

Housing Microfinance; does it make any sense?

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1. Introduction

Housing Microfinance [HMF] has a very strange history for a financial product. This product was first presented to the market more than 55 years¹ ago. Through all these years, strong efforts have been made to turn HMF into a widespread and a well-developed lending instrument. Numerous presentations have been presented and publications (one of them is in front of you) published. Donors, NGOs, Governments and International Developmental Organizations [IDOs] have financed initiation of this product in a large number of financial institutions [FIs] all over the world. It is very strange that in spite of all this, HMF is still an innovation that needs to be actively promoted.

One of the recent examples of the efforts to promote this “middle-aged” innovation is the Microbuild fund that since 2012 has been spending \$50 million “to convince ... micro-finance institutions that they should ... offer housing loans”². In terms of “convincing” the fund provides FIs with liquidity at concessional terms and free technical assistance.

The question is what is wrong with the HMF lending product that after 55 years of its existence, financial institutions (FIs) still need to be “convinced” to use it? Why does the product still need free TA and cheap funding to be implemented?

Does it make any sense for donors, governments and IDOs to continue supporting HMF product development or will this support never bring long-term results because the product is not sustainable and FIs lose the interest in implementing it as soon as the support is discontinued?

This paper argues that the HMF product, if properly implemented, is the subject of strong

demand from borrowers willing to improve their housing conditions and is very efficient for financial institutions. The reason why most of the efforts to convince FIs in this have not been successful yet, is grounded in the set of omissions in the most widely used approach to the HMF product design. The paper presents an opinion about the nature of these omissions and suggests what should be done to make financial institutions interested in offering HMF loans.

2. What is HMF and why does an FI become interested in implementing it?

HMF is a lending product for low-income households who live in their own (often informal and inadequate) houses. These households suffer badly from leaking roofs, wet and muddy earth floors, cracked walls, terrible congestion in rooms where 3-4 generations are jammed together, etc. The necessity to improve their living conditions is one of their burning needs. Being unable to take a mortgage loan to buy or build a new house, they do their best to improve the existing ones. They mend roofs, repair walls, cover mud floors with concrete, add new rooms and conduct other improvements. Sometimes they incrementally build³ a new house in addition to, or instead of an old one. To simplify the further text, we will name all these types of activities “home improvements”.

These home improvements, though comparatively small in scale, have very high impact. A study of an effect that such a small home improvement as installation of a cement floor (average cost – \$150 per house) has on poor households was conducted in Mexico. It was proved that as a result of cementation of floors in their homes, children demonstrated 78% reduction in parasitic infestations, 81% reduction in anemia and a 36

to 96% improvement in cognitive development (ability to reason and understand) while their parents self-reported 69% increase in quality of life satisfaction⁴.

Needing money to carry out even such small home improvements, low-income people often look for an opportunity to borrow. HMF is a specialized lending product that brings to them this opportunity. It is a product under which loans are provided to low-income people for home improvements, home extensions or incremental housing construction⁵.

It is presumed, that FIs are interested in offering HMF loans because this attracts to them clients with home improvement needs. If it is so evident, why there is a need to convince FIs to start HMF lending? The need exists because FIs suspect that potential borrowers may not be attracted by a HMF product since they can fund their home improvement needs using other lending products as well. FIs understand that HMF will be demanded by clients only if this product serves home improvement needs better than other products. To verify if this is really the case, the suitability of a wide spectrum of products to serve home improvement needs is to be compared with the suitability of HMF.

Most of the authors writing about HMF, compare it with two types of lending products that can also be used to finance home improvements of low-income households. These are micro-entrepreneurial loans⁶ and micro-mortgage loans⁷. According to these authors, HMF is much more convenient for borrowers and hence can attract new clients to the lender that introduces a HMF product.

Specifically, it is considered, that HMF loans are better for borrowers financing home

¹ The first HMF product was launched in 1961 see at HOFINET <http://www.hofinet.org/themes/theme.aspx?id=56>

² See Habitat for Humanity website. http://www.habitat.org/lc/hw/inside_habitat/MicroBuild_Fund.aspx

³ Here this term means progressive building by low-income households who invest into new construction whenever the funding is available so that the new building is completed only after several years.

