Housing Inclusion

Meeting the Demand
for Housing Microfinance in Mongolia

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Introduction

The central objective of this study is to determine the demand for housing microfinance (HMF) in Mongolia. It identifies who is currently providing HMF loans and the barriers to fully meeting the demand. The paper also recommends next steps for ShoreBank International's (SBI) partners, the International Finance Corporation (IFC) and the Mongolian Mortgage Corporation (MIK), in order to support an enabling environment for HMF in Mongolia and create access to housing finance.

The study found that there is a strong demand for housing microfinance loans in Mongolia. Many residents want to make home improvements and lenders are interested in providing loans to fund these projects. However, lenders face many challenges, including funding, collateral requirements and availability, borrower capacity to repay and appropriate regulations and regulatory support. The assessment discusses a number of solutions, including highlighting the role that MIK can play by providing a housing microfinance liquidity facility. Several lenders currently provide housing improvement loans and in order to promote housing microfinance in the market, there is a need to define housing microfinance as a discrete loan product and develop a stronger understanding of the product and its opportunities and challenges in the market.

Market Assessment Methodology

The first section, Demand Factors, outlines the key drivers of HMF demand, including urbanization, high real interest, high homeownership rates, and seasonality. The second section, Supply Factors, explains a number of factors that contribute to the supply of housing and of housing finance, including affordability, current and future HMF lenders, long term funding availability, and land supply. The third section, Demand Estimate, quantifies the household demand for HMF in urban and rural areas and discusses market segmentation.

The fourth section, Regulatory and Policy Environment, introduces the financial regulatory environment, the land registration and titling process, and the foreclosure process. The fifth section, Meeting the Demand, is a discussion of best practices and how they relate to some of the key issues and challenges related to Mongolian HMF. The final section, Next Steps, provides recommendations that will support the development and expansion of HMF in Mongolia.

The Market Assessment research was conducted in Mongolia on June 7-18, 2010 by Eric Guetschoff, Anna Fogel, Narayanasamy Kokularupan, Ts. Enkhbayar, Onon Jargalsaikhan, Sugarnyam Peljee. During the course of our research, we met with numerous lenders and stakeholders. We interviewed 105 potential borrowers in two districts of Ulaanbaatar and one district of Darkhan and conducted two focus groups, one in Ulaanbaatar and one in the rural soum of Bayanchandman. The questionnaire is located in the Appendix. In addition, we conducted a full review of relevant literature and met with the National Statistical Office. One key source of secondary information is the World Bank's special report on Ulaanbaatar's Ger Areas, entitled, *Mongolia: Enhancing Policies and Practices for Ger Area Development in Ulaanbaatar*. The project is funded by IFC.

The study was updated to reflect feedback from the two-day housing microfinance training and workshop, led by ShoreBank International in Ulaanbaatar on October 14^{th} and 15^{th}, 2010. The training was divided into financial analysis and construction technical assistance and was aimed at loan officers and lenders. The workshop was attended by 47 housing microfinance stakeholders, including 14 financial institutions. The sessions were highly interactive and provided a valuable source of information about the market and recommended next steps.

Defining HMF in Mongolia

Mongolian lenders currently provide loans for home improvement to low and middle income. While the lenders do not necessarily define the products as HMF, the products meet many of the typical housing microfinance product and target market definitions. This includes: (a) a focus on low income clients, (b) products with a longer tenor and larger amount than typical microfinance loans, and (c) are used for home improvement and incremental building.

There is an inconsistency in the definition and product offerings of HMF in Mongolia. SBI recommends convening an industry-wide workgroup to establish consistent features and descriptions of HMF loans, as defined in the assessment below. BOM has expressed an interest in being part of the working group which will lend the group credence with policy makers as well as lenders. MIK should help to coordinate these meetings, as it has a strong interest in this issue and will see clear benefits should the HMF market flourish. The HMF training, held in October 2010, provided a foundation for this working group and all participants were asked to propose terms and definitions of housing microfinance products for the Mongolian market. Based on this feedback, the market assessment and international best practice, SBI recommends the following product features as a starting point for further conversations among stakeholders:[1]

Table 1. Sample definition of housing microfinance product

Loan Term	***Definition***
Purpose	Home improvement and repairs House construction House and/or lot acquisition
Eligibility	Existing microfinance clients New clients who are eligible for microfinance loans
Loan Amount	Up to ₮50,000,000 for home and/or lot acquisition Up to ₮20,000,000 for house construction Up to ₮10,000,000 for home improvement/repairs Incremental loan amounts to support incremental building
Debt to Income Ratio	Up to 40%
Loan Value	Up to 70% of the appraised value in case of real estate mortgage Acceptable valuation in cases of leases Capacity to pay based on household cash flow analysis
Collateral Payment	Loans may be secured with movable or immovable collateral Frequent amortization Loan payments should not exceed a reasonable percentage of clients' income as determined by cash flow analysis; capacity to pay should be determined through a clear credit process May involve savings component
Terms	Up to 8 years for house construction and house and lot acquisition, subject to bank credit policies From 3-5 years for home improvement and repairs

The definition was developed by considering international best practices, the demand for HMF products and the current products offered by Mongolian lenders, as described below and throughout the assessment. Such a definition will build the foundation for loan standards within the Mongolian financial sector. The interest rate, not specified above, will be determined by the financial institution, and will vary depending on a number of factors determined by the financial institution's product pricing structures.

The definition of HMF and working group should be informed by HMF best practices. One component of meeting HMF demand is the extent to which lenders are successful in implementing international best practices. SBI introduces HMF best practices in more detail in the companion publication, *Housing Microfinance Toolkit for Mongolia: Guidelines for Product Development and Operations* and provides a definition and product guidelines in the assessment.

HMF Best Practices

HMF is a distinct product from traditional microfinance or mortgage lending and is designed to match the financing with the way the poor build and improve their homes. HMF products are used for incremental building rather than purchasing a home or borrowing a large sum to finance the entire construction process. Up to 70% of populations in developing countries build houses incrementally. The loans are larger than traditional microfinance loans, with longer terms that increase affordability.

HMF products are often unsecured or rely on alternative forms of collateral. This will be important, even with Mongolia's high homeownership rates. Alternative collateral techniques include: mandatory savings, fixed assets, movable assets, deposits, pension guarantee, personal guarantee, group guarantee, employer guarantee, cosigners, and microenterprise loan history.

Due to the diverse nature of lending in Mongolia, other international best practices may be employed, including:

- Underwriting using nontraditional techniques
- Linking HMF to other loan products
- Using fixed interest rates
- Individual rather than group loans
- Client education
- Focusing on women borrowers

Current and potential HMF providers and actors

There are two main delivery channels for HMF in Mongolia: commercial banks and non-bank financial institutions (NBFIs). In terms of commercial banks, XacBank and Khan Bank have emerged as the main players in providing HMF, though there is an inconsistency in their understanding of the market and product offering. Khan Bank, the country's largest commercial lender with an extensive national branch network, groups the HMF product with the mortgage lending program and lacks an understanding of the HMF borrower. XacBank is a full service bank that focuses on the microfinance market. It has a strong interest in offering a HMF-focused product targeting the HMF population and should be considered as a critical player in developing HMF in Mongolia.

There is an inconsistency among the Mongolian lenders in their understanding of the target market and HMF product offering. XacBank is motivated by a combination of social lending and profitability and has developed a number of products that target Ger Area residents. Khan Bank lacks an understanding of the borrower and the product and includes home improvement lending as part of its mortgage lending program, with similar restrictions and requirements, such as collateral.

NBFIs focus on underserved markets and expressed a strong interest in providing HMF loans. Among the NBFIs, some currently provide HMF while others have provided this product in the past. While NBFIs have faced a number of challenges in providing HMF in the past including limited long-term funding, these lenders should be prioritized in providing HMF loans in the future as they have extensive experience and a good understanding of the target market and flexibility in lending procedures and requirements.

Investors, beyond direct lenders, in HMF loans do not exist in Mongolia, at least on a large scale. One promising solution involves the Mongolian Mortgage Corporation (MIK), which was founded in 2006. It has successfully packaged bonds backed by mortgage loans. MIK sells the bonds to the Bank of Mongolia (BOM), which eventually plans to sell them to private investors. MIK believes it is possible to package and sell HMF loans in the same way, and is enthusiastic about providing a liquidity facility for HMF lenders. Challenges include the lack of long-term investors and the availability of local pension funds, and we recommend the establishment of a working group to address important prerequisites for the success of the liquidity facility, further discussed below.

Current HMF Product Offerings in Mongolia

There are a number of financial institutions, including banks and NBFIs, that are currently offering home improvement or housing microfinance loans. XacBank and Khan Bank currently provide the vast majority of home improvement loans. While bank interest rates are more favorable than those offered by NBFIs, the underwriting criteria are also more difficult to meet. NBFIs, which are generally smaller than banks, focus on underserved markets. One example of an NBFI that offers HMF is Netcapital. Undrakh Nergui, CEO, explains that access to finance is more important to their clients than interest rates. One reason Netcapital's interest rates are higher is the higher administrative costs that relate to HMF loans. Netcapital identified a couple of reasons for higher costs, including locating transient clients who leave the city when trying to evade repayment and Mongolia's lack of a comprehensive registration system for its citizens.

The table below provides a selection of the Mongolian lenders who currently provide home improvement loans targeted to Ger Area residents, and represents lenders who met with SBI rather than a comprehensive list of all HMF providers.

Table 2. Home Improvement Lenders

Lender	*Max Loan*	*Monthly Interest*		*Max Amortization*
		Min	*Max*	
General Finance NBFI	₮10,000,000	3.00%	4.00%	24
Khan Bank	₮10,000,000	1.65%	1.75%	36
Netcapital NBFI	₮6,000,000	5.00%	6.00%	12
Transcapital NBFI	₮4,250,000	2.90%	3.60%	18
XacBank	₮10,000,000	1.80%	2.30%	24

The chart below indicates the housing improvement loan portfolios for various lenders. One key point is that NBFIs currently have a small share of the overall housing improvement loan market. As stated above, this is a selection of lenders and is not a comprehensive list.

Table 3. Home Improvement Portfolio Size

Lender	*Portfolio*	*No Loans*	*Average Loan*
General Finance	₮41,900,000	13	₮3,223,077
Khan Bank[2]	₮9,000,000,000	NA	NA
Netcapital	₮73,368,948	62	₮1,183,370
Transcapital	₮65,734,348	58	₮1,133,351
XacBank	₮16,776,738,315	8782	₮1,910,355
Total	**₮25,957,741,611**	**8915**	**₮1,902,158**[3]

Demand Factors

This section takes a closer look at some of the factors that shape HMF demand in Mongolia, including urbanization, interest rates, homeownership, and seasonality.

Urbanization

Mongolia is a rapidly urbanizing country. The capital city, Ulaanbaatar, home to 39% of the population, provides a case study of urbanization. According to the World Bank, "The city's population has grown from 600,000 in 1989 to more than 1 million in 2007 and is expected to reach 1.3 million in 2015."[4] Other Mongolian cities expect similar growth trends, as herders and others have moved to cities in search of employment. As rural residents migrate to cities, they generally move to outskirts and establish Ger Areas, living in gers on *khashaas* (plots of land). In Ulaanbaatar, Ger Areas comprise over 90% of the city. The average annual income of Ger Area households is about ₮ 2.3 million, compared to over ₮ 3.9 million for those living in the centrally located apartment district.[5]

As migrants become more established in the cities, Ger Area residents build detached houses within their *khashaas*. The development of detached housing is one of the key drivers of HMF demand, as the houses are comparatively expensive to build, improve and maintain. In Ulaanbaatar, 61% of Ger Area residents now live in detached houses.[6] However, there is variation depending of the type of Ger Area, as outlined in the table below.

Table 4. Dwelling Types

	Ger	%	Detached	%	Apartment	%	Total HHS
City Center Ger	1800	59	1,100	36	150	5	3,050
Mid-Tier Ger	460	29	1,151	71			1,611
Fringe Ger (Sharhad)	1,418	58	1,105	42			2,433

As depicted above, the World Bank identifies three types of Ger Areas: City Center Ger Areas which have longer histories and whose residents are well-established, Mid Tier Ger Areas which are less well established but conveniently located, and Fringe Ger Areas which are areas in which migrants have recently settled.

There are a host of challenges that arise from this urban development pattern. Ger Areas have developed in a fluid manner and are not served by basic infrastructure or services, forcing residents to develop informal solutions for water, heating, electricity, roads, sanitation, and transportation. This study will not explore the broader implications for urban development other than to acknowledge that it impacts housing microfinance clients and the HMF product offering.

High Interest Rates

The cost of borrowing money in Mongolia is high. Interest rates for HMF loans can be as low as 1.65% and as high as 6% per month. Cost of funds is high due to a number of factors, including a recent shift as banks have become liquid and depositors are demanding short term high rate accounts. Additionally, few foreign investors have invested in the Mongolian financial sector, further increasing the cost of funds up.

High interest rates exert a downward pressure on HMF demand. A recent UNDP study which surveyed Ger Area residents of Ulaanbaatar, Darkhan, and Erdenet, found that 70% believe that "home loan" interest rates are too high.[7] The study found that those respondents who believe loan interest is high are less likely to want to build a house in the future. Twenty nine percent of residents expressed a concern about being over-indebted.[8]

Homeownership

Homeownership rates in Mongolia are high. Depending on the Ger Area, between 80-99% of households own their home.[9] Mongolia's high homeownership rates increase demand for HMF, as people who own their land are more likely to want to make home improvements and will be more able to provide collateral. Lenders use land as collateral for HMF and other loans.

The "Land Allocation Law to the Mongolian Citizens for Ownership" of 2002 gave each household the right to 700 square meters of land. To claim the land, each person must identify a plot, stake it out, and fulfill the administrative requirements. The law was amended prior to the 2008 election to increase "residents holding entitlements by 400-500% on average."[10] Not surprisingly, this created a land rush in the urban periphery. Nonetheless, the deadline to claim one's land is approaching, which may encourage another land rush if the deadline is not extended.

