

# Costs and Benefits of Credit with Education

# The Case of PADME in Bénin

## By Myka Reinsch and Frédéric Ruaz with Teddy Ekoué Kouvahey | June 2010

This paper contributes to a body of work exploring the hypothesis that microfinance institutions (MFIs) can feasibly offer health-related services that "pay for themselves" via a combination of financial revenues and nonfinancial benefits that indirectly improve the MFIs' financial positions.

We present the revenues and expenses realized by PADME in offering *Credit with Education* with a focus on health in three branches located in the Plateau region of Bénin between 2007 and 2009. We conclude the following:

- PADME's Credit with Education program has incurred a net financial cost to the institution in all three
  years of the pilot and is poised to continue costing the MFI upwards of US\$70,000 annually in the coming
  years.
- If the MFI were to increase its effective interest rate on *Credit with Education* loans from 19 to 27 percent and to achieve certain other efficiencies, such as higher average loan sizes, faster growth in the number of
  - Credit with Education clients (which would entail a rapid increase in the number of field agents) and quicker loan disbursements, PADME's Credit with Education could achieve a break-even point and begin earning net income in 2011, the fourth full year of operation.

"The education has opened our eyes and helped us see the gravity of illnesses."

-PADME Credit with Education client

In an effort to draw conclusions about potential nonfinancial benefits of the program, we compare PADME's *Credit with Education* loans to the MFI's regular group loans, and examine average loan sizes across a randomized sample of groups that received *Credit with Education* financial methodology with and without the education component. Although anecdotal evidence suggests that *Credit with Education* clients perform better than regular group-loan clients and there is some concrete data to suggest that clients who receive education take out larger loans on average, these findings are inconclusive and bear further research and inquiry.

# Introduction

# Purpose

This paper documents the costs and benefits associated with PADME's delivery of health-related services developed as part of the Microfinance and Health Protection (MAHP) initiative in partnership with Freedom from Hunger from 2006 through 2009. The MAHP initiative set out to identify and test health-related services that could be practically and sustainably offered by MFIs. Configuration and operation of the services—in this case primarily *Credit with Education* focused on health—were honed by PADME and Freedom from Hunger over the course of the 4-year initiative, and research was conducted to determine the impacts of PADME's *Credit with Education* on both the clients (in terms of health and financial well-being) and on the MFI itself (in terms of the expenses, revenues and other nonfinancial benefits to CARD). This paper provides detailed information on one MFI's financial experience with offering *Credit with Education* and touches on some indirect benefits of the product that may ultimately positively impact the MFI's financial performance.

# MFI Background

Projet d'Appui au Développement des Microentreprises, known as PADME, is among the most prominent MFIs in the crowded and competitive Béninois microfinance market. In 2008, PADME boasted the largest number of microfinance clients in the country and a loan portfolio almost equivalent to that of its closest rival, FECECAM. PADME's gross loan portfolio is primarily comprised of individual loans, and the MFI is not authorized to take savings deposits. Having experienced unsuccessful results with group loans in rural areas (high PAR and write-offs), in 2006 PADME sought to implement *Credit with Education*, with the goal of combining a more systematic group loan and meeting methodology (to reinforce discipline and solidarity as well as improve repayment) with value-added education (to enable greater outreach to the poor, enhance PADME's image and contribute to the social mission). Based on market research and management conviction, PADME opted to focus its education almost exclusively on health (especially malaria, HIV/AIDS and childhood illness). And, recognizing that information and training on these diseases would not necessarily be enough to engender change, PADME also decided to test out the sale of complementary health products, such as insecticide-treated mosquito nets and condoms.