⁴ Matias D. Cattaneo et al. Housing, Health and Happiness <https://openknowledge.worldbank.org/bitstream/handle/10986/7295/wps421401update.pdf?sequence=1>

⁵ There is a big variety of lending products that can be named HMF. FIs often name them not HMF loans but “housing loans”, “residential loans”, “home improvement loans”, “home maintenance loans”, etc.

⁶ Strictly speaking, micro-entrepreneurial loans should not be used for home improvements, because their target use is micro-business, but since the money is fungible they very often are

⁷ See for example Merrill Sally. Microfinance for housing: Assisting the “Bottom Billion” and the “Missing Middle”. IDG working paper, 2009. Pages 2-3.

improvements than micro-entrepreneurial loans, because HMF loans tend to be (a) individual rather than group loans, (b) are bigger in size and (c) have comparatively a longer term than micro-entrepreneurial loans. These characteristics enable HMF to serve home improvement lending needs better than micro-entrepreneurial loans do, because home improvements tend to be costlier and more specific for each household than typical micro-entrepreneurial investments.

If compared with micro-mortgage loans, HMF loans are more convenient for low-income borrowers because these loans are: (a) not collateralized by mortgages, (b) use informal clients' assessment and (c) are comparatively small. For low-income clients, whose repayment capacity is not enough to qualify for a mortgage loan and whose houses are informal and can't be mortgaged, these are great advantages.

It seems to be proved that HMF loans are more attractive to meet the home improvement needs of low-income households than mortgage and micro-entrepreneurial loans, but these two are not the only types of loans available to low-income people to finance home improvements. Low-income people can take personal loans as well (also known as multi-purpose, general purpose, signature or consumer loans).

According to the most widely used definitions of personal loans, these are the loans where the funds are used at the borrower's discretion. Home improvements are often mentioned as the key target use of personal loans⁸. This is especially the case for personal loans of FIs dealing with low income borrowers. For example, analysis of the personal loan portfolio of Access Bank in Azerbaijan in 2011 showed that 43% of the portfolio was used for home improvement needs. Hence, personal loans are also an option for borrowers to finance home improvements and should also be compared with HMF loans.

The advantages of HMF loans vis-a-vis personal loans are not evident. These two types of loan seem to be very similar to each other. Like HMF loans, personal loans for low-income borrowers are in most cases individual (rather than group) loans, are not collateralized and use an informal client assessment. The term for both of these types of loans is limited only by the terms of lender's liabilities (in case of an entrepreneur loan it is limited by the production cycle). The size of a personal loan as well as of a HMF loan is limited by the client's repayment capacity

(for mortgage or micro-entrepreneurial loans the limit is the price of the property or the size of the investment in the micro business project)⁹.

The key difference between personal loans and HMF loans is that for the former, home improvement is one of their potential uses, while for the latter it is the only allowed use. From here it follows that these types of loans are competing. If both types of loans are available on the market, a borrower can use for a home improvement either a personal loan or an HMF loan. It is the borrower, who has an option to choose between these two competing types of loans. Of course the borrower would prefer a HMF loan to a personal loan only if he sees that for home improvement finance a HMF loan has some advantages against a personal loan (more convenient, has better terms, better conditions, etc.). A FI in its turn will be convinced to offer HMF loans only if the borrowers see the HMF advantages and demand for home improvements HMF loans rather than personal loans.

The question "can it be demonstrated to a borrower that a HMF loan has competitive advantages against a personal loan" is actually the question "can HMF be a successful product". If personal loans are available to potential borrowers and it is not clear for them that for home improvements it is better to use HMF loans, than there is no sense for the FI to introduce a HMF product. This will not attract new clients and hence will not give any benefits to the FI.

It can be summarized that it will be impossible to convince the FI to offer HMF loans unless the advantages of these loans in comparison to personal loans are evident to their borrowers.

Let us discuss what the competitive advantages of HMF loans are vis-a-vis personal loans that can make borrowers choose HMF loans.

3. Reduced interest rates as a competitive advantage of HMF lending

It is clear that HMF loans would be advantageous for borrowers if home improvements financed under HMF loans turned out to be less costly than home improvements financed under personal loans. There are several options to make this happen. The most obvious one is to make interest rates on HMF loans lower than on personal loans.

