to Housing Microfinance as a result of the SCBF project?
- **Efficiency of the intervention**
 - Are the objectives being achieved in an economically efficient way?
 - How big is the resource utilisation ratio of the PFI compared to the achieved results?
 - Was the TA adequate?
- **Impact of the intervention**
 - Does the intervention address a key client need and contributes to reaching development objectives?
- **Sustainability of the intervention**
 - How is the sustainability of the intervention?
 - How capable is staff now to manage this without Habitat/SCBF?
 - How is the performance of the new product/service?
 - What about the scalability of the intervention? How much scale can be achieved? What is required and what is the time plan?

Key Activities

The main activities, time sequence, and the breakdown of the estimated consultancy days are defined below. This timeline is binding to the extent that information and data required like MIS data are provided by the Partner Financial Institutions according to the original plan.

DATE	ACTIVITIES	LEAD
13.11.2017	Project kick-off <ul style="list-style-type: none"> Briefing of the Researcher by SCBF (Patrick Elmer) Provision of required documents & data Introduction Researcher and PFI Sharing of key data PFI and analysis 	SCBF
November	Evaluation Design CAMBODIA <ul style="list-style-type: none"> Literature Review Articulate project-specific Result Chain Define/Refine key outreach and outcome indicators Define target population and control group Sampling Design 	Researcher
November - December	Elaboration of fieldwork material CAMBODIA <ul style="list-style-type: none"> Drafting HH survey Drafting semi-structured interviews 	Researcher
End December	Inception Report CAMBODIA <ul style="list-style-type: none"> SCBF to review 	Researcher / SCBF
January-March	Data collection CAMBODIA <ul style="list-style-type: none"> Collect MIS data PFIs Recruit local team Pilot HH survey Pilot staff interview Ev. adjust survey based on pilot Conduct HH survey Conduct Staff interview 	Researcher
January-March	Evaluation Design EL SALVADOR <ul style="list-style-type: none"> Literature Review Result Chain Define target population and control group Definition of outreach Sampling Design 	Researcher
End February	Inception Report EL SALVADOR <ul style="list-style-type: none"> SCBF to review 	Researcher / SCBF
March- April	Data collection EL SALVADOR <ul style="list-style-type: none"> Recruit local team Pilot HH survey Pilot staff interview E. adjust survey based on pilot Conduct HH survey Conduct Staff interview 	Researcher
April – June	Data analysis CAMBODIA and EL SALVADOR <ul style="list-style-type: none"> Data processing and quality checks Quantitative data analysis Qualitative data analysis Elaboration Report draft Validation Report draft and corrections Final draft presentation 	Researcher
17.06.2018	Submission of draft outcome study	Researcher
24.06.2018	SCBF to review draft	SCBF
01.07.2018	Submission of final outcome study	Researcher

Deliverables

The selected Researcher agrees to deliver the following:

Inception Report

Within 8 weeks after the start of the project the Researcher will submit an Inception Report of max. 15 pages outlining the following:

- Brief summary (half page) of Housing Microfinance best practices based on CGAP papers
- Articulated Theory of Change
- Key outreach and outcome indicators
- Team composition for field work
- Presentation of the information and data collection process and scope incl. estimated sample size, composition and segments, locations, means of reaching out to them
- Proposed HH survey and staff interview (not included in the 15 pages)

Raw data database

- The use of technology (i.e. tablets) for data capture is preferable. In addition, all raw data need to be stored in a secured way and remain accessible for future evaluations.

Draft Report

A draft Result Study shall be submitted until 17.06.2018 containing findings, conclusions and recommendations already in the format of the Final Report to allow SCBF to review and comment on the study

Final Report

The final Result Study report of max. 15 pages (excluding annexes) shall be submitted until 01.07.2018 and follow this proposed structure:

- i. TABLE OF CONTENT (1 page max.)
- ii. BACKGROUND (0.5 page max.)
- iii. RESEARCH METHODOLOGY (1 pages max.)
- iv. FINDINGS AND CONCLUSIONS
 - a. HOUSEHOLD LEVEL (3-4 pages max.)
 - b. PFI (2-3 pages max.)
 - c. SECTOR LEVEL (1-2 pages max.)
- v. RECOMMENDATIONS (to the industry and specifically to SCBF, 1-2 pages max.)
- vi. ANNEX (incl. more technical details of the research methodology and Housing Microfinance best practices)

In addition, the Researcher will draft a Synthesis Report (4 pages, sort of an Executive Summary). Both Reports shall be drafted in English, written in Arial 11, single line. As the target audience is not academic but rather generalists with no experience in Housing Microfinance it should be easily readable and include tables and charts.