FIGURE I: PADME INSTITUTIONAL DATA AS OF DECEMBER 2009\*

MFI-wide	
Year MFI established	1993
Number of active borrowers	48,962 (64% women)
Outstanding loan portfolio (US\$)	35,465,271
Portfolio-at-risk (PAR-30)	4%
Operational self-sufficiency	130%
Health Protection Products	
Year started Credit with Education	2007
Number of Credit with Education clients	11,290

Credit with Education outstanding Ioan portfolio (\$)	314,255
Number of insecticide-treated mosquito nets sold	1,200

<sup>\*</sup>Data as of December 31, 2009 as provided by PADME

PADME hoped that *Credit with Education* would help the MFI to extend its microfinance services to more people in poor, rural areas, while also enhancing clients' ability to flourish, repay and remain a good credit risk. Through these health protection services, PADME sought to better accomplish its mission of providing as many microentrepreneurs as possible with access to credit, while enhancing its own competitive position and protecting its financial sustainability as an MFI.

At the time of this writing in mid-2010, PADME was still making decisions about the future of the *Credit with Education* product. On the one hand, regional and branch staff were very enthusiastic about the social benefits and portfolio quality of *Credit with Education*, and staff was actively planning not only to continue expanding in the pilot region but also to extend the product in at least one other region over the coming year. On the other hand, PADME leadership continued justifiably to question the cost-effectiveness of the product and was still deliberating about next steps.

# PADME's Health Protection Services

### In a Nutshell:

PADME offers *Credit with Education*—village banking-style solidarity loans along with 30-minute nonformal education sessions delivered by the same field agent at repayment meetings—with a focus on health (malaria, HIV, childhood illnesses). PADME coupled the malaria education with distribution of insecticide-treated mosquito nets for a donor-subsidized price, but since that component was less widespread and consistent, the current paper focuses on the costs and benefits of *Credit with Education*.

### PADME's Role

- PADME hires, trains and supervises *Credit with Education* field agents, who travel regularly (via motorcycle) to rural communities to cultivate and convene credit groups and to guide them in setting aside savings, managing group solidarity loans provided by PADME, and learning via a curriculum of interactive sessions about practical ways to improve health.
- PADME incorporates *Credit with Education*, using donor funds, and then disseminate this training to field agents and their supervisor on an ongoing basis (covered by PADME's own operating funds).

### **Value Proposition**

- In successful *Credit with Education* models, the interest income earned on the group loans pays for the decentralized financial service as well as the added cost of nonformal education.
- By extending a highly visible and high-value service that addresses the needs of people in poor, rural communities, the MFI can raise awareness about its other products in new markets, contribute to its social mission while enhancing its local reputation, and also introduce and habituate uninitiated people to formal financial services—thereby both attracting and cultivating new clients. In a highly competitive microfinance environment, such as that in Bénin, conquering and creating loyalty in un-served markets is extremely valuable.

### **Roll-out Timing and Locations**

PADME launched *Credit with Education* in October 2007 in three branches in the Plateau region: Pobè, Ketou and Ifangni (ranging from 50 to 125 kilometers from the government capital city of Porto Novo). Expansion took place within these branches through 2009.

# Methodology

During the pilot period, PADME encountered a number of challenges that had an undeniable impact on the implementation of both the *Credit with Education* product and the research. In 2008, just a few months after the launch of *Credit with Education*, the Béninois government seized control of the private organization and replaced its leadership. An extensive staff work-strike ensued, leading to about three months of inactivity in the field and some confusion on the part of clients. With the new leadership in place, the MFI then continued to pursue transformation to a regulated bank—with all the complications and management attention that this entails. At the time of this writing, this process was ongoing. Thus, the environment within PADME was not entirely conducive to the launching, dynamic management and detailed research of a major new product line.

A combination of activity-based and allocation methods were used for the costing presented. We focus primarily on 2008 data because they reflect actual financials. Where direct, tangible costs were incurred, we assigned costs using PADME's audited financial records from 2008. Data presented for 2007 and 2009 are based on a combination of actual data (for example: portfolio size) and extrapolated data (for example, revenues, which were calculated according to actual portfolio size and the portfolio yield reported in 2008). Although activity-based timesheets were collected for some staff, unfortunately we were not able to obtain enough reliable data to confidently assign indirect costs, so we resorted to portfolio- and transaction-based

allocations of these. We emphasized the cost of operating and growing the programs, rather than the upfront investment required to develop and launch them. Finally, we were unable to obtain detailed data on PADME's products other than *Credit with Education*, which restricted our ability to provide a comparison of the costs and benefits of *Credit with Education* as compared to PADME's existing group loans and other products; this is an unfortunate limitation of this study.