Given Mongolia's land ownership rights, it is interesting to note that there is a segment of the market who rent. Low and middle income apartment renters are also potentially part of the HMF market. As shown in the table below, renters live in apartments (6% of apartment area residents) or in a ger on another family's khashaa (18.5% of Fringe Ger Area residents). The chart below outlines the ownership patterns in various Ulaanbaatar districts.

Table 5. Ownership Patterns for Housing and Land (%)

	Owned	Rent	Others	Private	State-owned	Others-owned
City Center Ger	108 (97.3)	1 (2.7)	0 (0.0)	109 (99.1)	0 (0.0)	1 (.09)
Mid-Tier Ger	108 (98.8)	2 (1.2)	0 (0.0)	84 (87.9)	23 (6.7)	2 (5.4)
Fringe Ger	100 (81.5)	10 (18.5)	0 (0.0)	96 (75.7)	1 (.05)	12 (21.4)
Apartment Area	100 (91.8)	7 (6.4)	2 (1.8)	65 (59.6)	36 (33.0)	8 (7.4)

Seasonality

The HMF market is subject to seasonality due to the severe Mongolian winters which regularly last six months, during which time temperatures can drop to -30 Celsius. On average, Ger Area households spend 40% of their income on heating during the winter. HMF demand spikes in the fall, as households prepare their homes for the coming winter. Income for informal sector employment falls during the winter and all external construction ceases. Thus, HMF demand falls sharply during the winter, and some lenders stop lending HMF products during the winter season. Low winter income negatively impacts the availability of borrower funds for down payments during the spring. HMF demand picks up again during the summer as savings increase, and people begin larger projects that involve longer timelines.

These findings were confirmed by SBI's client survey of 105 Ger District residents in two districts of Ulaanbaatar and one district of Darkhan, as 49% of respondents experienced seasonality in income.

Supply Factors

This section will analyze key supply factors affecting the HMF market, including affordability, HMF lenders, long term funding, and land supply.

Affordability

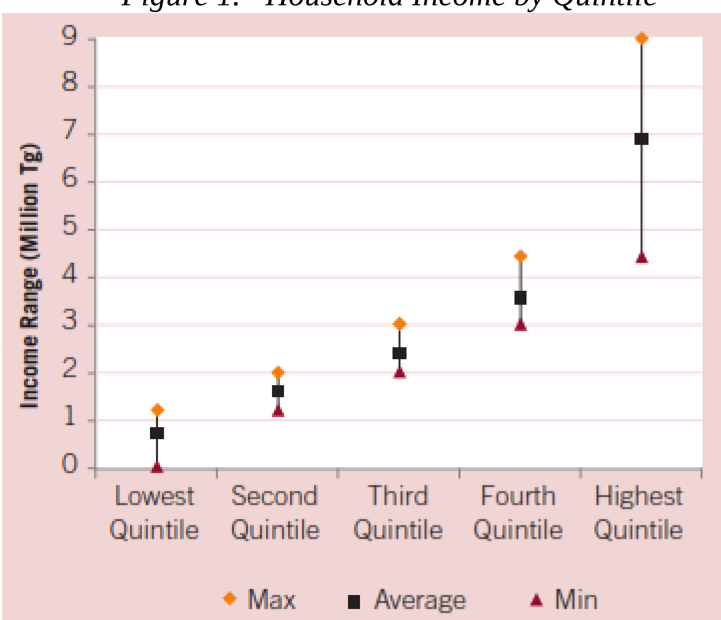
The discussion of affordability is addressed in two interrelated veins: housing affordability and loan affordability. In Mongolia, there are three housing types, all of which are relevant for HMF: gers, detached housing, and apartments. These are the three most common housing types in Mongolia. Gers and detached housing are commonly financed by HMF. Furthermore, a significant percentage of low and middle income families rent apartments and strive to own an apartment. According to the World Bank, notwithstanding land registration fees and taxes, the cost to construct each is detailed in the following table.

Table 6. Housing Type and Cost

Type	*Tugrik*	*Dollars*
Ger	₮1.82 million	$1,300
Detached housing	₮18.9 - ₮29.4 million	$13,500 - $21,000
Apartments	₮43.4 - ₮60.2 million	$31,000 - $43,000

The figure below divides the household income into quintiles.[11] It reveals that 60% of the overall population has income of ₮ 3 million or less per year, and the median income for Ger Area households is ₮ 2,496,897.

Figure 1. Household Income by Quintile



Analysis of Cost of Shelter

Using the ger as the lowest entry point for housing, the chart below illustrates that the cost of a ger ranges from 2.28 times annual income for the lowest quintile to 51% of annual income for the 4th quintile. Conversely, the cost of a detached house for the 1st quintile increases to 23 times annual income and spikes to 54 times annual income for an apartment.

Table 7. Multiple of Annual Income to Housing Unit Cost

Quintile	*Average Annual Income*	*Ger ₮1.82 mil*	*Detached ₮18.9 mil*	*Apartment ₮43.4 mil*
1st	800,000	2.25	23.63	54.25
2nd	1,700,000	1.06	11.12	25.53
3rd	2,400,000	0.75	7.88	18.08
4th	3,500,000	0.51	5.40	12.40
5th	6,900,000	0.26	2.74	6.29

The purpose of this illustration is to demonstrate that the first obstacle for the majority of Mongolian households is the overall cost of housing. The most affordable housing product will be for simple structures and home improvements and repairs.

Housing Affordability

To emphasize the gap between the overall cost and affordability of housing in Mongolia, the following chart illustrates, as a percentage of average purchase price of housing, how much a citizen in Mongolia would be required to have as a down payment.

During our survey, Khan Bank reported that they were making residential mortgage loans. Their current rate was 18% with a maximum term of 10 years. Using their current policy for Debt to Income Ratio (DTI) of 40% of gross income, a 10 year amortization, with an 18% annual interest rate, the figure below determines the required down payment as a percentage of the total construction costs.[12] For a ger, the down payment requirement is less than 30% for all quintiles. If the lender uses an 80% LTV requirement, the down payment for a detached house is out of reach of the average income for all quintiles. For this reason, many Mongolians must rely heavily on savings or alternate measures to finance housing investments. The "Housing Finance Sources" chart in the HMF Lenders subsection shows the extent to which borrowers use savings for housing finance.

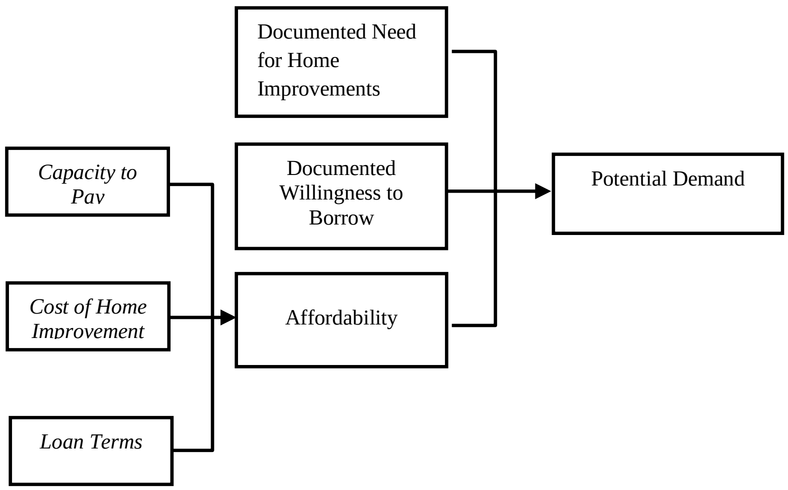
Table 8. Down payment Requirement for Various Housing Options

Quintile	*Average Annual Income*	*Ger ₮1.82 mil*	*Detached ₮18.9 mil*	*Apartment ₮43.4 mil*
1st	800,000	24%	93%	97%
2nd	1,700,000	S	85%	93%
3rd	2,400,000	S	78%	90%
4th	3,500,000	S	68%	86%
5th	6,900,000	S	37%	73%
S – loan amount sufficient to purchase with 30% down payment				

HMF Affordability

Our next analysis was the cost of HMF in the Mongolian market, based upon the current cost of funds. We identify three components of HMF affordability: capacity to pay, the cost of the home improvement, and the loan terms. This point is illustrated visually by Franck Daphnis' diagram, replicated below.[13]

Figure 2. Estimating affordability and potential demand for HMF services



We use a loan amount of ₮ 1.9 million (average loan size), a 3% per month interest rate, a 24 month term, and a DTI of 40%. The following chart illustrates borrower eligibility:

Table 9. Affordability of HMF Loan

Quintile	Monthly Income	Monthly payment	Percent (%) of Monthly Income	Approve/ Decline
1st	66,667	112,190	168%	D
2nd	141,667	112,190	79%	D
3rd	200,000	112,190	56%	D
4th	291,667	112,190	38%	A
5th	575,000	112,190	20%	A

This analysis identifies borrower capacity to repay as a key issue, a concern highlighted by all lenders interviewed by SBI. The fact that only the 5th quintile (and part of the 4th quintile) can afford such a loan means that borrowers from other quintiles must lower the amount they borrow. This is a key feature of the HMF product. Since project costs, to a certain extent, can be modified based on capacity to repay, carefully structured HMF products can include a much wider population than indicated by this analysis.

One barrier to affordability is the interest rates demanded by lenders. If rates are lowered to 1.5% per month, affordability increases as illustrated below.

Table 10. Affordability of 1,900,000 loan at 1.5% per month

Quintile	*Monthly Income*	*Monthly payment*	*Percent (%) of Monthly Income*	*Approve/ Decline*
1st	66,667	94,856	142%	D
2nd	141,667	94,856	67%	D
3rd	200,000	94,856	47%	D
4th	291,667	94,856	33%	A
5th	575,000	94,856	17%	A

HMF Lenders

Mongolia has a crowded and competitive financial sector. There are currently 14 banks and 174 NBFIs that serve a population of 2.6 million people.[14] Many NBFIs focus on the underserved low and moderate income population that are unable to qualify for products with traditional banks.

As many lenders focus on mortgage loans for the middle and upper income segments, HMF is a natural next step. Interviews with lenders and other experts reveal that many believe that low income residents comprise an underserved and promising market. Focus groups and client surveys suggest that low income residents are enthusiastic about conducting home repairs and have a strong desire to obtain loans to fund repairs.

However, due to the low repayment capacity issues noted above, as well as lack of sufficient collateral, many borrowers are unable to obtain desired loans. As such, the vast majority of housing needs are financed with savings, as highlighted in the figure below.

Table 11. Housing Finance Sources (₮ million)

Location	*Housing Type*	*Self-financing*	*%*	*Loans from banks or others*	*%*	*Total*
City Center Ger	Detached houses	7.197	91.2	0.692	8.8	7.888
	Apartment	31.510	89.6	3.653	10.4	35.162
Mid-Tier Ger	Detached houses	10.521	97.7	0.242	2.2	10.765
Fringe Ger	Detached houses	5.487	95.3	0.267	4.7	5.754
Apartment area	Apartment	31.245	80.7	7.463	9.3	38.709

SBI's client survey indicates that family and friends are a major source for home improvement financing, providing financing to 66% of respondents. Formal lenders are also a significant source, providing loans to 26% of respondents.

Table 12. Home Improvement Funding Sources

Survey responses	
Savings	6%

Formal loan	26%
Informal loan	0%
Family/friends	66%
Other	14%

Lenders have recognized the high demand for HMF and many are already providing home improvement loans to Ger Area residents and are interested in increasing this part of their portfolios.

XacBank referred to this population as its focus, due to the fact that 60% of Ulaanbaatar lives in the Ger Areas and is underserved. The leaders of the Mongolian NBFI Association expressed that their members have a strong desire to provide HMF. Even though low income borrowers are traditionally viewed as riskier, some lenders reported that NPLs for such loans in Mongolia were the same or lower than for mortgage loan portfolios. XacBank stated that low income borrowers are more financially responsible than those with higher incomes. Few lenders, however, see HMF as a product that is distinct from their mortgage product lines, although XacBank expressed an interest in moving in this direction.

Our interviews with lenders generally indicated that HMF is profitable, as yield curves and the spread between cost of funds and weighted average contracts are higher than for other loan products. Most lenders currently providing HMF loans experienced low NPL rates, and as such expressed a strong desire to expand their portfolios. Khan Bank noted that its housing improvement loans have a 3% NPL rate, about the same as its overall mortgage portfolio. Other lenders had the same or lower NPL rates.[15] According to Khan, the industry average NPL for mortgages is 4.2%.[16]

Lower NPL rates may mean that loan collections and special servicing are a high priority for most lenders. Thus, while this report was not intended to include an analysis of profitability of HMF lenders' portfolios, the reader should be cautioned to consider the incrementally higher servicing costs and overhead associated with smaller loans. It is also important to note that the costs for providing HMF are much higher than for mortgage loans. HMF requires more transactions on smaller loan amounts and a more thorough analysis of the borrower and project.

Long Term Funding

Long-term funding availability is critical for the success of housing finance sectors. Housing loans tend to be larger than many consumer and small business loans and therefore have longer maturities, necessary to make the monthly payments more affordable.

A key challenge for Mongolian lenders, in particular NBFIs, in providing HMF is funding limitations. The Financial Regulatory Commission (FRC) rules state that NBFIs: (a) cannot accept deposits and (b) can only borrow from other financial institutions. However, since banks view NBFIs as competitors, NBFIs' funding is effectively limited to equity. As a result, according to the NBFI Association, NBFIs as a whole are capitalized by 80% equity. NBFIs interviewed stated that as demand grew as the number of loans they issued grew, due to satisfied borrowers who referred others. However, NBFI equity capital was depleted by the growing loan portfolio to the extent that no new loans could be issued. Two NBFIs interviewed described their experience in providing HMF for a limited time before exhausting their capital and having to halt their HMF loan product. While it is reasonable to expect that interest collections would replenish the capital pool, the NBFI's interviewed did not provide balance sheets and income statements for analysis.

Lenders that use secured debt funding may be faced with shorter maturities on the borrowed funds than the maturities on the loans to their borrowers, leading to a maturity mismatch. Further, debt funding places lenders with a potential inverted yield curve between their cost of money and loan income in a rising rate market. This is a challenge for HMF internationally. Even liquid commercial banks in Africa, for example, are hesitant to launch long-term housing finance products because of the maturity mismatch with their core deposit base. In some countries, an additional challenge to raising long-term funds is the restrictions placed on microfinance institutions in relation to mortgage and asset-backed financing that are often imposed by local governments.