There is a view that a FI can make the interest rate for HMF loans lower than for personal loans because the credit risk for HMF loans is lower than that for personal loans. The lower the credit risk, the lower the probability of default and hence the lower the loss that a FI can encounter. If the loss is lower, the FI can add a smaller margin to the interest rate to compensate for the potential loss. Hence, for products with lower credit risk (such as HMF), a FI can make the interest rate lower than for products with higher risk (such as personal loans).

Why is the credit risk of HMF loans lower than that of personal loans? Because the HMF lender can better manage the key risk of home improvement lending – a risk of mismatch between the home improvement cost and the size of the loan.

The mismatch risk is the risk that the cost of the home improvement may turn out to be higher than the loan size. If this happens, the client needing to complete his/her home improvement will have no choice but to borrow more from other sources. The total debt will exceed borrower's repayment capacity and he/she will become unable to repay the loan.

For a HMF loan, this risk is lower than for a personal loan. A personal loan lender defines the maximum size of the loan mainly on the ground of borrower's repayment capacity¹⁰. Unlike a personal loan lender, a HMF lender requests each borrower to present a description of the home improvement and a cost estimate. This cost estimate (in addition to the borrower's repayment capacity) is the basis for defining the size of the HMF loan. If the credit officer sees, that the home improvement cost is higher than the repayment capacity of the borrower, he/she rejects the loan application. This reduces the credit risk on the HMF loans and provides a reason to reduce the interest rate.

It seems evident that HMF lenders have a reason to reduce the interest rate. However, in reality, the situation is not as simple as it seems to be. To what extent the risk is reduced, depends on the reliability of the information about the home improvement cost (the cost estimate) that the HMF lender obtains from the borrower. If the cost estimate is not reliable, there is no risk reduction, because the loan size can still turn out to be smaller than the home improvement costs.

The problem that HMF lenders encounter in practice, is that most low-income borrowers

⁸ See for example a definition of personal loans at <http://www.businessdictionary.com/definition/personal-loan.html>; or at <http://credit.about.com/od/avoidingdebt/a/basics-of-personal-loans.htm>

⁹ Size of the home improvement is also a limit for a HMF loan, but since the demand for home improvements of an average low-income household is normally much bigger than its repayment capacity, the latter is in fact the real limit.

¹⁰ This criterion is the key one though the credit history, public conduct, assets, etc. are also taken into account.

prepare cost estimates in the form of “my neighbor did the same home improvement and said that this loan amount would be enough”. To get a more reliable cost estimate, a staff member of a lender would have to spend a lot of time and effort. Actually, they would need to prepare a cost estimate for the borrower. Since lender’s staff typically do not have the expertise necessary to do it, costly services of professional engineers would be required.

If services of professional engineers are used to verify/prepare cost estimates, overhead expenses under HMF lending become much higher than under personal lending¹¹. It is not clear whether the FI’s benefit as a result of the reduced risk, offsets its losses caused by the increase in overhead expenses. Most of the FIs involved in HMF lending do not consider that the balance is in favor of risk reduction and that therefore the HMF interest rates decrease cannot be financially justified.

There are cases, however, when FIs provide HMF loans at reduced interest rate. They do it either because they have concessional (subsidized) funding earmarked for HMF lending or because they consider HMF a socially important product that is worth being subsidized by themselves though it reduces their profit.

4. Subsidizing of HMF interest rate

If the HMF interest rate is subsidized, HMF terms become better than the terms of non-subsidized personal loans and hence become more attractive to borrowers. There are many programs subsidizing HMF through the provision of FIs with liquidity earmarked for HMF at below market interest rates and/or through accompanying HMF loans with cash subsidies.

In some cases, subsidized liquidity is provided by donors or NGOs. For example, while I am writing these words, four FIs in Tajikistan offer HMF loans subsidized by KfW at 28% interest rate, while the average rate on personal loans offered by the same institutions is about 40%.

Very often liquidity at concessional rates is provided by states. One of the examples can be found in South Africa where liquidity for HMF is provided via the state-owned Rural Housing Loan Fund and National Housing Finance Corporation¹². Another example is Tanzania where a state owned liquidity facility – the

Tanzania Housing Microfinance Fund, makes liquidity available for HMF lending.

Very often liquidity support for HMF is combined with provision of subsidies. A good example is the ABC system (Ahorro– Savings, Bono–subsidy, Credito– Loan). The program was first implemented in Chile (that served as a model for other countries) and was later exported to Costa Rica and Ecuador¹³. Under the program, the borrower receives from a FI both a loan funded by a state-owned liquidity facility and a subsidy financed from the state budget.