"The last time we received mosquito nets from the state was five years ago. It is as though the government has forgotten us. Fortunately, PADME sold mosquito nets for 1000F to us; we are glad to have received the mosquito nets of the PADME; that helps us greatly."

-PADME Credit with Education client

A true cost-benefit analysis goes beyond the crunching of financial data and profit to examine indirect and nonfinancial costs and benefits that can be quantitatively estimated and rolled into the analysis of financial gain or loss. We adopted the vantage point of the MFI itself and looked in particular for MAHP program-related impacts that might not be captured in the financials but that could ultimately enhance PADME's business bottom line. Our findings are presented under Additional Benefits and bear further research and exploration.

<sup>&</sup>lt;sup>1</sup> Credit with Education is briefly described above, under "PADME's Health Protection Services." For further details about the methodology, please see Credit with Education documentation at www.ffhtechnical.org or the Microfinance Gateway.

# ANALYSIS: PADME's Credit with Education

### **Additional Product Description**

PADME launched a traditional *Credit with Education* program, hiring and training (with active technical assistance from Freedom from Hunger) a cadre of new staff comprised of *Credit with Education* field agents and a supervisor.<sup>1</sup> The MFI also opted to participate in a randomized control trial examining the comparative impacts of education and mixed gender or women-only groups on the health knowledge and behavior change of clients and their communities. The results of this client-level impact research are presented in a separate report, although we refer to basic data on these randomly selected comparison groups, under Additional Benefits.

As mentioned above, we focus on the costs and benefits of *Credit with Education*, although some distribution of insecticide-treated mosquito nets at a subsidized price (through separate donor funding) of about \$2 and condoms was also incorporated into PADME's health protection package. This product distribution was carried out by the same field agents who delivered *Credit with Education*—they simply carried a small supply of health products with them to weekly *Credit with Education* meetings in the villages and sold them on the spot. Thus, the marginal cost of this component (essentially any management time to obtain the nets, keep track of inventory and distribution to field agents, and process payments) was negligible.

### **The Bottom Line**

The income statement in Figure 2 shows PADME's experience with offering *Credit with Education* from 2007 through 2009, and our projections for 2010 through 2012. Freedom from Hunger typically expects MFIs' *Credit with Education* programs to achieve "break-even" in the third or fourth year after launch. PADME's *Credit with Education* operation was not yet profitable at the end of 2009, after two full years of operation, and our projections indicate that given current trends and plans, the MFI's program will not become profitable in the foreseeable future.

In 2008 (the only year for which we have complete financial data), PADME spent \$107,000 in direct expenses to offer *Credit with Education* and more than \$128,000 including allocated regional and head office overhead. The product brought in about \$38,000 in revenues, which meant a net marginal cost to PADME of about \$70,000 to provide *Credit with Education* in 2008.<sup>2</sup> According to partial data for 2009, we estimate that PADME's *Credit with Education* operation realized a net marginal loss of almost \$84,000 (direct costs only) in that year and will again lose about \$68,000 in 2010. As far out as 2012, assuming current trends, product configuration and management approach, we estimate a net marginal cost of over \$73,000 per year and an overall net loss for the year (including allocated overhead) of \$103,000. Note that these results and projections do not take into account PADME's initial investment, capital depreciation or any further capital investments such as motorcycles for additional field agents.

There are several reasons for this lack of sustainability. Under Revenues and Expenses, below, we present the details behind the actual and projected performance of PADME's *Credit with Education* product. And in the Alternate Bottom Line section, we present the product's theoretical break-even points if several changes were made in the future.

Note that as a participant in Freedom from Hunger's Microfinance and Health Protection initiative, PADME received subsidies between 2006 and 2009 to cover market research, start-up costs and research associated with *Credit with Education*. Those subsidies are not reported here, since our focus is on operational results and sustainability.