Land Supply

Mongolia has amongst the lowest population densities in the world, with only 1.67 people per square kilometer.[17] Land laws generously distribute land to citizens, as described above, which allows for the high home ownership rates outlined earlier and secure land tenure. This has a generally positive impact on HMF demand. High homeownership rates allow for increased collateral availability.

However, low land values and the illiquid nature of the land market exert a downward pressure on land values. As such, lenders often see Ger Area or rural land as insufficient for collateralizing HMF loans, as the collateral is generally not high enough in value and is illiquid. Thus, lenders use the land for collateral when land value is sufficient, but providing collateral is often problematic for borrowers in rural or peri-urban areas.

Demand Estimate

Among key stakeholders in the Mongolian market, there is little question of the large and unmet demand for financing for low-income borrowers to make housing improvements. Low-income borrowers are underserved and consider housing improvements a priority. There is high demand for HMF throughout the market: SBI's survey indicates that 87% of respondents are interested in obtaining a loan to construct or improve their home. The HMF training participants were unanimous in their conviction of the high demand in the market for home improvement and home improvement financing.

The diversion of microfinance loans for housing improvement uses further indicates high demand for HMF. Amongst those surveyed that have borrowed any type of loan in the last three years, 36% used the funds for home improvement. This is a global indicator for HMF demand; practitioners estimate that 10 to 20 percent of all microfinance loans are used for housing and in some countries, as much as 80 percent of microfinance loans are diverted to housing.[18] Credit Mongol reported that 60 percent of its microenterprise portfolio is used for housing improvements.

In order to establish a reliable estimate for HMF demand, SBI conducted desk research and gathered qualitative and quantitative data to support our findings. However, the lack of reliable and comprehensive statistics was a challenge in sizing the HMF market. To mitigate this, SBI used proxies, cross-checking statistics and reports. We also confirmed key statistics through focus group discussions and client surveys.

In order to estimate the value of the market, SBI calculated the number of potential borrowers for rural and urban areas. This was achieved by using a formula based on the following variables:

1) Number of households (country population ÷ average household size)
2) Percentage of population that is urban or rural
3) Percentage of the population not served by formal mortgage lenders
4) Percentage of households that want a loan
5) Percentage of households who can afford a loan

We multiply each of these variables separately for both the urban and rural populations to produce: 6) Number of potential borrowers. We used the following data for each variable.

1 & 2) Number of households & Percentage of population that is urban or rural

Using World Bank data, SBI calculated the number of households based on a population of 2,641,000 and an average household size of four. This was then multiplied that by the percentage of the population that is urban or rural, which is 57% and 43% respectively.[19]

3) Percentage of the population not served by formal mortgage lenders

This number quantifies the number of people who cannot obtain a formal mortgage loan. Each figure was then multiplied by the percentage of the population not served by formal mortgage lenders. In 2008, there were 16,590 mortgage borrowers in Mongolia. Using the above figures for number of households, only 2.5% of the population is accessing mortgage finance. As this percentage includes children, we estimated that, at a maximum, 25% of the Mongolian population has access to housing finance, though in reality it is probably even lower. This is in line with HMF expert Bruce Ferguson's estimate that 30% can afford a mortgage loan.[20],[21]

4) Percentage of households that want a loan

In order to calculate the effective demand for HMF loans, MIK estimates that 70% of the population wants loans and cannot access financing. SBI's client survey, confirms this number, as 87% reported that they were interested in receiving housing microfinance. While these numbers don't precisely match, they are in the same range and the latter provides a good check.

5) Percentage of households who can afford a loan

Finally, we calculated the number of potential borrowers who can afford a loan, in which we considered two main factors: credit worthiness and capacity to repay. The affordability, or capacity to repay, was assessed by evaluating income levels. According to the National Statistical Office (NSO), the average annual income for the urban population was ₮5,458,248 and the average annual income for the rural population was ₮3,979,200.[22]

However, these are likely significantly higher income levels than those targeted for housing microfinance. The World Bank estimates that 36% of the population lives below the poverty line, which is ₮24,743 per month, or ₮296,916 per year.[23] In the report, "Enhancing Policies and Practices for Ger Area Development in Ulaanbaatar," the Ger Area average household income in Ulaanbaatar is ₮2,892,000, and for apartment households was ₮4,565,000. As calculated in the Affordability subsection, 40% of the urban population can afford an HMF loan. Given the lower incomes in rural areas, we estimated the affordability of the rural population as 30%. Taken together with the percentage of the population that is not served by formal mortgage lenders, as well as the other variables, this variable helps to quantify those who can afford an HMF loan but are not currently served by formal mortgage lenders.

The demand estimate is built on conservative assumptions. The Affordability Analysis uses a relatively high loan amount that can be revised downward, if the borrower does not qualify. This is a key feature of home improvement loans. SBI believes that a well-designed HMF product may reach a higher percentage of the population.

6) Number of potential borrowers

Based on this calculation, the total market size for HMF is 123,747 households, with 79,031 in urban areas and 44,715 in rural areas. The calculation is depicted in the next subsection.

In order to calculate the value of the potential market, we assumed an average loan size of ₮1.9 million. This results in a potential market value of over ₮235 billion or more than $55.9 million. Once again, we believe this is a conservative estimate, and that real, unmet demand may be higher.

Table 13. Calculation of Demand

	1		2		3		4		5		6
	Country population ÷ Average HH size	*x*	*% Pop that is urban or rural*	*X*	*% Pop not served by formal mortgage lenders*	*x*	*% HH who want a loan*	*x*	*% HH who can afford a loan*	=	*Number of potential borrowers*
Urban	2.641M ÷ 4	x	57%	X	75%	x	70%	x	40%	=	79,031
Rural	2.641M ÷ 4	x	43%	X	75%	x	70%	x	30%	=	44,715

Market Segmentation

An ACCION study emphasizes that, "the potential of housing microfinance depends on the MFI's ability to move beyond the confines of its original product characteristics and more deeply understand and respond to the needs of its clients."[24] There are three key target markets for HMF lenders. The first market is urban Ger Area residents who want housing improvement loans and home construction loans. The second market is rural residents who want housing improvement loans and home construction loans. The third market is low income urban apartment renters who want to buy furnishings, appliances, or other household items. These residents may in the near future become candidates to purchase low cost apartments.

In the process of gaining a better understanding of client needs, lenders should further segment these target markets, based on their own experience and customer research. Market segmentation helps to focus lenders' business strategy and inform product development strategy to meet customer demand. This section presents some of the key factors that lenders should consider in further defining which market segments on which they want to focus. These factors include the following:

- Income level
- Energy efficiency needs
- Ger Area
- Geographical differences

Income Level

The starting point for market segmentation is borrower income level. Because capacity to repay is a central issue facing borrowers, various income levels create important market dynamics. For example, higher income borrowers will be better able to afford loans to build new houses. Likewise, lower income borrowers will find that their best option is a home improvement loan.

Energy Efficiency Needs

Another market segment is borrowers interested in improving energy efficiency. SBI's client survey indicated that 34% of borrowers have conducted energy efficiency repairs, and 64% plan to do so in the future. The financial argument for conducting such repairs is compelling. XacBank recognized this and developed two loan products centered on specific products. Another strategy might be to work with NGOs that are doing educational work on energy efficiency to reach out to potential borrowers that need financial assistance resolving their heating and energy production demands.

Ger Area

Different Ger Areas have different characteristics. As highlighted in the chart below, City Center Ger Areas have higher income residents than other Ger Areas, with levels comparable in some respects to the Apartment Area. While Apartment Area residents have considerably more income, City Center residents save more. The Mid-tier Ger Areas have similar monthly income to the Fringe Ger Areas, though Mid-tier residents have considerably higher assets.

Table 14. Household Assets, Liabilities, Income, and Savings

	Total Assets					
	Illiquid Assets (property)	Liquid assets (cash, stocks, cars)	Total	Total Liabilities	Monthly Income	Monthly Savings
City Center Ger	21,920	4,381	26,196	2334	223	70
Mid-Tier Ger	13,521	935	14,454	42	154	14
Fringe Ger	8,958	312	9,266	46	164	5
Apartment	26,444	1,362	27,806	2,049	319	21

Housing prices and types vary by Ger Area. With regard to housing prices, housing values near the city center are higher. While the below table indicates that Fringe housing values are actually the highest, this is possibly due to higher income residents' summer homes. As depicted earlier, the dwelling type differs by Ger Area; the Mid-tier has the largest concentration of detached housing with 71%.

Table 15. Housing Prices and Annual Operations and Maintenance Costs

Location	Dwelling Type	Estimated current price	Avg annual price increase	Annual O&M cost
City Center Ger (Naran)	Ger			700
	Detached house	434,980	29.0%	7,140
	Apartment	1,076,600	15.5%	13,020
Mid-Tier Ger (Bayankhoshuu)	Ger			140
	Detached house	324,940	24.2%	1,680
Fringe Ger (Sharhad)	Ger			140
	Detached house	449,960	15.7%	2,800

Apartment Area	1,226,960	10,080

Indeed, these categories are useful for analytical purposes. However, it's important to note that each Ger Area has its own unique characteristics that stretch beyond such financial indicators. Understanding the market and targeting borrowers is a key component of winning business. It is important for each lender to build upon this market research and decide upon which demographics they want to focus their efforts.

Geographical Differences

Further segmentation exists in urban versus rural areas. Given the trend towards urban migration, it is evident that employment opportunities are better than those in rural areas. According to the National Statistical Office, average rural incomes are approximately 73% of urban incomes, and rural poverty is at 43%, in comparison to 30% of the urban population.[25], [26]

There are also differences in the income levels for Ulaanbaatar residents versus those that live in secondary cities, such as Darkhan and Erdenet. The UNDP study reported that the average income level for Ulaanbaatar Ger Area respondents was ₮ 505,800, while for Erdenet income levels were ₮ 438,000, and ₮ 327,400.[27] Beyond income, there are differences in perceptions of environmental problems: 46% of Ulaanbaatar residents believe that air pollution has "reached a crisis level," while in Darkhan and Erdenet, less than 5% see it that way.[28] This may imply that loans to enhance energy efficiency will be less popular in secondary cities. However, the money-saving argument for energy efficiency measures remains regardless of people's perceptions of air pollution.

Each geographical location has unique characteristics that will factor into lenders' key decisions on topics such as product design, marketing, and operations.

Regulatory and Policy Environment

Perhaps more than any other financial product, the ability to successfully provide housing finance is highly dependent on the legal, regulatory and market conditions. This section will provide a brief sketch of the regulatory and policy environment, as it impacts HMF providers.

Financial Regulatory Framework

Mongolia has several government agencies that relate to financial regulation, in particular the regulation of housing finance. Those agencies include the Bank of Mongolia (BOM), the Financial Regulatory Commission (FRC), and the Ministry of Finance (MOF). In addition, these three agencies collaboratively supervise the Financial Stability Board (FSB). The FSB is responsible for forecasting financial sector developments, assessing current and future risks, and "recommending coordinated action to the appropriate authorities to manage sector-wide risks in a more proactive and effective manner."[29]

There are four preconditions to effective banking supervision: (a) soundness and sustainability of macroeconomic policy, (b) legal infrastructure, (c) effective market discipline, and (d) mechanisms for providing an appropriate level of systemic protection or public safety net.[30] The IMF found that the Mongolian regulatory environment met each of these preconditions. With regard to the legal requirements, the IMF noted the need for legal revisions to the banking law, securities market law, mortgage collateral law, and mortgage securitizations law. The latter two revisions were recently completed. With regard to systemic protection, Mongolia lacks a compulsory deposit insurance plan.[31]

The BOM is in charge of monetary policy and supervises the activities of all 16 commercial banks. Also, the BOM, along with 9 commercial banks, is a founding shareholder and current board member of the Mongolian Mortgage Corporation (MIK). Its activities are supervised directly by the Mongolian Parliament, the State Great Khural. The IMF's recent assessment of Basel Core Principles for Effective Banking Supervision found that "banking supervision is relatively well developed in comparison to other countries at Mongolia's stage of transition. The BOM has built the necessary expertise and put in place a supervisory framework for risk-based supervision of banks."[32] Its staff has a high level of expertise and BOM has ample funding. Certain governance deficiencies exist, but are in the process of being improved.[33]

Established in 2006, the FRC is a relatively young agency. The FRC has supervisory responsibilities relating to the securities market, the insurance market, and microfinance market. Including NBFIs, the FRC supervises over 400 financial institutions. Even though those institutions account for only 10% of financial sector assets, the FRC is somewhat overburdened. This is due to its young age and lack of sufficient resources, both in terms of staffing, expertise, and funding, "the FRC is a newer institution than the Bank of Mongolia and is still struggling with the implementation of systems, as well as staffing, budgeting, and establishing supervisory capabilities."[34]

An early crisis the FRC had to manage was the "imposition of the oversight of Savings and Credit Cooperatives (SCCs), [which] led to the failure of 32 SCCs, accounting for more than half the assets of the sector in 2006."[35] The agency then required all SCCs to reapply for operating licenses. NBFIs, in contrast, are reputed to be relatively stable financial institutions.

One area that the FRC could strengthen with regard to NBFI regulation is minimum capital requirement, which as of 2008, was, "increased to MNT 200 million to enlarge the fund base for operations and reduce the impact of risk assets on the viability of NBFIs."[36] Given potential HMF demand of MNT 236 billion, the minimum capital requirement should likely be higher, even once one accounts for the NBFIs' small HMF market share. Another issue that should be reviewed is the FRC requirements for loan loss reserves.

One issue identified by the Mongolian NBFI Association is that FRC rules state that NBFIs are only allowed to borrow funds from other financial institutions. However, since other financial institutions see NBFIs as competitors, they are effectively limited to equity to capitalize their operations.