A similar program has been launched by SHF (Sociedad Hipotecaria Federal) – a housing liquidity provider in Mexico – that starting from 2005 has become a liquidity window for HMF lenders and later started offering a subsidy that can be joined with a housing microfinance loan¹⁴.

An important group of HMF loans supported by cash subsidies and/or subsidized liquidity is represented by the Residential Energy Efficiency lending programs. These are HMF loans that can be used only for a specific set of home improvements – the ones that increase the energy efficiency of houses. An example is the KYRSEFF program in Kyrgyzstan¹⁵ that provides to each borrower funding at concessional rates and a subsidy equal to up to 35% of home improvement costs via four commercial banks. The support is mostly provided for such home improvements as installation of windows and heat insulation of walls.

There are three issues that negatively influence the efficiency of subsidizing HMF lending. One of them is the low sustainability of the created HMF programs, another is the market distortion that is caused by such subsidizing, and the other is the high risk of a misuse of funds.

The issue with sustainability is that under this scheme, HMF lending is more attractive to borrowers than personal lending only while donors, IDOs or states provide concessional funding and/or subsidies. FIs are easily convinced to offer HMF loans under subsidy programs because there is a great demand for subsidized HMF loans from borrowers. However, this demand disappears as soon as the subsidy program is withdrawn, and FIs start using the same funding sources for HMF lending as they use for personal loans. When this happens, the demand for HMF loans plummets, which causes FIs to discontinue the product.

Market distortion is caused by the sharp reduction in the demand for personal loans (often used for home improvements) for those FIs that are not supported under HMF (or Residential EE) programs. These unlucky FIs lose their position in the market and in some cases even become bankrupt. It takes a lot of time and effort to restore the personal lending market when the subsidy and low cost funding programs are over.

Another issue is that the higher the subsidy for HMF loans, the more borrowers are inclined to use at least part of HMF loans funds for their personal needs. Most of these needs are very different from housing. As a result, the subsidized HMF loans in fact often turn out to be subsidized personal loans.

To manage the risk of the misuse of funds allocated for HMF loans, the subsidy provider should, in addition to spending money on an interest rate or a cash subsidy, allocate funding for the control over the target use of this money. For example, SEWA bank arranged such control in 2002 when it became evident that the funds from some of its HMF loans (Paki Bhit) were not being used for home improvements. This happened because the interest rate on Paki Bhit was 14.5% while for other loans it was 17%. This encouraged borrowers to pretend that they were intended to finance a home improvement whenever they needed to borrow for any purpose. SEWA was compelled to carefully verify the actual use of all Paki Bhit loans and increase the interest rate in cases where misuse was identified¹⁶.

This type of control is extremely costly and requires special engineering knowledge. Because very often only a part of a HMF loan is misused, to identify this part, a controller should be able to assess the actual cost of the conducted improvement and compare it with the loan size. To do this the controller should know the state of the house before and after the improvement, and be able to assess the volume of materials and labor spent to transform the house from the original state to the current one. In fact, it may require at least two visits by the controller – a professional engineer – to a borrower (before the lending and after the works are done). Besides it is important to arrange at least random independent “control of the controller” inspections also conducted by professional engineers.

There are cases, where control over the target use of subsidized HMF loans is conducted

¹¹ This does not happen during the period when the services of engineers are covered by donors such as under the MicroBuild program, but these lucky days for HMF lenders can’t last forever.

¹² Mikhael Kihato. State of Housing Microfinance in Africa. Working paper CAHF in Africa. 2013. P 11.

¹³ C. Klaufus. The two ABCs of aided self-help housing in Ecuador. Habitat International 34. 2010. 351-358.

¹⁴ Bruce Ferguson, Peer Smets. Finance for incremental housing: current status and prospects for expansion. Habitat International, 2009 (1-11), p. 5.

¹⁵ <http://www.kyrseff.kg/en/home-main>

¹⁶ Cities Alliance. SEWA Bank’s housing microfinance program in India. P.3. www.citiesalliance.org

very formally. For example, many HMF (and REE) programs disburse money directly to construction materials' retailers, or require borrowers to provide retailers' receipts, considering that this guarantees the target use of funds. In practice, it does not, because borrowers often make an agreement with the retailers, and instead of the materials, receive cash from them (minus retailer's fees). In this case, the subsidy (including the rate difference between HMF loans and personal loans) is shared between the borrower and the retailer, while the loan proceeds are used for purposes different from housing. (Of course, faked receipts from the construction materials retailers are provided).