FIGURE 2: INCOME STATEMENT FOR CREDIT WITH EDUCATION, 2007–2012\*

		Actuals			Projections	
Revenues	2007	2008	2009	2010	2011	2012
Interest		30,351				
Fees		8,061				
Penalties		53				
Total Revenues	5,814	38,466	59,695	83,975	135,373	199,325
Expenses	2007	2008	2009	2010	2011	2012
Human resources		55,152	81,277	82,553	138,298	154,894
Financial costs	7,051	16,462	23,223	32,668	52,664	77,543
Transportation and office supplies		7,689	11,204	15,158	16,476	18,453
Training and research		12,401	12,766	6,383	6,383	6,383
Other		15,335	14,894	14,894	14,894	14,894
Subtotal: Direct Expenses	38,349	107,039	143,363	151,656	228,714	272,166
Branch and regional office allocations	4,309	12,927	14,096	15,371	16,760	18,276
Head office allocation	2,878	8,635	9,416	10,268	11,196	12,209
Subtotal: Direct and Indirect Expenses	45,537	128,601	166,875	177,295	256,671	302,651
Net Income (Loss)—Direct Expenses Only	(32,536)	(68,573)	(83,668)	(67,682)	(93,341)	(72,841)
Net Income (Loss)—Direct and Indirect Expenses	(39,723)	(90,135)	(107,180)	(93,320)	(121,298)	(103,326)
Key Data and Assumptions	2007	2008	2009	2010	2011	2012
Number of Credit with Education borrowers	2,023	8,272	10,787	12,564	13,656	15,295
Number of Credit with Education members	2,023	9,088	11,290	13,225	14,375	16,100
Percentage of <i>Credit with Education</i> members who are active borrowers	100%	91%	96%	95%	95%	95%
Outstanding Credit with Education portfolio	94,020	305,023	314,255	556,904	847,462	1,220,346
Number of 4-month cycles in year	1.0	2.0	2.5	2.5	2.5	2.5
Average loan size	46	37	29	44	62	80
Return on portfolio	19%	19%	19%	19%	19%	19%

		Actuals			Projections	
Key Data and Assumptions (cont.)	2007	2008	2009	2010	2011	2012
Operational self-sufficiency—direct only	15%	36%	42%	55%	59%	73%
Operational self-sufficiency—with allocation	13%	30%	36%	47%	53%	66%
Portfolio at risk (PAR-30)	0%	9%*	3%			
Number of CAE groups	87	349	452	575	625	700
Members per group	23	26	25	23	23	23
Number of field agents	9	17	17**	23	25	28
Average groups per field agent	10	21	27	25	25	25
Cost of funds	7.5%	8.3%	7.5%	7.5%	7.5%	7.5%

<sup>\*</sup> All monetary figures are in USD

### Revenues

In 2008, PADME reported \$38,466 in revenues from interest, fees and penalties associated with *Credit with Education* loans. This translates to an annual portfolio yield of about 19 percent. We applied this same effective yield to the 2007 and 2009 reported portfolios, as well as to the projected portfolios for 2010 through 2012.

PADME's 2 percent monthly interest rate (charged on the declining balance) for *Credit with Education* loans, and its effective annual 19 percent rate, are extremely low compared to other MFIs providing *Credit with Education*, the value that this decentralized financial service with value-added education represents to clients, and the cost of operating the product. For comparison, PADME's main competitor in Bénin (FECECAM) charges a flat 2 percent per month, plus fees and penalties for *Credit with Education*. Although we lack the data required for a precise calculation of FECECAM's effective annual interest rate for *Credit with Education*, from this information we can conclude that it is at least 27 percent.