The Ministry of Finance (MOF) is not involve in supervising lender operations. However, MOF is currently part of a consortium of government agencies that established the Housing Finance Corporation (HFC). This new entity launched an endeavor called the 40,000 Homes Program, whose goal is to provide affordable housing to government employees and low income residents. The program has been expanded and renamed the 100,000 Homes Program.[37]

Mongolia has enjoyed a high rate of penetration of financial services, which can be partially attributed to the success of microfinance. The largest microfinance providers are currently regulated, full service banks. Interestingly, regulations affecting the Mongolian microfinance industry have not differed from those that govern the overall financial industry. BOM's Nyamaa Togtokhbariul comments on the widespread success of microfinance:

> Mongolia's success without the existence of a specific enabling environment for microfinance seems to defy the on-going global trend of both developed and developing countries investing significant financial, institutional, and human resources into the creation of pro-poor financial sector enabling environments.

The author goes on to note that it might be prudent to consider regulations concerning, "diversification of financial services for the poor," amongst other key issues.[38] SBI's recommendations will address how the Government can help to enhance the enabling environment for microfinance.

Land Ownership

The "Land Allocation Law to the Mongolian Citizens for Ownership" of 2002 stipulates the land ownership rights of each citizen. This law stipulates three distinct land rights:

- Ownership: permanent, may only be granted to Mongolian citizens
- Possession: up to 60 years, with a possible extension, may be granted to citizens and joint ventures
- Land use: up to 5 years, with a possible extension, granted to foreigners

Between 80-99% of Ger Area residents either own their land or have possession rights. Each household has the right to 700 square meters in Ulaanbaatar, 3500 in each Aimag, or up to 5000 square meters in each Soum. The cadastral system for surveying land plots currently lacks administrative capacity. Cadastral law does not include procedures for property registration nor for managing boundary disputes.[39]

As noted before, this law was amended in 2008 to increase the land rights of Ulaanbaatar residents.[40] Having such laws in place has a positive effect on land tenure security in Mongolia, which as noted earlier has a positive effect on HMF demand. Since residents have institutionalized land rights, they are more likely to invest time and money in conducting home repairs.

As noted before, Mongolia has amongst the lowest population densities in the world. This implies that the supply of land is high. Likewise, land laws generously distribute land to citizens, which creates the high home ownership rates. This gives banks something to collateralize, and are in turn more willing to lend. However, the plentiful nature of land and the fact that it's not difficult to obtain exerts a downward pressure on land values. The lower values mean that collateralized loan sizes will be smaller. The plentiful supply means that the land is harder to sell because there are fewer buyers. Lenders thus have less confidence in the collateral. This is truer in rural areas, secondary cities, and the Fringe Ger Areas.

Property registration

The land registration and titling process is still developing and has recently benefited from development funding. The process has been criticized as unclear as "registration is done at the Administration of Land Affairs, Geodesy and Cartography (ALAGAG) while the local governors are responsible for issuing titles."[41] Another critique is that after 2008, as part of a recent system upgrade, residents must convert to a Decision to Own Certificate. However, this "requires that the land must be recorded on the cadastral map, which costs MNT 50,000."[42]

The *Doing Business in Mongolia* report notes that to "request and obtain land possession agreement and permission to build" takes only 15 days.[43] However, the head of a community organization based in a Fringe Ger Area explained to SBI that it can take up to 30 days to register in addition to an extra week to receive the certificate, and commented that the procedures were not clear to the average resident. While only 17% of Ger Area residents think the process cost too much, 69% thought the process was difficult, required too much paperwork or too much time.[44]

It is notable that there are several groups working with Ger Area residents "to improve their understanding of the titling and registration process so as to formalize their land rights."[45] It is also important to contextualize such critiques with Mongolia's high homeownership rates.

Foreclosure

The land ownership situation is promising for lenders seeking collateral to secure their loans. Changes to the Civil Code in 2001 form the foundation for lenders to enforce mortgages. According to MIK, this includes the following:[46]

- Article 368: Authorizes banks to possess the collateralized house or apartment in case of nonpayment without having to go through cumbersome court proceedings
- Article 120.1: States that owners of residential houses are entitled to possess, use, and dispose of their property at their discretion
- Article 75.3: States that owners may transfer their rights to others and the latter may possess, use or dispose of these properties

Nonetheless, over the years, banks lost confidence as court proceedings stretched on for up to three years. Lenders were often prevented from seizing land when it was the sole home of a resident, particularly in rural areas. MIK attributes this to, "an absence of laws providing appropriate enabling powers for banks to enforce loan collection."[47]

The State Great Khural recently revised the foreclosure laws to include a non-judicial foreclosure law. Lenders and other observers are optimistic that this will ameliorate the problem. However, with regard to HMF, many lenders still do not consider Ger Area and rural land as desirable collateral because of its illiquidity. Nonetheless, collateralizing one's home provides a psychological value based on the threat of losing one's most valuable possession. This should not be underestimated.

Meeting the Demand

Mongolian lenders will be better positioned to meet the demand for HMF by the adaptation of well designed loan programs, structured underwriting standards, risk mitigation policies and support from the BOM and Mongolian Government. The IFC's *Housing Microfinance Toolkit for Mongolia* provides an in-depth explanation of international best practices. This section, which draws upon the *Toolkit*, will introduce some of these practices and contextualize them for Mongolia. The section is subdivided into a discussion on Lenders, Funding, the Role of the Public Sector, and Industry-wide Initiatives. This section and the following section on next steps respond to many of the key challenges for HMF providers in Mongolia. The following summary list is based on the market assessment and feedback from the HMF training participants:

- **Funding**: NBFIs are in need of liquidity with maturities ranging from 4 to 7 years. Banks are faced with high cost of funds due in part to the current structure of current and demand accounts. Our analysis found little empirical data on time deposits.
- **Collateral**: Lenders rely heavily on immovable collateral, specifically land and residential structures when considering loan decisions. However, land values are low and the collateral is often illiquid as a result of lack of demand, the lack of an organized resale market, and an excess supply.
- **Capacity to repay**: Borrowers have relatively low capacity to repay HMF loans, and generally have very low and irregular income. This is especially challenging as many potential borrowers are self-employed or informal workers, and have difficulty providing proof of income and income sources.
- **Lack of NBFI regulations**: The FRC does not have capital adequacy or loan loss provision regulations in place for NBFIs. Such regulations protect the general public against inappropriate lending, which is important in Mongolia given the large number of NBFIs acting in the market.
- **Lack of Government and BOM support for HMF**: Many governments provide public subsidies for affordable housing. In Mongolia, the government supports the 40,000 and 100,000 Houses program. However, the government does not officially support HMF products or lenders, which would positively impact the provision of affordable housing.
- **Legal framework**: The existing title and land registration system is inadequate, and is exacerbated by the long judicial foreclosure process.
- **Construction cost and quality**: The quality of construction and lack of construction regulations is a challenge to ensuring the quality and durability of borrowers' home improvement projects. The price of construction materials is high and can fluctuate in response to market dynamics. Finally, the required knowledge of construction standards, costs and technical assistance increase the cost of the HMF product.

Lenders: Developing and Providing HMF

HMF Product Development and Delivery

HMF can broadly be divided into two types of services. First, stand-alone products are based on the borrower's current financial status such as current and demand deposits with the bank, rather than prior loan history with the lender. In contrast, linked products use prior lending history as an indicator of financial reliability. With linked products, borrowers can often access loans at lower interest rates than they pay for enterprise loans and the repayment period can be longer than for stand-alone products.

Most HMF is offered through the closed market approach, in which lenders offer loans to existing clients with a savings or credit track record. Lenders pre-qualify the loan based on reliable savings and repayment history, using the client's savings as a source of down payment and as a guarantee. Often, clients have to prove themselves capable of being a reliable borrower before they can become eligible for a HMF product by successfully repaying less risky and smaller loans.

This works well from a risk management perspective. However, "the reluctance to lend to clients new to the [financial] institution appears to be one of the critical barriers to scale."[48] Once fully operational, Mongolia's first private credit bureau, the Credit Information Bureau (CIB), will help lenders in making decisions regarding new clients by providing key credit information and may help HMF lenders make loans to borrowers who have little or no credit history. CIB is currently finalizing a strategic partnership with an international technical assistance provider.[49]

Developing Criteria for a Housing Microfinance Program

Housing microfinance has developed with certain definitive characteristics that highlight best practices and key challenges around the world. The following criteria have been employed and proven successful. It is highly recommended that some or all of the criteria be considered when developing HMF loan policies.

- **Nontraditional collateral** has expanded MFIs' ability to access underserved borrowers.[50] The use of alternative collateral mechanisms is a defining feature of the distinction between mortgage loans and HMF. A mortgage loan is collateralized by the property and land title. HMF loans are often unsecured or secured by alternative collateral such as current and demand accounts or guarantors, rather than property and land title. Underwriting policies should include non-traditional collateral for HMF products that are profitable and moderate in risk.
- **Differentiate HMF products:** Housing loan products should be segregated by defining features, including usage (such as home improvement, home completion, home build loans or home purchase loans), as described in the Toolkit. In addition, HMF products must be designed with flexible, seasonal terms which accommodate rural communities.
- **Client education:** Supplementary education should be conducted with trainings on basic financial management, such as budgets and the impact of loan terms and repayment obligations on household financial management. Complete customer understanding of repayment responsibilities is important to ensure repayment and lender transparency, particularly important in Mongolia given lower financial literacy rates in poor households. Further, housing design, materials purchase and management as well as construction techniques are paramount to successful building projects. HMF products should include bank employee guidance with varying levels of technical assistance, for construction managers, SME managers and servicing managers. Both client education and employee education have resulted in successful financial repayments.[51]

- **Fixed rates:** The use of fixed rates contributes to lender transparency and customer understanding, as described above.
- **Women borrowers:** Predominantly in Asia, MFIs have found that women are less risky borrowers and are better credit risks.
- **Individual loans:** Individual lending has proved more successful in ensuring repayment and in accurately calculating cash flow. In some cases, with extremely poor households, group lending has been successful.

It is important for institutions to understand the distinct set of risks associated with HMF versus other housing and microfinance loans, and these are discussed more thoroughly in the companion *Housing Microfinance Toolkit* document.

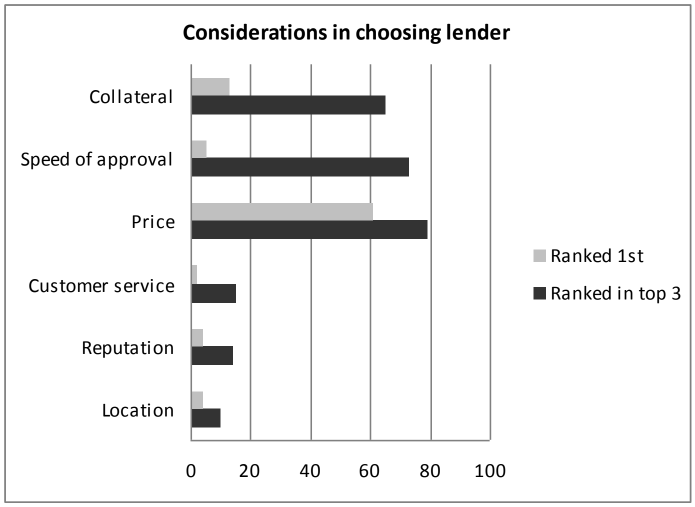
Establishing a housing loan product

Challenges arise as lenders transition to new products. Mongolia's low population density, limited access to capital, and high competition in the banking sector challenge banks to develop a large pool of customers to reach profitability and increase cost efficiencies for offering HMF loans. Lenders will need to enter the market with a proper strategic framework in place.

In many countries, for example, it is a challenge for microfinance institutions to shift from group loans to multi-purpose individual loans. Each step in the evolution of products requires the necessary internal tools to successfully launch and manage a new product. This might include MIS, product experts, leadership, and clear strategic vision.

The importance of market research in designing new products cannot be understated. SBI's client survey asked Ger Area residents to rank their top considerations in choosing a lender. The figure below shows that their top consideration in selecting a lender is the interest rate. However, low price is not usually a good foundation for a product strategy. It can favor larger lenders with deeper pockets. Charging a reasonable price at a few basis points over the cost of funds and designing a product that meets customer needs, such as seasonal or irregular payments may be a better starting point.

Figure 3. Top considerations in choosing a lender



It is important to note that collateral and speed of approval ranked in the top three considerations for choosing a lender. One key HMF best practice is using alternative collateral. The survey results imply that lenders that have more flexible collateral requirements will have a competitive advantage in the market. If a borrower has the capacity to repay a loan and the collateral value is problematic, lenders should consider alternative forms of credit enhancement, such as guarantees, cosigners, and movable property. One should not underestimate the psychological value of collateral, especially one's home. This will be particularly important in fringe ger areas and rural areas, where property values tend to be lower.

The other lesson is the importance of the speed of approval. This implies that lenders with efficient loan approval systems are also at an advantage. The latter point may favor NBFIs, which tend to be smaller than banks. Those that capitalize on their small size to decrease approval time, while maintaining the integrity of the approval process, may have an advantage.

Key considerations in HMF product development are discussed in detail in the Toolkit.

Meeting the Demand for Energy Efficiency Products

Enhancing energy efficiency saves clients money and boosts their capacity to repay not only the initial loan but also future loans. The UNDP market survey showed that Ger Area residents are aware of the importance of air pollution: 52% believe there is too much air pollution and 34% think it has reached a crisis level.[52]

XacBank developed a loan program for two products that enhance Ger Area energy efficiency. One is the GTZ 5th Generation Stove.[53] This product increases efficiency by improving warm air circulation and using a high insulation brick.

Table 16. Monthly Savings Calculation for GTZ Stove

GTZ 5th Generation Stove[54]						
Total Cost	*Interest*	*Monthly Payment*	*Fuel Expense w/ Stove*	*Fuel Expense w/o Stove*	*Fuel + Loan Payment*	*Monthly Savings*
₮152,000	17%	₮7,550	₮41,300	₮82,500	₮48,850	₮33,750

Using a XacBank loan, the stove will pay for itself in five months. Energy efficient stoves have been introduced to the Mongolian market in the past but have not been widely adopted. In general, critics suggested that in addition to heat, the stoves should provide households with the ability to cook and use available fuels.

XacBank also offers a product to promote the UNDP Ger Insulation Blanket. This product uses an improved design to keep warm air inside a ger for longer periods of time.