Another example of formal control, is when an engineer visits only some of the borrowers and only after completion of the improvement. In this case, he/she cannot even verify whether the improvement took place before the loan was received or after¹⁷.

Of course, formal engineering control is better than the complete lack of it. However, there are many cases when HMF lenders and providers of subsidized liquidity (donors, IDOs, states) do not conduct even minimal engineering control over the target use of funds and ignore the fact that part of the HMF loans are used for purposes different from housing. Managers of Banko ADEMI in the Dominican Republic have even "publicly stated that [control over target use of HMF loans] is contrary their operating philosophy; clients, they believe, must decide for themselves how best to use their own money"¹⁸. Under such an approach the HMF product remains "housing" in name only and in fact becomes a personal loan product.

Demand for HMF loans, that are supported by liquidity at concessional rates and/or cash subsidy, and can de-facto be used at the discretion of a borrower is always great. A significant proportion of most of HMF loans in this case, is used for purposes very different to meeting housing needs. When the liquidity and subsidy support is over, these "housing" programs are normally discontinued.

It can be concluded, that promotion of HMF lending through the reduction of interest rates and cash subsidies does not make a lot of sense.

This approach (a) does not create a sustainable product, (b) requires substantial and costly control over the target use of funds, (c) very often turns out to be a promotion of personal lending rather than of HMF lending and (d) heavily distorts the personal lending market.

5. Support for non-financial services under HMF

The cost of funds is not the only element of home improvement costs that can be influenced to make HMF loans more efficient for financing home improvements than personal loans. Engineering costs¹⁹ as well as labor costs can also be reduced to increase the attractiveness of the HMF product for borrowers. To achieve this reduction, a lender should accompany a HMF loan with the provision of non-financial services that would enable a HMF borrower to save on these costs. The resulting reduction in the total cost of a home improvement will make a HMF loan more attractive for the borrower than a personal loan even if the interest rates for these two loans are the same. If this happens, the HMF product will be in high demand and FIs will become interested in launching the product.

Traditionally non-financial services for HMF lending are called Construction Technical Assistance [CTA] or Technical Construction Services [TCS]. The CTA that helps to save on engineering costs is called a Pre-loan CTA and the CTA that helps to save on labor costs is called a Post-loan CTA²⁰.

To help clients save on engineering costs, FIs (under the Pre-loan CTA) advise them on how to prepare basic drawings, choose the most appropriate construction technology, develop list of necessary materials, and make a cost estimate. To help them save on labor costs, FIs (under the Post-loan CTA) provide advice that enables borrowers to undertake a substantial portion of works themselves and not pay for professional labor.

CTA also enables borrowers to save on another important element of costs, which is the maintenance cost. CTA helps to increase the quality of home improvement and makes houses more disaster resilient. This was demonstrated during the flood of 1988 in Bangladesh. The households

who lived in houses built under the CTA supported HMF lending program of Grameen Bank spent much less than their neighbors on repairing their homes after the flood²¹.

Maintenance costs are also decreasing in the cases when CTA enables borrowers to improve the energy efficiency [EE] of their homes thus enabling them to save on heating, collecting of water, etc. For example, CTA of IFC HMF program in Kyrgyzstan helped the installation of PVC windows in the way necessary to eliminate cracks in joints between the windows and walls, thus radically reducing the consumption of coal in winter.

CTA is professional advice and is provided by engineers. Under some HMF programs these engineers are staff members of FIs. For example, in "most of CHF International HMF programs there is one technical person for every two loan officers"²². Many HMF lenders instead of hiring engineers, outsource provision of CTA to engineering companies.

The issue is that whether these engineers are outsourced or in-house, someone is supposed to pay for their services. Donors, NGOs, IDOs and states finance CTA under many of HMF programs. The MicroBuild program is an example of donor financing for CTA.

There are programs under which CTA for HMF lending is financed by producers of construction materials. They do it under the condition that HMF borrowers will be obliged to purchase construction materials from these producers. The cost of CTA is recouped through the increase in sale volumes. Most known examples of such HMF products are the ones initiated and promoted by cement producers such as Cemex and La Farge – Holcim. The most widely known HMF product of such a type is Patrimonio Hoy in Mexico²³.