Other drivers of revenue are: the loan terms (or number of months in a loan "cycle"), the number of loan "cycles" per year, the number of groups managed by each field agent, the number of clients per group, and average loan sizes. We made the following observations and assumptions of these at PADME:

- Most MFIs providing Credit with Education begin with loan terms or "cycles" of four months and allow clients to gradually progress to cycles of six or more months. PADME intends for clients to progress to 6-month cycles after completing four successful 4-month cycles. Longer loan terms result in higher earnings for the MFI. Since it is complex to predict the proportion of clients who will progress to longer cycles, for the purposes of these projections we have conservatively assumed that all clients have remained and will remain in 4-month cycles indefinitely. For this reason, our revenue projections are somewhat under-stated.
- In theory and usual practice, when clients make their final payment on a *Credit with Education* loan, they can expect to receive a new loan within one to two weeks. At PADME, however, there has been a longer

<sup>\*\*</sup> Data for December 2008 not available; this is as of June 2008, toward the end of the staff work-strike.

<sup>\*\*\*</sup> This is as of November 2009; as explained elsewhere, in December 2009 nine field agents were temporarily laid off.

lag time between loan cycles, resulting in less credit outstanding over the course of the year. In Figure 1, we noted the number of cycles per year that have been achieved or assumed. For projections, we have assumed that PADME continues to achieve only 2.5 four-month cycles per year.

- A rule of thumb based on 20 years of *Credit with Education* experience among other MFIs is that one field agent can realistically manage an average of 25 groups at a time, and that 25 members on average per group is toward the high end. PADME had an average of 25 members per *Credit with Education* group at the end of 2009 and an average of 27 groups per field agent.<sup>3</sup> In the 2010–2012 projections, we assume a realistic average of 23 members per group and 25 groups per field agent.
- Average loan sizes have declined since the launch of *Credit with Education*, and they have not kept pace with initial projections. Although PADME's *Credit with Education* loans started out at \$46 on average in 2007, they had declined to \$29 on average at the end of 2009. This is partly a factor of when in the cycle the outstanding portfolio was reported. But it does run contrary to plans to rapidly increase average loans to at least \$60. An important reason for this discrepancy has been demand—PADME found that people in the target villages were poorer and tended to request smaller loans than projected. In the projections shown in Figure 2, we have nevertheless assumed that as clients progress, they will in fact request larger loans—leading to a fairly aggressive increase in average loan sizes, to \$80 in 2012.

### Expenses

### **Initial Investment**

We estimate that on top of those expenses presented in Figure 2, PADME incurred start-up expenses—which were ultimately paid for with third-party grant funds—in the form of capital investment (primarily motorcycles for field agents, amounting to about \$50,000) and technical assistance (significant hands-on technical assistance from Freedom from Hunger, including time, travel, training and research assistance, amounting to about \$200,000). Over the course of the 4-year period, these start-up costs came to a total of about \$250,000—before the cost of PADME's own staff time to participate in market research, product development, trainings, periodic program evaluations and product adjustments.

As PADME brings on additional field agents to handle the growth in *Credit with Education* clients, the MFI will need to invest in a corresponding number of motorcycles, conservatively estimated at about \$3,000 each. Neither this capital investment nor depreciation of the existing complement has been included in the projections presented here. In terms of future technical assistance investment, PADME was relatively self-sufficient at offering *Credit with Education* as of the end of 2009, and we assume that any follow-up assistance will be covered by third-party donor funds; therefore, any additional technical assistance expenses are similarly not included in the projections.

### **Direct Expenses**

In 2008, PADME's direct, marginal costs to offer *Credit with Education* came to \$107,039. This was the cost of the additional staff, specialized training, transportation, office equipment and other elements necessary to operate the service.

<sup>&</sup>lt;sup>3</sup> Note that at the end of 2009, PADME in fact laid off nine field agents so that only eight remained as of December 31, 2009. PADME took this step because half of the field agents would have become eligible for permanent contracts, and PADME wanted to review the *Credit with Education* product and impact research before making a final decision on the product's future. At the time of this writing, PADME had hired interns to replace some of the field agents and were planning to re-institute all of the laid-off field agents to keep expanding the product. For the sake of simplicity, and since PADME did have 17 field agents through November 2009 (and thus almost all the costs), we have assumed that the full complement of 17 remained through 2009 and into 2010.