Table 17. Monthly Savings Calculation for UNDP Ger Insulation Blanket

UNDP Ger Insulation Blanket[55]						
Total Cost	*Interest*	*Monthly Payment*	*Fuel Expense w/ Blanket*	*Fuel Expense w/o Blanket*	*Fuel + Loan Payment*	*Monthly Savings*
₮550,000	17%	₮27,190	₮41,300	₮82,600	₮68,490	₮14,110

The case for the Ger Blanket is less compelling because the investment is higher, the monthly savings are lower, and the breakeven period is 14 months. Furthermore, the above figures represent only savings for the winter months, as households do not heat their gers during the summer. Nonetheless, both products are useful investments whose benefits extend well past the life of the loan. It would be useful to clients for lenders to link such products to general home improvement loans to meet all household home improvement needs with one convenient product.[56]

Energy efficiency projects are fairly popular. SBI's client survey revealed that 36% of respondents have completed repairs that improved the energy efficiency of the homes. Furthermore, 64% are currently planning to do energy efficiency improvements. Such improvements may include weatherproofing or replacing doors and windows, of which 51% of respondents have recently done.

Alternative Collateral

Mongolian lenders are strict about meeting immovable collateral requirements. However, one key lesson from the global microfinance industry is that lenders are most successful when they prioritize capacity to repay over collateral when underwriting low income borrowers. In Mongolia, land value in Ger Areas and rural areas are often low and there is not a significant market for the land, which makes it a relatively illiquid asset. When analyzed from a mortgage lending standpoint, such land makes for poor collateral. Borrowers are often rejected for loans when they have the capacity to repay because of insufficient collateral.

One way for lenders to expand HMF outreach and increase loan sizes is to using movable collateral, along with immovable collateral. Lenders should also consider developing an unsecured HMF product.

Loan Underwriting and Servicing Techniques

The *Housing Microfinance Toolkit for Mongolia* describes in greater detail the loan underwriting techniques suitable for HMF. In a nutshell, underwriting consists of a financial appraisal of the borrower's repayment capacity, a social appraisal, of the borrower's reputation, an evaluation of the technical details of each housing project, and an evaluation of the collateral. These are summarized in the table below.

Table 18. Underwriting components for HMF

Assessment	*Description*
Financial Appraisal	Assesses borrower's repayment capacity based on monthly loan installments. Repayment capacity should be based on current income, not future income as the home will likely not increase the borrower's earning capacity. Detailed household income information calculated from different sources; household expenditure details and monthly excess cash-flow or residual income; completed by Housing Loan Officer at client's location.
Social Appraisal	Assesses a client's social reputation. Completed by Loan Officer in the field. It may involve talking to the client's residential and business neighbors, suppliers, clients, community leader or religious head.
Technical Evaluation Form	Assesses the needs of the borrower vis-à-vis his/her repayment capacity. Consists of project technical details; completed by the Technical Engineer.
Collateral Evaluation	Assesses collateral value and confirms all necessary documentation.

Once a lender has underwritten, approved, and disbursed an HMF loan, loan servicing begins. This consists of the following:

- Loan Monitoring: Follow up on loan usage and repayment, paying special attention to diversion of funds for other use, outright fraud, and host of other risk management challenges.
- Delinquency Management: Delinquent borrowers cost lenders dearly, both in terms of money and corporate image. Good risk management involves a proactive system to prevent delinquencies. This involves an overarching philosophy that explains why it is of crucial importance, an effective management information system to help oversee the process, as well as key indicators that call attention to problematic accounts.

- Delinquent Loan Analysis and Solutions: Inevitably, some borrowers will become delinquent. Once a problem is identified, lenders should take immediate action and have clear procedures in place to manage this.
- Solutions for Default: Some borrowers will default, and lenders should, when appropriate, attempt to recoup funds by looking closely at a borrower's situation and making adjustments, such as modifying the terms of the loan to accommodate the borrower's cash flow.

Including Construction Technical Assistance after Funding

Another key HMF challenge is that borrowers often provide the construction planning and labor. While this can save the borrower money, it also carries risks for the lender. For example, accurate budgeting, project planning, and materials allocations are hard for an amateur builder to accurately determine. The ability of borrowers to project and manage costs should be a top concern for HMF lenders.

When using nonprofessional construction labor, the quality of the end product and therefore the value of the collateral, is uncertain. This is especially true with technical projects that involve systems such as electricity or plumbing. For example, electrical mistakes can lead to a range of problems in the future, such as improperly grounded systems which can lead to death or fires. Such problems could impact clients financially and reduce capacity to repay.

As a result of these challenges, many HMF lenders have developed a parallel product called Construction Technical Assistance (CTA), in which lenders provide technical assistance to borrowers with regard to the construction process. This can take various forms including reviewing budgets, assistance in project planning, or providing market information on supplies. In some cases, loan officers can help borrowers to downscale construction plans if they are rejected for a large loan. The goal of CTA is to add value to the client by strengthening their projects and reduce risk for the lender.

Lenders often include phased funding and construction monitoring as part of their CTA. HMF expert Franck Daphnis notes that, "If the MFI plans to offer no form of construction assistance, the housing microfinance loan is, in effect, a consumer loan whose declared purpose is housing but whose ultimate use is up to the client."[57]

Developing staff capacity to offer CTA is a challenge for new HMF lenders. HMF lenders have tried starting with someone with construction background and teaching him lending skills. Likewise, lenders have tried the opposite approach, and interestingly have met with more success. HMF lenders have also successfully partnered with an organization that specializes in housing or an architect. Lenders can use such partners to assist in underwriting larger or more complex loans. By using knowledgeable professionals to review project plans, lenders can steer clear of problems before loans are approved. There is obviously a cost associated with such technical assistance, but it is a valuable risk management tool that can avoid loan losses.

Insurance

Insurance is a nascent industry in Mongolia. This study did not cover current demand, market exposure, or capitalization of the insurance industry. The most commonly mentioned insurance product during interviews with lenders and borrowers was fire insurance. This subsection will identify several types of insurance which, when an insurance market develops in Mongolia, will facilitate the mortgage finance and HMF markets with risk mitigation or risk transfer.

Hazard Insurance: Hazard insurance covers damages or loss of use of collateral property caused by fire, flood, wind, lightning or other calamities. Hazard insurance protects both the borrower and the lender through the monetary reimbursement or replacement of a loss. Some mortgage lenders act as a broker for hazard insurance policies to provide convenience to the client and enhance revenue and profitability of the lender.

Best practice mortgage lenders require hazard insurance on collateral during the term of the loan. The insurance policy must be in effect as of the day the lender advances funds to the borrower and the lender registers its lien with the proper ministry. In addition, lenders often require borrowers to make monthly payment of 1/12 of the annual premium cost into an escrow account. On or before the renewal date of the policy, the lender contacts the insurance company to arrange payment. This practice assures the lender that the policy will be renewed on time and allows the lender to benefit from float.

Debt Cancellation Insurance: Usually found in developed markets, debt cancellation insurance is only used during the term of the loan and a claim may only be made by the lender if the borrower dies. Most debt cancellation policies have a declining benefit which means that the amount of a claim upon death is limited to the unpaid principal balance, thus, there are no benefits to the survivors of the borrower except elimination of the debt. In most cases, the borrower is far better served by a simple term life insurance policy with a fixed benefit. Term policies generally have a lower premium than debt cancellation policies.

Temporary Payment Relief Insurance: Like Debt Cancellation Insurance, Temporary Payment Relief Insurance (TPRI) exists in developed markets. TPRI provides the borrower and lender with assurance that, in the event the borrower cannot work due to a major injury, illness, or in some cases, unexpected job loss, regularly scheduled payments will be paid by the insurance company for a predetermined number of months, (usually 3-12 months).

Mortgage Insurance: Perhaps the single best tool in the mortgage industry is mortgage Insurance. Mortgage insurance provides benefit solely to the lender and/or investor holding the loan. In the event that the borrower defaults on the loan agreement and/or abandons the collateral, after the lender has conducted a judicial or non-judicial foreclosure, and when the lender sells the collateral, the lender may make a claim on the policy if there is a loss of principal.

Most mortgage insurance policies require the lender to take specific and thorough steps to mitigate the loss through aggressive collections and special servicing efforts. Benefits are capped (usually at 5-25% of the principal amount of the loan) to motivate the lender to adopt best underwriting practices and to obtain the highest possible price from the liquidation of the collateral.

Mortgage insurance premiums are most often priced at .125% to 1.00% of the unpaid balance of the loan and may include such variations as single premium, annual premium, and monthly premium options. Coverage is often kept in place until the unpaid principal balance of the loan is reduced to less than 70% of the appraised value. Mortgage insuring companies are likely to underwrite a loan a second time (after the lenders initial underwriting application). Further experience shows that some mortgage insurance companies will mitigate their risks by limiting exposure in geographic areas, market segments and by product type, such as fixed and variable rate loan products.

When considering the introduction of insurance products in a market place, initial premiums may be higher as a result of a small or immature risk and claim pool. Consequently, the cost of various lines may add a significant burden to the borrower which would result in a declined loan.

Administrative and Technical Capacity of Lenders

SBI's market survey showed that lenders possess the technical capacity to expand their product offerings into unsecured HMF. Where the HMF is unsecured, decentralized loan decisions and funding using standardized loan documents allow for seamless adaptation. However, properly underwriting long-term loans, documenting income, and effectively appraising the value of the underlying collateral are new skills for many lenders in Mongolia.

Commercial banks moving down market may face challenges in understanding the market segment or appropriate methods for underwriting low income borrowers. Lenders that are upscaling face challenges such as limited MIS capacity for moving to a more complex multi-product system and inexperience in managing longer term loans.

Assessing the skill levels of lender staff was beyond the scope of this assessment, and thus, more analysis will be required on the skills of branch managers, loan officers, and other staff. They may require additional training on key topics:

- Marketing techniques for micro loans
- Borrower prequalification
- Required disclosures to borrowers and guarantors
- Implementation and use of credit score cards
- Employing loan decision trees
- Underwriting
- Alternative underwriting applications and workarounds
- Risk and NPL management
- Loan collection techniques

With regard to IT, since the fundamental elements of microcredit are similar to other loan products, existing loan platforms may be expanded to accommodate the unique features of microcredit. The *Housing Microfinance Toolkit for Mongolia* covers many of the above topics in more detail.

Reaching scale is a key component of achieving profitability in HMF. However, in Mongolia the low population density creates a significant challenge in achieving scale, making the capacity of banks and the following funding discussion critical to the success of the product in the market.

Funding

The capacity for HMF growth is dependent upon access to medium to long-term capital. To reduce the effects of liquidity risk, an FI involved in HMF lending will need to be able to borrow funds at a comparable term to the lending term to avoid an maturity or interest rate mismatch. Unfortunately, affordable long-term loans are rarely available to FIs in developing markets, including Mongolia. A solution to the problem is the development of a liquidity facility which the current secondary market maker, MIK, could facilitate as it matures.

Banks and NBFIs will be the most effective delivery systems for HMF. Xac and Khan report a recovery in liquidity to over 40%, which means that capacity currently exists. NBFIs, however, must rely largely on equity. Thus, NBFI access to capital is paramount to growth and healthy competition.

The liquidity contraction experienced in 2007-09 was a warning to both banks and NBFIs that they will need to carefully manage their capital in all operations, but especially those that require long term investments. Potential solutions include selling portfolios to secondary market conduits, pensions, and corporate investors. Once MIK fully achieves its goal of developing a Mongolian secondary market for housing finance, the result will be much greater access to capital.

Deposits

One key benefit of banks as a delivery channel is their ability to mobilize deposits. Given a stable or rising deposit base, banks can access an excellent and affordable source of long-term funding. XacBank and Khan Bank did not identify funding as a problem with their HMF portfolios. This may be partly due to their diversified product offerings but also reflects their extensive deposit bases. On the other hand, NBFIs identified long-term funding as a key concern. At least one NBFI interviewed ceased their HMF operations, due to a capital to loan demand mismatch coupled with a subsequent unsuccessful capital raising effort.

Commercial Credit

Funding for NBFIs can come from commercial credit – or lending by banks from their deposit base to NBFIs. Mongolian banks have varying levels of exposure to the microfinance market, with XacBank and Khan Bank standing out with high levels. However, other Mongolian banks have the opportunity to explore increased exposure to HMF. Investing in an NBFI allows the bank to benefit from HMF, optimize their return on equity, and shift risk off its balance sheet. Access to credit will help NBFIs fund more HMF loans and reduce liquidity risk assuming that maturity is properly matched.

Some benefits to banks in capitalizing NBFIs for exposure to HMF are:

- NBFIs have developed a more efficient delivery system through sound relationship building.
- Housing loans have higher repayment rates, as reported during interviews with lenders.
- NBFIs specialize in microfinance loans and have experience with housing microfinance but their growth is constrained by funding

The problem with this idea is that banks see NBFIs as competitors, which is exacerbated by the fact that some banks are skeptical of NBFI's apparent high success rate. As financial institutions, technically they are competitors. However, banks tend to be much larger than NBFIs and serve different markets. The question is can a long-term partnership be crafted based on an understanding that the two lenders are serving different parts of the market.[58]

Providing an investment to an NBFI such as a line of credit allows the bank to benefit from HMF, optimize their return on equity, and shift risk off its balance sheet. This effectively diversifies the bank's loan portfolio, presuming the bank is not largely invested in microfinance. A credit line would allow the NBFI to draw down the loan as needed, and the maturity could be structured to address the asset-liability mismatch.

Since this prospect came up relatively late in our field work, we were unable to discuss it with banks that might be interested in such a partnership. The banks that we did talk to were already heavily invested in the microfinance market and would not benefit from the diversification potential of the arrangement.

Expanding the Availability of a Secondary Market Facility

MIK is emerging as a key player in the market for housing finance. MIK uses the following methodology to package and sell housing loans:

- MIK creates a bond secured by a pool of standardized mortgages
- MIK sells the bond back to the banks whose loans secured the bond
- The banks sell the bond to BOM

Thus far, "MIK has concluded five transactions, purchasing mortgages totaling MNT 4.1 billion using its own capital and retained earnings."[59] Most recently, it received approval from the Financial Regulatory Commission (FRC) in August 2009 to issue a bond for ₮25 billion.[60] In October 2009, MIK successfully executed the approach described above.