Both sources of funds for CTA have their shortcomings. Programs under which CTA is financed by construction materials' producers are not convenient for final borrowers who often prefer to purchase materials from other sources and complain that they are forced to choose a particular supplier. HMF programs under which CTA is financed by donors, IDOs, NGOs or states are not sustainable. They are in most cases temporary

¹⁷ If a borrower shows to a controller a newly painted wall, the controller does not know whether the borrower built the wall and then painted it, or just painted an old wall that was built long before the HMF loan was received.

¹⁸ Daphnis Frank, Bruce Ferguson. *Housing Microfinance: A Guide to Practice*. Kumerian Press, 2004, P. 11.

¹⁹ Preparing a design, a cost estimate, bills of quantities, etc.

²⁰ Daphnis Frank, Bruce Ferguson. *Housing Microfinance: A Guide to Practice*. Kumerian Press, 2004, P.118

²¹ John Norton, "Grameen Bank Housing Project, 1989 Technical Review Summary", P.12. <http://archnet.org/sites/715/publications/906>

²² Daphnis Frank, Bruce Ferguson. *Housing Microfinance: A Guide to Practice*. Kumerian Press, 2004, P.121

²³ Segel, A, Chu, M, Patrimonio Hoy: A financial prospective.

solutions that exist only for the period during which FIs are “convinced” to offer HMF loans.

A FI that wants to conduct HMF lending with CTA independently and in a sustainable way has no choice but to charge final borrowers for CTA. In most cases, FIs that charge borrowers for CTA do not introduce CTA fees, but rather add payment for CTA to the interest rate. Hence, the interest rate for HMF loans becomes higher than the interest rate for personal loans.

A borrower making a decision about what type of loan to use for a home improvement, chooses between a costlier HMF loan with CTA and a less costly personal loan without CTA. In what case will he/she choose a HMF loan? The rational borrower will prefer a HMF loan if the value that the CTA brings to him/her is higher than the difference between the interest rates for the HMF loan and for the personal loan.

In practice, borrowers very rarely conclude that the value of CTA is higher than the cost difference. This is because (a) some borrowers consider that they do not need any CTA although they can't avoid paying for it with an HMF loan, (b) borrowers who need CTA prefer to take a personal loan and purchase CTA on the market.

The CTA that can be purchased on the market is often better, more user friendly and cheaper, than the one that is supplied by FIs. This happens because the engineers, who provide CTA under HMF, do not compete for clients. The clients are submitted to them by HMF lenders, and can't change the CTA provider, even if they are not happy with their services. Such lack of competition normally results in the reduction of quality, so a borrower, who pays extra for a HMF loan to get CTA packaged in it, pays more than a borrower who takes a less costly personal loan and pays for the engineering services in the market.

It looks as if for borrowers there is no sense in choosing a HMF product with CTA if the payment for CTA is included in the interest rate. In most cases, it would be more efficient for a borrower to use a personal loan and to procure CTA services on the market. Hence, making HMF more advantageous to borrowers than personal loans, through the provision of non-subsidized CTA does not make a lot of sense for a FI either. The value that borrowers get is not high enough to justify the relevant increase of lending costs and hence to create a demand for the HMF lending product. Hence, it can't make FIs interested in initiating HMF lending.

6. How to make CTA sustainable

The experience of CTA provision demonstrated that, (a) most low-income people (in every particular region of the world) live in houses which are very similar to each other (one story, rectangular, mud brick walls, mud floor, etc.), and (b) most of the home improvements these people conduct are the same (mend roof, cement floor, add a room, etc.). Due to the above, engineers providing CTA, very often repeat the same advice many times.

Since CTA consists of repetitive advice, it can be standardized and presented to borrowers in the form of ready-made CTA tools. Construction advice to borrowers in the form of ready-made CTA tools is called Pre-developed CTA. To establish a HMF product based on pre-developed CTA, FIs (or donors, IDOs, NGOs, states) must invest in preparing standardized CTA tools. FIs will be able to distribute these tools later to final borrowers without (or with minimum) involvement of engineers. Predevelopment of CTA tools requires up-front costs, but, due to the economy of scale, the CTA based on pre-developed tools, costs practically nothing to each HMF client.