### **Human Resources**

The largest direct expense was of course for *Credit with Education* staff—the field agents who travel to villages to convene groups of clients for savings and loan transactions as well as education sessions, and the supervisor who supports and monitors them. PADME pays its field agents about \$5,500 per year, although there is an introductory period of six months during which new field agents are considered "interns" and are paid about one-quarter of that. After two years of work with PADME, field agents are entitled to permanent work contracts and other benefits.

Although PADME's field agent salaries may be considered high by the standards of some MFIs and *Credit with Education* providers, in 2007 and in part of 2008 PADME benefitted from the intern policy and paid unrealistically low costs for *Credit with Education* staff. In 2009, human resource costs remained slightly lower than they should have because MFI management laid off half the field agents just before they were eligible for permanent contracts. Had the field agents been paid full salary, the human resource costs would have been \$94,000 in 2009. In 2010, PADME planned to reinstate the laid-off field agents and add new interns to continue and extend the product.

### Financial Costs

PADME's average cost of funds is 7.5 percent annually. Although the cost of funds appears to have been slightly higher (according to reported figures) in 2008, PADME expects to pay an average of 7.5 percent in the future.

### **Training and Research**

Training and research costs were high in 2008 and 2009 because of the initial investment required to train staff throughout the organization on a new product line, as well as due to the extraordinary research efforts associated with MAHP. We conservatively assume that they will decline by half beginning in 2010.

### **Indirect (Allocated) Expenses**

A detailed costing exercise conducted by Freedom from Hunger and PADME staff in 2009 led to the identification of cost centers and allocation bases for regional and head office overhead. Figure 3 presents a summary of the retained allocation bases used to attribute indirect costs to the *Credit with Education* product.

FIGURE 3: INDIRECT COST ALLOCATIONS

	Allocation Basis	Allocation Percentage	Total Cost	Cost Allocated to Credit with Education
Credit with Education Branch Offices				
Personnel	Number of transactions	16.98%	66,524	11,299
Transport, training, etc.	Number of loans	1.25%	9,965	125
Office rent, utilities, etc.	Number of loans	1.25%	5,190	65
Total Branch Office Allocation				11,488
Regional Office (Porto Novo)				
Personnel	Number of loans	1.25%	68,796	860
Transport, training, etc.	Number of loans	1.25%	46,308	579
Total Regional Office Allocation				1,439
Head office				
Personnel	Number of loans	1.25%	192,958	2,412
Transport, training, etc.	Number of loans	1.25%	497,879	6,223
Total Head Office Allocation				8,635
Total Indirect Costs Allocated to <i>Credit</i> with Education in 2008				21,562

<sup>\*</sup> All monetary figures are in USD

Several different allocation bases were used to assign indirect costs:

- At the branch level—the three branches from which *Credit with Education* operated between 2007 and 2009—we allocated personnel costs (other than the *Credit with Education* field agents: supervisors, branch managers, cashiers and other credit agents) at a rate of 16.98 percent, which corresponds to the proportion of transactions attributable to *Credit with Education* in those branches. We rationalized that the time that other staff spent on this product would be primarily driven by the number of transactions involved.
- In the three branches in which *Credit with Education* was operating, we allocated office rent, utilities, transportation, training, etc., according to the proportionate number of loans (1.25 percent), since the *Credit with Education* staff do consume a small portion of these in order to carry out their duties (but note that significant direct costs associated with transportation and training have also been included in the section above).
- At the regional office level (Porto Novo), we allocated personnel costs (to account for general management and oversight), training and transport at the same rate of 1.25 percent, corresponding to the proportion of loans in the region that were for *Credit with Education*, again with the rationale that the work is driven primarily by the number of loans. We did not allocate rent, utilities or other such overhead costs for the region to *Credit with Education*, since the *Credit with Education* service does not directly use them and because the addition or discontinuation of this service does not impact those costs.

• At the head office level (Cotonou), we allocated 1.25 percent of personnel, transport and training costs to *Credit with Education* again on the basis of number of loans. Again, we omitted the allocation of other overhead expenses at this level.