The BOM is trying to sell the bonds to private investors, but it has been unable to do so as many potential long-term, private investors are outside the country. For foreign investors, bonds issued in Tugrik (MNT) create substantial foreign exchange risks, especially given Mongolia's recent currency volatility. Potential domestic buyers within Mongolia include the State pension system and local insurance companies.

Since the BOM has been unable to sell the bonds to private investors, this program effectively "refinances" the mortgage loans with public funds. Nonetheless, it provides crucial liquidity for the market. Despite these challenges, MIK is interested in using a similar approach to refinance HMF loans, with recourse. Refinancing HMF loans will require standardization across the industry to create uniform cash flows and a financial instrument that is easier for investors to analyze.

Credit Enhancement

For the long term, the BOM can play a key role in generating funding for housing microfinance by guaranteeing bonds backed by HMF (also known as a credit enhancement). BOM can also guarantee the riskiest portion of each loan rather than the entire bond.[61] These guarantees, along with clearly defined standards for offering the guarantees, would send a strong signal to investors that these are quality financial products that adhere to international best practices and would reduce the risk inherent in such bonds, such as the foreign exchange risk. There is a stronger case for a guarantee provided by public institutions because of the role HMF loans play in poverty alleviation and slum upgrading.

The Dutch development bank, FMO, is in talks with MIK about a guarantee for mortgage-backed bonds. Given the need for a long term solution, FMO could consider partnering with BOM on an initial bond guarantee gradually reducing its involvement over time. There is also potential to involve the Millennium Challenge Account as part of a risk sharing or guarantee arrangement.

Foreign Currency Risk

Lenders issuing mortgage or HMF loans are reluctant to take on financing in foreign currencies. These products have longer loan terms, often from 5 – 15years and the foreign currency risk taken by a bank borrowing in a foreign currency is high. Some organizations are willing to mitigate a portion of the foreign currency risk, including:

- **MFX Solutions** has created tools and products to mitigate currency risk for the microfinance industry. As described on their website: “Our mission is to give microfinance lenders modern tools to analyze and manage their currency risk, enabling them to provide more funding, more safely, to poor entrepreneurs in the developing world. MFX has a specific focus on high risk markets such as Sub-Saharan Africa where mitigating currency risk can generate new lending to traditionally underserved populations.” Their products include cross currency swaps and forward contracts, assistance with documentation and processing to simplify and reduce the costs of hedging and decision-support tools and advice on currency risk decision-making.[1] MFX Solutions is relevant to individual institutions.

- **TCX Fund** is a special purpose fund providing market risk management products to investors active in emerging markets, focusing on currencies and maturities which are not covered by regular market providers. The Fund provides long-term local currency and interest rate derivatives. As of August 2009, the Fund held 32 currencies. TCX requires investors to invest equity amounts of a minimum of $5 million to participate.[1]

- **Guarantee funds:** Grameen Foundation has recently announced a fund that leverages the guarantees of high net worth individuals to leverage funding by local banks for microfinance institutions. USAID's Office of Development Credit Authority (DCA) provides partial credit guarantees to cover 50% of defaults on loans made by private financial institutions.[1] USAID's DCA office has recently partnered with Grameen to co-guarantee local microfinance investment transactions. This type of structure could be further explored for housing microfinance.

Pension Funds

Pension funds by definition have a long term investment horizon and large amounts of capital to invest. As such, they are an ideal source of investment for loan products with medium to long term maturities. In many economies, pension funds have provided a relatively safe and consistent return on investment, notwithstanding periods of economic expansion and contraction. Pension funds must manage the following cash flow risks:

- Changes in inflows for future pension beneficiaries
- Demands for payouts to pension beneficiaries
- Changes in investment policy

In Mongolia, the public pension system, which is operated by the Ministry of Social Welfare and Labor (MSWL), is the primary pension fund. Each year's payments fund that year's obligations. In 2005, the Asian Development Bank (ADB) estimated that pension obligations were under-funded by ₮200 billion, or about 7-8% of GDP. At that time, the gap was growing by ₮40-50 billion per year.[62] The system has undergone some capacity building since 2005 and it will be worthwhile to assess if this deficit is still extant and growing. More analysis will be required to determine if the pension fund is a suitable investment source. Another potential source of funding is insurance companies. However that may not prove to be feasible, given that this is a nascent industry.

The Role of the Public Sector

Housing is a key component to improving household livelihoods. As such, in most countries, the public sector plays a role in providing affordable housing. However, the government's role should be carefully considered. One challenge is designing solutions that are politically and economically sustainable.

It is also important to be aware of potential market distortions that can arise from public sector involvement. In some countries, governments or donors have implemented subsidy programs that have a positive effect on the affordability of housing finance products. However, such subsidies can disrupt the market by creating unsustainable low price expectations.

HMF Policy

As discussed in the sections on defining HMF, the Regulatory and Policy Environment, and in Next Steps below, the public sector should focus on developing pro-HMF policies. This includes defining HMF for the market and supporting NBFIs in providing the product.

Bank of Mongolia

As noted in the subsection on Funding, the Bank of Mongolia (BOM) has a special role to play in building Mongolia's secondary market, both for mortgage and HMF loans. The BOM should refinance HMF bonds, which will provide important liquidity to HMF lenders, especially NBFIs. In the long term, the BOM should consider guaranteeing the riskiest portion of each loan in the portfolio. By guaranteeing securitized HMF bonds, the BOM reduces the risk to investors and provides a signal to the market that it believes the bonds are high quality. For MIK to continue to provide securitization of mortgage loans, it needs private investors to buy the resulting bonds.

Financial Regulatory Commission

Given the potential role that NBFIs can play in the HMF market, the Financial Regulatory Commission (FRC) also has an important role to play. One key policy change that the FRC can make is to allow non-financial companies to lend money to NBFIs. This regulation creates long term funding problems for NBFIs, as banks often see them as competitors. The FRC should also take a closer look at its regulations involving capital adequacy and loan loss reserves to ensure they make sense for the NBFI sector and meet international standards.

Mining Funds

Leading up to the 2008 election, politicians promised to distribute a portion of mining profits to each citizen. The government subsequently designed a plan to give ₮1.5 million to each citizen starting in 2009. However, the government had not yet disbursed funds, as on June 2010. Some argue that these funds might be better spent on improving the country's economic competitiveness, with investments in public institutions such as schools.

Since promises have already been made to distribute the funds to citizens, XacBank has suggested that the government could encourage Ger Area improvements by providing an incentive to invest in one's home by providing an additional 10-20% for people who are willing to invest their mineral money as part of a down payment for home improvement.

Industry-Wide Initiatives

The Role of Community Based Organizations (CBOs) and Non-Governmental Organizations (NGOs)

A variety of types of institutions are involved in HMF. Around the world, loans are offered by the spectrum of financial institutions, from commercial banks to credit unions to MFIs. There is a larger spectrum of institutions that are involved in low-income home improvement and slum redevelopment, which play an important role in the success of HMF in a market.

Developing participatory models of home improvement and supporting local leaders can transform market participation and interest in HMF. For example, CODI (Community Organizations Development Institute) in Thailand is implementing the Thai government's national program for upgrading and secure tenure, and has brought together many different types of community organizations, including savings groups. Savings groups and community organizing has been a key component of HMF development in many parts of South and Southeast Asia, including India. SPARC, part of Shack/Slum Dwellers International, also organizes savings groups and participatory processes that include slum dwellers in urban development initiatives.

In Mongolia, HMF initiatives can be supported and supplemented by existing Ger Area organizing. The Urban Development Resource Center (UDRC) is a local NGO that is addressing the needs of Ger Area residents in a participatory fashion. By organizing community savings groups, UDRC helps residents mobilize the resources to improve their homes and neighborhoods. In so doing, residents are able to save money locally and also lend it out to group members who want to borrow. Funds are used for a range of products including home improvement as well as community infrastructure projects.

Public-private partnerships can be a successful way of including commercial banks and CBOs or NGOs in the HMF process. Habitat for Humanity is an international NGO that operates in Mongolia. It uses a familiar volunteer based model to build homes for low income Mongolians. XacBank has a partnership with Habitat to provide a CTA product for HMF clients. However, XacBank noted issues related to construction quality. As such, they are still in the process of refining the model.

Market Education

As found in most developed and developing markets, many Mongolians are not familiar with financial products, either how they work or their implications. Market education has proven important for the wide-spread acceptance of HMF products internationally. As expressed by lenders during interviews with SBI, there is a general lack of market knowledge in Mongolia about HMF products and their benefits.

Lenders, in partnership with NGOs and CBOs, can develop educational programs for delivery in Ger Areas and soums throughout Mongolia. Loan education programs can be used as a prerequisite for a loan requirements or as means of graduating clients to larger loans, and will be important for promoting specific types of loans, such as those targeting energy efficiency products. Some FIs have taken steps to improve financial education. For example, XacBank has successfully launched a program to teach primary school children to open and manage savings accounts.[63] A condition of the savings product is that withdrawals are not permitted until the age of 18. This type of long term savings account has the added benefit of developing long term savings accounts which can create funding for long term loans.[64]

In addition to initiatives led by FIs and NGOs, the local government and social workers could be powerful marketing and market education partners. Local government and politicians are closely tied to their communities and have a good sense of the market, the need for market education, and the best way of promoting curricula and disseminating information.

Financial education can also attract new customers. The UNDP market study found that 29% of Ger Area residents did not want to build a house because they feared becoming over-indebted.[65] Teaching financial management skills may help to alleviate this fear.

Key features of loan education programs are:

- Applicability to the users' environment: For example, a home finance workshop should focus on developing a household budget with focus on expense management and savings plans. Where the use of HMF may include a microenterprise, the emphasis should be on maintaining financial records in addition to the family budget.
- Benefit to the student: Without a carrot like the ability to take certain kinds of loans or a subsidized savings account, some financial education programs have difficulty attracting participants.

Next Steps

HMF lending has permanently changed communities throughout the world. Rural Areas and Ger Areas are the target markets for Mongolian lenders to fulfill a social commitment while building community goodwill. This document has established that there is significant demand for HMF loans in Mongolia which can be met by existing bank and non-bank financial institutions through the implementation of key best practices. This final section will summarize the recommendations and outline the institutions that SBI believes are best suited to take responsibility for implementing them. These recommendations identify key next steps in expanding HMF products. They present action items to:

- Improve the lenders' capacity and understanding of the product
- Meet critical funding needs for all HMF providers
- Develop an enabling regulatory environment to better support providers

Lenders

Banks are charged with managing not only the financial capital of a community, but also their trust. Banking institutions have a duty to serve all of the population from which they receive deposits and profits from their operations. Consequently, it is incumbent upon banks to develop longer term, lower rate savings products, such as retirement accounts, health care savings accounts, child education accounts where withdrawals are limited. Banks may use these longer term accounts to promote community access to capital by providing self-help, micro loans.

The innovative development of the Mongolian Mortgage Corporation (MIK) has made tremendous strides towards building a secondary market in Mongolia. MIK has a powerful vision for the role HMF can play in Mongolia. MIK is ready to take the lead in advocating for HMF, but faces similar capital challenges as do NBFIs. Banks therefore have a social obligation to purchase stock in MIK to help further the improvement of the Mongolian community. For these reasons, SBI recommends that MIK lead the effort to supported by efforts of the IFC and SBI to work with BOM and the government to encourage bank participation.

Uniform and Consistent Definition of HMF Products

As described in the section on Defining HMF, it will be important for policy makers, lenders and borrowers to have an established and standardized definition of HMF, which is outlined in the introduction. Creating uniform HMF products will make pooling and securitizing HMF debt easier and a more attractive product for external investment. As previously discussed, SBI recommends that MIK organize a group composed of industry leaders to the standardize features HMF loans.

Focus on NBFIs

Because of their success in microfinance, NBFIs have developed deep and long lasting relationships with their borrowers. Satisfied borrowers have helped promote NBFIs through word of mouth. The cost of keeping a customer happy is far less than the cost of developing a new relationship. Consequently, NBFIs are well situated to be the key delivery channel for HMF loans in Mongolia. The Mongolian NBFI Association expressed a strong interest in providing HMF loans and many of their members specialize in microfinance. On the whole, they have a better understanding of the target market and flexibility in lending procedures and requirements. However, in order to effectively offer these products, NBFIs will require capacity building initiatives, and should include technical assistance projects.

Provide Construction Technical Assistance

Providing a parallel Construction Technical Assistance (CTA) product will improve the risk profile of the HMF loans. CTA can take various forms including:

- Project planning and review
- Budget development
- Building techniques
- Building materials purchasing[66]
- Building safety
- Materials management
- Construction phasing

Each of the above will require participating lenders to locate or develop resources to accomplish the tasks. Many local and international communities have retirees with years of experience who volunteer their services. Proper utilization of these low cost resources reinforces the commitment that lenders have to their community.

Use Alternative Collateral

Mongolian lenders rely heavily on immovable collateral in part because of high homeownership rates, but also because they have less experience with other forms of collateral valuation and disposition experience. However, lenders around the world have shown that HMF works well as both a secured and unsecured loan product.

Since collateral is not a prohibitive factor in providing HMF, Mongolian lenders should take collateral when it is available. However, if a borrower has the capacity to repay a loan and the collateral value is too low, lenders should consider alternative forms of credit enhancement, such as guarantees, cosigners, and movable property.

As noted, Mongolian lenders rely heavily on collateral in underwriting not only HMF but nearly all loans. This is due in part to the country's high homeownership rates, which gives lenders something to collateralize in nearly every case. Thus, this approach is deeply ingrained in the Mongolian financial sector. The IFC should consider providing technical assistance to one or more lenders that are enthusiastic about providing "alternative collateral" based loans.

SWOT Analysis:
The IFC should provide technical assistance to lenders interested lending based on alternative collateral.