Pre-developed CTA tools cover both pre-loan and post-loan CTA. They can be in the form of electronic calculators and tables to prepare budgets of home improvements, standardized drawings, pamphlets and brochures outlining basic construction procedures, educational videos, etc.

The most well-known HMF product based on pre-developed CTA was initiated in 1984 by Grameen Bank in Bangladesh. For HMF lending, Grameen predeveloped CTA materials necessary to incrementally build a rather primitive small house. The house was very small in size (20 square meters) had bamboo mat walls and a corrugated steel roof²⁴. The average size of a loan necessary to finance the building of that house was TK 8 058 (US 115).

Borrowers were provided with basic construction elements necessary to build the house (including concrete rings for columns, sheets of corrugated steel for roof, materials for roof frame) and schemes and drawings necessary to self-help build the house²⁵.

The program enabled borrowers to save on engineering costs (the design, list of materials and cost estimate were predeveloped) on labor cost (there were instructions on self-help building) and even on material costs (materials were

purchased wholesale by Grameen and brought to borrowers). The program also enabled them to save on maintenance costs due to the better quality of the house and to substantially increase the resilience of houses against natural disasters.

The key issue with the Grameen CTA was that it covered only a very limited number of home improvements. Borrowers could benefit from this CTA only if they were willing to build a particular “standardized” type of a house. If a borrower wanted to build a slightly different house, or to extend the existing one, or to improve it (change the roof, mend the wall, etc.) he had no choice but to take a personal loan with no CTA.

A more universal approach towards pre-developed CTA was implemented under the Kyrgyz HMF project of IFC²⁶. The project first conducted a survey to find out what types of houses low-income Kyrgyz households live in and what home improvements they conduct most often. The survey demonstrated that most of the houses were very similar to each other. They were 6 by 8 meters, were made of mud bricks, had an asbestos roof, one glass window, etc. Most of the borrowers who were questioned wanted to install energy efficient windows (47%), to heat insulate walls (30%), to extend a house or build a new one (20%), etc.

For each of the 10 most popular home improvements IFC pre-developed CTA tools. The tools were in the forms of (a) a calculator preparing a list of materials and a cost estimate for the improvement, (b) leaflets explaining the basics of the suggested technology, (c) detailed educational videos distributed on DVDs.

The calculator gives a credit officer (not a professional engineer) an opportunity to provide engineering advice to a borrower under the pre-loan CTA. To do this the credit officer enters the key dimensions of the house and of the planned improvement (length, height, thickness of walls, etc.) into the system. The calculator prepares bill of quantities and construction cost estimate.

Leaflets and educational videos were prepared to play the role of post-loan CTA. They help borrowers to save on labor costs, and facilitate better quality home improvements, for the increase in disaster resilience (earthquake protection) and for the increase in energy efficiency (energy savings) of the houses. These

²⁴ <http://archnet.org/system/publications/contents/904/original/FLS0914.pdf?1384749010>

²⁵ http://www.akdn.org/architecture/pdf/1066_Ban.pdf

²⁶ The project was financed by SECO – Swiss State Secretariat for Economic Affairs. http://www.ifc.org/wps/wcm/connect/region__ext_content/regions/europe+middle+east+and+north+af/rica/ifc+in+europe+and+central+asia/countries/improving+housing+microfinance

CTA tools gave borrowers detailed step-by-step instructions on how to conduct each piece of work on a self-help basis, choose the necessary materials, ensure safety on the construction site and the quality of work.

It is important that, unlike interest rate and cash subsidies, pre-developed CTA tools can bring value only to poor households. This happens because the tools are valuable only to those, whose houses meet the standardized description of a typical house and who are ready to save on labor costs by doing hard work themselves. Better-off households typically do not value pre-developed CTA because they live in different types of houses than the ones CTA is based on, conduct more complex and costly improvements and prefer to hire labor.

The project also provided for saving on construction materials but it was done differently than in the case of Grameen. FIs providing HMF lending entered into agreements with construction material suppliers. Under such agreements, the FI guarantees that all HMF borrowers would be advised (but not required) to purchase materials from the supplier, while the supplier (in exchange for that recommendation) guarantees that the HMF borrowers will enjoy discounts.