### Alternate Bottom Line

Figure 4 compares three scenarios with different break-even points. As stated above, at the current rate of spending and with a 19 percent effective annual interest rate, PADME's *Credit with Education* service will not break even—even when including only direct costs (Scenario 1).

If PADME were, however, to increase its effective interest rate to 27 percent<sup>4</sup> (either through an actual quoted increase in its monthly declining rate or via the addition of an "education fee," for example), and

assuming that indirect costs remain at the 2008 level but that direct costs increase to accommodate the number of field agents required to manage a large enough portfolio to break even, then PADME's Credit with Education product would achieve break-even when an outstanding portfolio of \$1.4 million is reached (Scenario 2) Compared to the current outstanding portfolio of \$314,255, this is a long way off. According to projections shown in Figure 1, a portfolio of \$1.4 million may be reached in Year 2013—in the product's sixth full year of operation. If indirect costs are not factored in the calculation, then Credit with Education would break even with a portfolio of \$669,307 (Scenario 3). According to current projections, this may occur in 2011, the product's fourth full year of operation.

"You know well that we are poor country people, with conditions in which life is expensive or it is already painful trying to have enough to eat. We have to invest our small incomes in health. This is even more punishment. We don't have a great way to get to the hospital, but if someone can give us ideas on how to prevent disease, we will apply these tips and save our children and ourselves."

-PADME client, when asked her opinion on the health education

If in addition to raising the interest rate, PADME succeeded in taking one or several other measures, the break-even point may occur sooner. Examples of such measures include the following:

- Increasing efficiency in order to achieve a full three loan cycles per year, rather than having a several-week gap between final loan repayment and the next loan.
- More rapidly increasing loan sizes to achieve an average of closer to \$100 by 2011.
- Reducing the cost of funds following commercialization and the ability to collect deposits.

<sup>&</sup>lt;sup>4</sup> This is the interest rate ceiling for MFIs as set by the Central Bank of West African States. This ceiling would exclude any fee charged for value-added services such as education, if quoted as such. Therefore in theory, PADME could both increase its interest rate and charge a separate, transparent fee in order to achieve an effective yield of even more than 27 percent—thereby leading to earlier and more durable sustainability.

FIGURE 4: ALTERNATE SCENARIOS\*

	Scenario I	Scenario 2	Scenario 3
	Direct + Indirect Expenses Effective Rate of 19%	Direct + Indirect Expenses Effective Rate of 27%	Direct Expenses Only Effective Rate of 27%
Number of field agents	17	17	17
Revenues	-	388,458	180,713
Expenses			
Field agent transportation	11,204	28,339	13,181
Field agent salary	81,277	205,582	95,620
Cost of funds	_	107,905	50,198
Training and Research	6,383	10,176	6,821
Miscellaneous	14,894	14,894	14,894
Direct expenses	113,757	366,896	180,713
Indirect expenses	21,562	21,562	
Total expenses	135,319	388,458	180,713
Break-even Point in Terms of Outstanding Loans	No break-even point	1,438,735	669,307

<sup>\*</sup>All revenues and expenses in USD

### **Additional Benefits**

Regional, branch and MAHP project staff at PADME have asserted that the *Credit with Education* portfolio does in fact perform better than the regular group-credit portfolio—thereby informally validating PADME's initial goals and expectations for the product—and that the *Credit with Education* groups that received education (compared to the groups receiving the same methodology except for the education component—as part of the randomized control trial) perform better and are more profitable than their non-education counterparts.

Examination of available data did not show a marked difference between the PAR of the *Credit with Education* portfolio and that of the regular group-credit portfolio (see Figure 5).