Strengths	*Weaknesses*
• Allows lenders to provide loans to otherwise qualified borrowers	• Difficult to change the culture of collateral-based underwriting that runs deep in the Mongolian financial sector
• Allows lenders to provider larger loans to qualified borrowers who accepted reduced loan sizes due to insufficient collateral	
Opportunities	*Threats*
• Lenders will expand their markets, enhancing both profits and social impact	• Nonstandard collateral requirements may look strange to private investors used to traditional housing finance
	• Loans backed by movable collateral may be even more difficult to liquidate, if loans go bad

Cross Selling

Corporate profits are enhanced by extending additional products and services to existing clients. Banks and NBFIs have a tremendous opportunity to communicate with their borrowers each month when the borrowers make loan payments. During this opportune time lenders should cross sell HMF loans with other products. The availability and use of microcredit allows borrowers to develop credit history. Further, microcredit allows lenders to develop statistical and behavioral data to help the lender develop a better model to evaluate the market. One potential area for promoting cross selling of HMF products is with XacBank's existing energy efficiency products.

Develop Insurance Products

As the financial services markets mature, insurance products become more viable. Certainly any newly created insurance company will face capitalization issues which will require insurance companies to secure reinsurance from external companies. When developed insurance products, such as life, debt cancellation and mortgage insurance that would enhance the HMF market.. There is anecdotal evidence that Mongolian lenders have begun to work with insurance companies to develop these products. Once implemented, such insurance will make MIK's bonds more attractive to private investors. It would be instructive to investigate the feasibility of these products for insurance companies.

Partner with Community Organizations and Suppliers

NGOs provide lenders a unique opportunity to promote FIs' products and to conduct financial management or home finance workshops. CBOs and NGOs can be key partners in engaging the larger community and reaching underserved populations. Workshops could cover financial management, energy efficiency, construction supply and material pricing, construction project planning workshops.

Suppliers and developers should be leveraged by FIs through partnerships and arrangements. Partnering with suppliers and developers, a strategy initiated by a few financial institutions including XacBank, will effectively link existing housing development initiatives with required funding. In terms of promoting energy efficiency, developer expertise will be critical to the success of the projects. Developers and suppliers can also help reduce costs to the financial institutions: partnerships with suppliers can result in access to lower-cost materials and developers can ensure higher quality products and can potentially provide construction technical assistance to borrowers.

Build Lender Institutional Capacity

As lenders have expanded their HMF portfolios, they have sensibly focused urban markets. However, at some point, more lenders will turn their attention to rural HMF. As they expand, it would be wise to pay special attention to building their institutional capacity to provide rural loans. Such expansion requires paying special attention to staff training, as well as strengthening operations systems. The IFC should provide technical assistance to lenders that are interested in building their institutional capacity and expanding rural operations. As this effort takes shape, in determining which lenders on which to focus, it would be wise to focus on institutional readiness.

SWOT Analysis: *The IFC should provide technical assistance to lenders interested in expanding lending operations to rural areas.*	
Strengths	*Weaknesses*
• Many lenders need assistance in with institutional capacity building	• This is a costly activity that lenders may be unable to afford without technical assistance.
• Some lenders to have experience with rural lending, but need to refine it as a core competence	
Opportunities	*Threats*
• The social impact in reaching rural areas would be high.	• Low population areas may not profitable for lending operations
• Fewer lenders work in rural areas and thus competition will not be as tough as in Ulaanbaatar.	

Develop Construction Resource Centers

The development of construction resource centers ties together the previous two recommendations – improving lender capacity and partnering with developers and suppliers. Construction resource centers would provide expertise in construction issues to financial institutions. This would allow financial institutions to pool aspects of the operational costs associated with financing construction projects and access critical information in launching and expanding their HMF business line. These centers could provide information on construction technical assistance, cost of construction projects and materials, appraisal techniques and energy efficiency projects. The centers could be funded by financial institutions, suppliers, government, or a combination of sources.

Funding

The funding element is a critical aspect for all lenders interest in HMF, in terms of duration and cost of available funding .

HMF Liquidity Facility

MIK is ready to prepare a liquidity facility for HMF loans. To develop a strong fund, it must plan to meet the challenges presented by the lack of long term investors. To accomplish this task, SBI recommends developing a work group to address important issues such as standardized loan documents and loan terms, including maturities and payment options.

The IFC should play a lead role in funding and mobilizing such a facility. Beginning with IFC-funded seed money, lenders could choose to invest in the fund, borrow from it, or both. Along with MIK, IFC should start a discussion with the Mongolian financial sector on how to reach target capital levels.

After lenders have created a portfolio of performing loans, the liquidity facility can be further enhanced through the issuance of collateralized debt obligations, with repurchase agreements or similar securities. While exchange rate risks for foreign investors exist, the government can make HMF bonds tax exempt which would enhance bond yields and may offset potential exchange risks. Borrower prepayments, and the public perception of Mongolia as high or unknown risk can be overcome with other credit enhancements discussed below.

SWOT Analysis: *The IFC should partner with MIK in funding and mobilizing a liquidity facility for housing microfinance.*	
Strengths	*Weaknesses*
• Many HMF lenders are plagued by funding issues	• Will require seed money
• Facility requirements could help establish loan standards that enhance profitability	• This will take time to mobilize and design
• Would allow many lenders to increase the maturity of their HMF loans	•
Opportunities	*Threats*
• Adds to the capacity of the emerging Mongolian secondary market	• MIK has grown rapidly in recent years. Its leadership should ask itself if it is ready for more expansion, and if so, how can it best manage it.
• Longer term funding makes HMF more affordable which increases market potential	
• Provides an opportunity for banks that invest in such a facility to spread risk their risk	

Credit Enhancements

In the short term, MIK should work with lenders to refinance HMF loans with recourse through bond offerings, similar to what it has done with mortgage loans. While such bonds have yet to be sold to private investors, MIK is optimistic that in the medium or long term the Bank of Mongolia (BOM) will be able to sell them in the future. To encourage investment, BOM in conjunction with IFC and potentially FMO, can offer credit enhancements, such as principal or yield guarantees. The guarantees could be structured to cover this riskiest portion of each loan.

SWOT Analysis: *The IFC should partner with BOM in offering credit enhancements for HMF bonds.*	
Strengths	*Weaknesses*
• Makes bonds more attractive to investors by reducing risk	• BOM fees are needed to offset guarantee expense
• BOM fees make the enhancements more financially feasible	• Fees would make HMF less affordable
• Would allow many lenders to increase the maturity of their HMF loans	
Opportunities	*Threats*
• MIK is already in discussions with FMO to provide a guarantee for their mortgage bonds	• HMF bonds may compete with mortgage bonds for investors
• Could be done in partnership with BOM with the idea that BOM will do it independently in the future	
• Would create new investment product at a new risk/return level	

In addition, the Millennium Challenge Account may be in a position to provide credit enhancements in the form of a guarantee or risk sharing mechanism.

Banks Partner with NBFIs

Mongolian banks can realize additional profits if they engage in partnerships and joint ventures with NBFIs that specialize in such loans. This will optimize return on equity while shifting risk off of the balance sheet. NBFIs' access to capital through collateralized obligations will create an environment that benefits the community, the bank, and the NBFI. Such partnerships will increase the supply of HMF by addressing key funding issues that are holding NBFIs back from entering the market more vigorously.

Regulation and Policy

Educate Government Officials and Lenders

Not all government officials are familiar with HMF products. Without the government support credit enhancements and regulatory policy changes will not occur. This should include all levels of government, including local government officials who are close to the target market and can play an important role in consumer education and marketing. Our research indicates that lenders are optimistic about this market segment not only because it is large, but because the borrowers have demonstrated a high rate of loan performance.

Using this market knowledge, MIK and other HMF lenders should launch an education campaign aimed at BOM and other government officials. As such, MIK, along with its shareholders, should consider organizing a "housing microfinance summit," which brings together lenders and officials, presents key data, and highlights various borrowers and projects. Education is also important for lenders, who will benefit from the market assessment, as well as the *Housing Microfinance Toolkit for Mongolia* and staff training. SBI will play central roles in designing the *Toolkit* and conducting the training.

Produce Pro-HMF Regulations

At this time the Mongolian Government does not regulate microfinance any differently than it regulates other financial institutions. Nonetheless, given the potential for HMF, support may help to develop the market. The Central Bank of the Philippines recently developed a program that defines the product, allows lenders to participate in the program, and provides subsidies. If structured to avoid market distortions, such a program could significantly help develop the HMF market in Mongolia.

The State Great Khural and the Financial Regulatory Commission (FRC) should change the law in order to allow NBFIs to borrow from non-financial institutions. Improving the funding situation for NBFIs will create a more competitive and dynamic HMF marketplace. The Mongolian NBFI Association is currently discussing this option with the FRC. This will benefit HMF, since many NBFIs gravitate towards the low-income market segment.

There are other ways in which the Government can support HMF (discussed above). One is to make low cost, long term funding available to lenders and restrict the use to HMF. This would help to solve the borrower problem of capacity to repay, as well as lender problems related to lack of funding and asset-liability mismatch. However, introducing subsidies into private markets can create problems if they distort the markets. For example, subsidizing HMF but not microenterprise loans will decrease demand for the latter, if the interest rate is less. This will provide an incentive for borrowers to pay for business investments with housing loans.

Educate Public about Energy Efficiency

The value proposition for energy efficiency products in individual households is high: energy efficiency products can reduce the cost of heating gers. This can not only help Ger Area residents pay for loans, but also permanently boost household available cash. However, even though effective products have existed for several years, they have not gained in popularity. A public education campaign highlighting the financial benefits along with appropriate financing products of such products may help to convince people to use energy efficient products. This campaign can include a partnership between suppliers, financial institutions and local government.

IFC Role

The International Finance Corporation (IFC) has correctly identified that housing microfinance can play an important role in Mongolia. Not only is there high demand and willing suppliers, but this loan product also plays a key economic role by providing loans to low income people for housing improvement.

Such a product, provided by the private sector with a high social impact is well suited for the IFC's mission. Thus, this paper has identified some key roles that the IFC can play helping lenders to reach their HMF goals. Those include:

- Guarantee HMF bonds
- Provide funding for liquidity facility
- Provide technical assistance for lender expansion into rural areas
- Provide technical assistance in develop an uncollateralized HMF product

While there may be additional roles in which IFC can be involved, these four action items will have a high impact on the future of the Mongolian housing finance sector.

Appendix 1: Sample Home Improvement Loan (HIL)

Feature	Description
Loan Purpose	HIL may be used to finance repairs, weatherproofing, extensions, upgrades or connections to basic utilities such as water, sewage, electricity and solar power.
Eligible Property	The house should be the borrower's primary residential property.
Eligible Borrowers	Only natural persons are eligible to borrow. Enterprises or corporations are not eligible to borrow. Borrowers shall be business persons, salaried employees, and pensioners.
Loan Amount[67]	Loan amounts range from ₮ 500,000 to ₮ 10,000,000. Actual loan amounts will be based on estimated project cost and repayment capacity of the applicant.
Two Concurrent Loans (Business and Housing)	A client may have two loans but the outstanding balance of combined loans should not exceed the maximum loan size for microfinance loans. The debt ratio and repayment capacity of combined loans should be within acceptable limits of the financial institution.
Debt to Income Ratio	Up to 40%
Savings	The financial institution will define its policy and procedures on savings within the confines of regulatory requirements.
Collateral Requirements	The loan may be secured by titled property, buildings, gers, guarantors, compulsory savings or real guarantees. Collateral requirements may vary depending on loan size.
Cost Share Plan (Down payment)	The loan amount may not exceed 80% of the estimated project cost. The borrower's contribution of at least 20% may be in the form of cash, materials or labor (sweat equity).
Loan Term (Duration)[68]	Minimum period of 3 months and maximum of 24 months.
Interest Rate	2.3% per month on a declining[69] basis
Administration Fee	2% of the loan amount at disbursement[70]
Loan Disbursement	The loan will be disbursed in two tranches. The second tranche will be disbursed after verification of works on the first disbursement.[71]
Repayment Frequency	Monthly[72]
Penalties	Late payments will be subject to a penalty of 20% of the monthly interest rate applied to the remaining principle.
Prepayment of Loan	Borrower who has repaid at least three months' installments may repay the full remaining unpaid principal balance and any unpaid interest, without penalty.
Other Conditions	A couple may apply for a loan, in which case the spouse serves as co-borrower. In the case of co-borrowers, financial information of both borrowers will be used in determining repayment capacity for the loan. If a spouse does not serve as a co-borrower, he/she must execute a legal agreement waiving any right to block foreclosure in the event of loan default by the borrower. The client shall provide an undertaking committing not to dispose

	off or sell the house without prior permission in writing from the MFI.

Appendix 2: Sample Home Build Loan

Feature	***Description***
Loan Purpose	HBL finances incremental construction of houses, and can also include the purchase of a piece of land prior to construction
Eligible Property	The house should be the borrower's primary residential property.
Eligible Borrowers	Only natural persons are eligible to borrow. Enterprises or corporations are not eligible to borrow under this product. Borrowers shall be business persons, salaried employees, and pensioners.
Loan Amount[73]	Amounts range from ₮ 1,000,000 to ₮ 20,000,000. Actual loan amounts reflect estimated project cost and repayment capacity of the applicant.
Two Concurrent Loans (Business and Housing)	A client may have two loans but the outstanding balance of combined loans should not exceed the maximum loan size for microfinance loans. The debt ratio and repayment capacity of the combined loans should be within acceptable limits of the financial institution.
Debt to Income Ratio	Up to 40%
Savings	The financial institution will define its policy and procedures on savings within the confines of regulatory requirements.
Collateral Requirements	The loan may be secured by titled property, buildings, gers, guarantors, compulsory savings or real guarantees, where possible. Collateral requirement may vary depending on loan size.
Cost Share Plan (Down payment)	The loan amount may not exceed 80% of the estimated project cost. Borrower's contribution of at least 20% may be in the form of cash, materials or labor (sweat equity).
Loan Term (Duration)	Minimum period of 12 months and maximum of 24 months.
Interest Rate	3% per month on a (declining or straight) basis.
Administration Fee	2% of the loan amount at disbursement.
Loan Disbursement	The loan will be disbursed in two tranches. The second tranche will be disbursed after verification of works on the first disbursement.
Repayment Frequency	Monthly, quarterly, seasonally
Penalties	Late payments will be subject to a penalty of 20% of the monthly interest rate applied to the remaining principle.
Prepayment of Loan	Borrower who has repaid at least three months' installments may repay the full remaining unpaid principal balance and any unpaid interest, without penalty.
Other Conditions	A couple may apply for a loan, in which case the spouse serves as co-borrower. In the case of co-borrowers, financial information of both borrowers will be used in determining repayment capacity for the loan. If a spouse does not serve as a co-borrower, he/she must

	execute a legal agreement waiving any right to block foreclosure in the event of loan default by the borrower. The client shall provide an undertaking committing not to dispose off or sell the house without prior permission in writing from the MFI.