The project was piloted with micro-credit company Baylik Finance (BF) in 2013. IFC provided the company with developed CTA tools and trained credit officers to use them. Liquidity was not provided. BF was using its own funding sources for HMF lending so the interest rate on the HMF loans was the same as on other loans of BF. Borrowers had the choice to finance their home improvements either with HMF loans of BF or with personal loans of BF or its competitors. The only advantage for the borrowers taking HMF loans was the ability to benefit from the pre-developed CTA.

The high demand from low-income households demonstrated that the pre-developed CTA brings substantial value for them. In two years the number of HMF loans grew from zero to 22% of the BF portfolio. The product is sustainable, because it does not require any support. It has never relied on liquidity provided at concessional rates or on external financing of CTA. BF has all that it needs to continue providing value to their clients: pre-developed CTA tools.

It is important that only poor households demanded HMF loan. This is confirmed by the very small average size of the HMF loans of BF, which is only \$700.

The success of BF stimulated 4 other Kyrgyz Microfinance companies to follow suit and launch HMF products based on the same CTA tools.

7. Conclusion

Finance for home improvement is needed by low-income people all over the world. HMF is not the only product that can help them to finance improvements to their homes. They can use for that purpose a personal (consumer) loan, and also micro-entrepreneurial and micro-mortgage loans. However, HMF is the only product that can help them (a) save on the costs of implementation of the home improvement, (b) make the quality of the improvement better, (c) make their houses more disaster resilient, (d) improve the energy efficiency of their homes.

As demonstrated above, among several mechanisms that have been used to create a HMF product, the most efficient and sustainable one is the mechanism based on the pre-developed CTA. The key advantage of the mechanism is that once launched, it does not require any additional financial support, neither in the form of interest rate or cash subsidies, nor in the form of payment for CTA provided to each client. FIs make a HMF product an efficient and popular lending instrument through the use of the CTA tools that they have in their possession. Once the CTA tools are available, the FIs do not require any external support.

When compared to the classical approach to HMF promotion, under which FIs are provided with low-cost liquidity and/or free CTA to make them interested in offering HMF loans, it can be stated that the classical approach brings “fish” to FIs, while the approach based on the pre-developed tools brings them a “fishing net”.

At the same time, this form of HMF has its own shortcomings. The key shortcoming is that it can be used only for a limited number of home improvements. If a borrower needs to conduct a home improvement that has not been identified as the most popular one, or if he/she wants or needs to use slightly different technology than the one that the CTA tool has been based on, he/she will lose the opportunity to benefit from the pre-developed CTA. For low-income people this shortcoming is not as important because most of them do the same (mostly basic) improvements and use the same technologies. However, this shortcoming becomes important for a HMF lender that wants to go up-market where the variety of home improvements and technologies are greater.

Another important shortcoming of this model is that creation of the product requires highly sophisticated work. The quality of the survey to identify the most popular home improvements as well as the quality of the CTA tools development, should be very high. If the most popular improvements are not correctly identified, HMF loans will lose their advantages. The same will happen if final borrowers consider that CTA tools are not clear enough to advise them on doing works on a self-help basis or do not relate to the technology they prefer to implement.

A lot of attention should be given to the training and coaching of credit officers. They need to get basic engineering knowledge, learn how to operate CTA tools and (what turns out to be the most complex in practice) how to explain the benefits of the HMF product to poor and often illiterate borrowers.

The creation of a HMF program based on pre-developed tools requires a highly qualified team of experts with deep understanding of a wide variety of topics such as engineering, development of education materials, training, active sales technique, microfinance lending procedures, software development, marketing, surveying.

Of course, it is much easier to launch a HMF program through the provision of “fish” – low cost liquidity to HMF lenders or external financing to engineers that provide CTA as personal advice to each borrower. Over the last 55 years, such support to HMF programs has been provided many times and proved to be unsustainable. At the completion of each of these programs, as soon as the support was over, it became clear that created HMF programs can't compete by themselves with personal lending and hence can't attract borrowers to FIs. The FIs had no choice but to discontinue the HMF programs or to convert them into personal lending.

The situation would be different if the support were used to pre-develop CTA – a “fishing net” – that could be used by FIs to provide benefits for future HMF borrowers after the support is over. It looks like it is time for donors, NGOs, IDOs and governments to quit supporting HMF lending products again and again with low-cost funding and free TA. It is time to start using a more complex but much more sustainable approach based on supporting the pre-development of CTA tools.