FIGURE 5: COMPARISON OF PORTFOLIO-AT-RISK RATES BETWEEN CREDIT WITH EDUCATION
AND REGULAR GROUP CREDIT IN THE PLATEAU REGION, 2007-2009

	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09
Credit with Education Loans PAR-30	0.0%	9.0%	0.0%	2.0%	2.9%
Regular Group Loans PAR-30	2.4%	8.5%	2.8%	2.6%	1.2%

When comparing *Credit with Education* groups that received education with *Credit with Education* groups that did not, we did observe a significant difference in average loan sizes. PADME staff was surprised to see this difference and could not immediately explain it, other than to suggest that it confirms their belief that the education groups are more disciplined, more active and thus more profitable. (Note that we could

not, in this basic comparison, control for self-selection, and that it could be that people who opt to join the groups offering education are fundamentally different from people who opted into and stayed in *Credit with Education* groups without the education component.) If in fact this loan-size difference was due to the dynamic environment created by the education at meetings, people's improved health and thus improved ability to borrow and run businesses, or some other factor related to the education, then larger loan sizes for people of similar backgrounds and means would be an interesting and potentially compelling argument for including nonformal education in village banking programs. Further research and inquiry is needed to better understand this difference. Nevertheless, we present the data for reflection in Figure 6.

FIGURE 6: COMPARISON OF AVERAGE LOAN SIZES IN CREDITWITH EDUCATION GROUPS WITH AND WITHOUT EDUCATION, 2007-2009

	Dec-07	-07	90-un(	.08	Dec	Dec-08	60-unf	60-	Dec-09	-09
	With	<sub>S</sub>	With	o Z	With	°Z	With	o N	With	°Z
	Education	Education	Education	Education	Education	Education	Education	Education	Education	Education
Number of clients	1,135	888	1,891	2,110	4,471	4,617	5,270	5,867	5,385	5,905
Number of groups	48	39	82	84	176	173	200	208	200	201
Average group size	24	23	23	25	25	27	26	28	27	29
Outstanding portfolio (\$)	31,767	20,889	52,923	45,862	178,402	126,621	215,929	139,327	301,602	135,801
PAR-30	%0	%0	ΑN	ΑN	%0	%0	2.47%	1.47%	1.67%	4.17%
Average loan size (\$)	28	24	28	22	40	27	14	24	56	23
Difference in Ioan size (\$)	4		9		12		17		33	
Percentage difference in Ioan size	%61		79%		45%		73%		144%	

\*All revenues and expenses in USD

# CONCLUSION

The *Credit with Education* program developed by PADME and Freedom from Hunger as part of the MAHP initiative has grown to fairly substantial scale in a short time and has—as described in greater detail in impact research reports—achieved notable impacts on the health knowledge, attitudes and behaviors of participating clients. The product has not, however, managed to pay for itself and does not appear poised to do so if current practices and trends continue. PADME must revisit the interest rate charged for its *Credit with Education* loans and identify efficiencies that will both increase revenues (e.g., faster loan disbursement) and reduce costs (e.g., using savings deposits following commercialization to reduce the cost of funds).

While we are disappointed to report that this *Credit with Education* product—although successfully and sustainably offered at dozens of other MFIs—has not achieved break-even at PADME, we believe that this is important information to share with the broader microfinance sector. *Credit with Education* has been criticized as "expensive" to offer, and to some extent that is true. However, as our alternate scenarios suggest, and assuming some upfront donor investment, it is feasible to provide the product on a financially sustainable basis—even within the constraints of West Africa's unusually low interest-rate ceiling. It is important that MFIs not only develop clear projections at the outset, but also revisit and be ready to readjust them after a 1-year pilot period. In PADME's case, the lower-than-expected loan sizes and fewer cycles per year than anticipated certainly played a role in the disappointing financial performance of the product.

Freedom from Hunger is committed to working with PADME and other MFIs to find sustainable ways of extending value-added microfinance services to very poor people. And we are committed to transparently sharing the results of MFIs' experiences and research of other development innovations. Further research is needed to understand and document in greater detail the "additional benefits" of *Credit with Education* with regard to the financial performance of MFIs.

For more information on the costs and benefits of value-added microfinance services that include and go beyond education, please see the other papers in this MAHP cost-benefit and impact research series published by Freedom from Hunger in 2010 at www.freedomfromhunger.org or the Microfinance Gateway.