Appendix 3: Sample Home Purchase Loan (HPL)

Feature	*Description*
Loan Purpose	HPL finances the purchase of an existing house.
Eligible Property	The house should be the borrower's primary residential property.
Eligible Borrowers	Only natural persons are eligible to borrow. Enterprises or corporations are not eligible to borrow under this product. Borrowers shall be business persons, salaried employees, and pensioners.
Loan Amount[74]	Amounts range from ₮ 1,000,000 to ₮ 20,000,000. Actual loan amounts reflect estimated property cost and repayment capacity of the applicant.
Two Concurrent Loans (Business and Housing)	A client may have two loans but the outstanding balance of combined loans should not exceed the maximum loan size for microfinance loans. The debt ratio and repayment capacity of the combined loans should be within acceptable limits of the financial institution.
Savings	The financial institution will define its policy and procedures on savings within the confines of regulatory requirements.
Debt to Income Ratio	Up to 40%
Collateral Requirements	The loan will be secured by titled property. The house bought may be used as collateral. Additional collateral requirements such as co-signers may be required.
Cost Share Plan (Down payment)	The loan amount may not exceed 80% of the forced sale value of the property to be purchased.
Loan Term (Duration)	Minimum period of 12 months and maximum of 36 months
Interest Rate[75]	2.5% per month on declining basis
Administration Fee	2% of the loan amount at disbursement
Loan Disbursement	The loan will be disbursed in a single tranche directly to the seller.[76]
Repayment Frequency	Monthly, quarterly, seasonally
Penalties	Late payments will be subject to a penalty of 20% of the monthly interest rate applied to the remaining principle.
Prepayment of Loan	Borrower who has repaid at least three months' installments may repay the full remaining unpaid principal balance and any unpaid interest, without penalty.
Other Conditions	A couple may apply for a loan, in which case the spouse serves as co-borrower. In the case of co-borrowers, financial information of both borrowers will be used in determining repayment capacity for the loan. If a spouse does not serve as a co-borrower, he/she must execute a legal agreement waiving any right to block foreclosure in the event of loan default by the borrower. The client shall provide an undertaking committing not to dispose off or sell the house without prior permission in writing from the MFI.

Appendix 4: Home Improvement Loan for Groups

Feature	*Description*
Loan Purpose	HIL for Groups may be used to finance repairs, extensions, upgrades or connections to basic utilities such as water, sewage, electricity and solar power.
Eligible Property	The house should be the borrowers' primary residential property.
Eligible Borrowers	The target clients are groups, rather than individual borrowers. The group size can vary. Small groups are 3-5 members in urban areas. Groups tend to be larger in a rural communities or women's organization. Additional criteria might include: • Citizen who is a local resident and domiciled in the area covered by the MFI • Homeowner with title • Has a regular income from salary, business, remittances, pension, rent, etc. • Active member of the MFI group or community organization • Good credit history with individual or group loans (with MFIs, suppliers, etc)
Group Composition	Group composition should consist of: • Members from the same neighborhood • Self selected membership and on voluntary basis • Members must know, trust and be willing to take responsibility for each other and assume the loan repayment for all members • Blood relatives are not allowed to be members in the same group
Loan Amount	Amounts range from ₮200,000 to ₮5,000,000. Actual loan amounts will be based on estimated project cost and repayment capacity of the applicant, as guaranteed by the group.
Two Concurrent Loans (Business and Housing)	A client may have two loans but the outstanding balance of combined loans should not exceed the maximum loan size for microfinance loans. The debt ratio and repayment capacity of combined loans should be within acceptable limits of the financial institution.
Debt to Income Ratio	Up to 40%
Savings	The financial institution will define its policy and procedures on savings within the confines of regulatory requirements.
Collateral Requirements	The loans are secured by the group guarantee. Each member is responsible of paying his/her own loan as well as the loans of the other members of the group. Compulsory savings or other forms of collateral may be required. Collateral requirements may vary depending on loan size.
Cost Share Plan (Down payment)	The loan amount may not exceed 80% of the estimated project cost. The borrower's contribution of at least 20% may be in the form of cash, materials or labor (sweat equity).
Loan Term (Duration)	Minimum period of 6 months and maximum of 36 months[77]
Interest Rate	2.3% per annum on a declining basis
Administration Fee	2% of the loan amount at disbursement
Loan Disbursement	The loan disbursement will be scheduled for the entire group or each member of the group after completing all the legal documents and securing signatures. All loan disbursements that are less than ₮X,000,000 shall be made in favor of each client through a crossed

	check in compliance with the MFI's loan disbursement procedures. For loans above ₮X,000,000 the loans will be disbursed using a combination of vouchers for materials and cash to for labor costs. The voucher will contain the list of materials, quantities and prices based on the available agreement with the material supplier covering the area where the client is located.
Repayment Frequency	Monthly
Penalties	Late payments will be subject to a penalty of 20% of the monthly interest rate applied to the remaining principle.
Prepayment of Loan	Borrower who has repaid at least three months' installments may repay the full remaining unpaid principal balance and any unpaid interest, without penalty.

Appendix 5: HMF Training Participant List

	Name	Organization	Position
1	B.Gannasan	State Bank	Risk Manager
2	A.Nyamsuren	Golomt bank	Senior officer
3	D.Jargalmaa	Golomt bank	Senior officer
4	E.Undarmaa	Golomt bank	Manager
5	B.Zolboo	Golomt bank	Product Manager
6	T.Odmaa	Landdorf Finance NBFI	CEO
7	B.Munkhtuya	Landdorf Finance NBFI	Credit Officer
8	A.Jamianjav	Energy Resourse LLS	Financial Analyst
9	A.Budee	Capitron Bank	Director
10	E.Javkhlan	Teewer hogjliin bank	economist
11	M.Tumen-Ulzii	VisionFund NBFI	Branch manager
12	B.Tsendsuren	VisionFund NBFI	Operation coordinator
13	B.Otgontungalag	VisionFund NBFI	Chief accountant
14	B.Altanbayar	MIBG Co / a Member of FSCo /	Head of the department
15	L.Boldbaatar	UNDP/ Building Energy Efficiency Project	Officer for finance
16	T. Bulganbaatar	TDB	Senior account manager
17	Kh.Amgalanbaatar	TDB	Senior account manager
18	B.Otgonbayar	TDB	Product Manager
19	G.Nomin	Creditmongol MBFI	Loan officer
20	MNyamsuren	Creditmongol MBFI	Loan officer
21	N.Oyuntsetseg	Transcapital MBFI	Cheief credit officer
22	M.Oyungerel	Transcapital MBFI	Loan officer
23	Ts.Uuganbayar	Transcapital MBFI	Intern
24	S.Uuganbayar	Transcapital MBFI	Loan officer
25	T.Solongo	Xacbank	Officer
26	H.Enkhtuya	Xacbank	Risk analyst
27	Shirchmaa	Xacbank	Senior Officer
28	E.Lhavgatsend	Xacbank	Customer Officer
29	N. Janchivsengee	Xacbank	Customer Officer
30	A.Oyuntungalag	Xacbank	Customer Officer
31	B.Oyungerel	Xacbank	Director/ Mortgage Banking Department
32	Dashtseren	Master Properties MBFI	Director

33	E.Gantulga	General Finance MBFI	Loan Officer
34	N.Budbayar	General FinanceMBFI	CEO
35	B.Dulabtseren	Moneypost NBFI	CEO
36	Ch.Narangerel	Moneypost NBFI	Accountant
37	A.Gerelmaa	Capital Bank	Director of loan department
38	B.Ganbaatar	Capital Bank	Director of Risk Department
39	I.Tuvdendorj	Capital Bank	Economist of Loan department
40	E.Ikhbayar	Capital Bank	Law Officer
41	Bayanjargal	State bank	Manager
42	James France	KFW	Consultant
43	Enkhtsetseg	KFW	Banking Expert
45	D.Udval	Newfund NBFI	CEO
46	M.Tuvshinjargal	Newfund NBFI	Loan Officer
47	Munkhbayar	UNDP/ Building Energy Efficiency Project	National Project manager

Appendix 6: HMF Training Agenda

MicroHousing Training

ShoreBank International, MIK and IFC

Ulaanbaatar, Mongolia

October 14 and 15, 2010

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<tr><td rowspan="4">Session 1. Introduction to training and workshop context</td><td>Introduction of trainers</td></tr>
<tr><td>Introduction on low-income housing in Mongolia (MIK)</td></tr>
<tr><td>Introduction to Housing Microfinance Toolkit (SBI, IFC)</td></tr>
<tr><td>Key market assessment findings</td></tr>
<tr><td rowspan="4">Session 2. Introduction to Housing Microfinance</td><td>What is housing microfinance? How is housing microfinance discrete from a microfinance, business and housing loan?
Housing microfinance in the context of microfinance and housing finance</td></tr>
<tr><td>Why housing microfinance? Market segmentation and customer profile</td></tr>
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<tr><td rowspan="2">Session 3. Loan Process Overview</td><td>Loan officer responsibilities</td></tr>
<tr><td>The loan process
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• Loan Committee Meeting and loan approval
• Loan Disbursement
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<tr><td colspan="2">LUNCH BREAK</td></tr>
<tr><td rowspan="2">Session 4. Marketing HMF</td><td>Understanding the customer</td></tr>
<tr><td>Marketing HMF loans and products</td></tr>
</table>

	Alternative sales mechanisms – cross-selling
Session 5. Loan Appraisal	Repayment Capacity
	Willingness to pay
	Technical Appraisal
	Collateral Valuation

DAY IIA – FINANCIAL TRAINING	
Session 6. Loan Approval, Disbursement and Monitoring	Loan Approval - Loan Committee meeting preparation, approval guidelines, policies and procedures
	Loan Disbursement – staff responsibilities and loan contract
	Loan Monitoring – roles and responsibilities, causes of late payments and problem loans, problem loan solutions
DAY IIB – TECHNICAL ASSISTANCE TRAINING	
Session 7. Introduction to Construction Technical Assistance	Objectives of Technical Assistance
	Types of loans that require Technical Assistance
	Role of Technical Assistance in housing microfinance
Session 8. Structural Terms in CTA	Overview of commonly used structural terms
LUNCH BREAK	
Session 9. Providing Technical Assistance	Determining proposed improvements
	Sketching proposed improvements
	Types of improvements
	Verifying Project Cost
Session 10. Risk Assessment and Warning Signs	Risk Assessment
	Warning signs and red flags
	Monitoring
Session 11. Conclusion	Challenges in scaling the product in Mongolia
	Next steps and opportunities

End Notes

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[1] http://www.bsp.gov.ph/regulations/regulations.asp?type=1&id=2490

[2] Khan Bank only provided estimates for their overall mortgage portfolio and percentage that is housing improvement.

[3] The average loan size does not include Khan Bank loans.

[4] Kamata, Takuya, et al., *Mongolia: Enhancing Policies and Practices for Ger Area Development in Ulaanbaatar*, World Bank, 2010.

[5] Ibid

[6] Ibid

[7] D. Bum-Erdene, *Market Survey of Energy Efficient Building*, UNDP Mongolia, 2010.

[8] Ibid

[9] Ibid

[10] Kamata, Takuya, et al., *Mongolia: Enhancing Policies and Practices for Ger Area Development in Ulaanbaatar*, World Bank, 2010.

[11] Kamata, Takuya, et al., *Mongolia: Enhancing Policies and Practices for Ger Area Development in Ulaanbaatar*, World Bank, 2010.

[12] The figures represent relatively favorable terms for a XacBank loan. We used favorable terms to illustrate that affordability is problematic.

[13] Daphnis, Franck "Elements of Product Design for Housing Microfinance," Draft, Jan 2003.

[14] There are also 340-400 operational savings and credit cooperatives that primarily serve rural areas. This sector is currently regrouping due to series of scandals.

[15] When we discuss Nonperforming Loans (NPLs) is the paper, we use the international standard of those loans that are 90 days past due.

[16] Nonetheless, profitability requires further study. An ACCION study noted that in order to accurately assess HMF profitability, lenders "need to adjust financial systems to track segregated information by product. Until this happens, perceptions of HMF profitability will remain speculative." The lack of information on HMF portfolios is due at least party to the fact that HMF loans are often blended in with both consumer loans and business loan portfolios. There is insufficient information on the cost of production, booking, hedging and servicing HMF loans. Such data is necessary to determine the return on assets that the HMF product will add to the lenders net operating income. This is a problem for lenders around the world when assessing HMF product offerings. Data aggregators such as MIX Market have expressed an interest in tracking HMF products but have not done so yet.

[17] http://www.nationmaster.com/country/mg-mongolia/geo-geography

[18] Habitat for Humanity Report, Public Document, Bankable Frontier Associates, 2009

[19] The calculation assumes that there is one borrower per household.

[20] Estimates of the percentage of the population served by formal mortgage lenders in developing countries vary. In Bangladesh, only the top 10th percentile of the urban income distribution is served by traditional housing finance. http://housingfinance.wharton.upenn.edu/Documents/bareport2.pdf

[21] Ferguson estimates that less than 30% of households in most emerging countries can afford a mortgage loan to purchase the least expensive, developer-built unit. Kecia Rust

[22] National Statistical Office, *Statistical Yearbook*, National Statistical Office of Mongolia, 2010.

[23] Country Summary of Mongolia, World Bank, 2009

[24] Mesarina, Nino, Stickney, Christy, *Getting to Scale in Housing Microfinance: A Study of ACCION Partners in Latin America*, ACCION InSight Number 21, May 2007.

[25] National Statistical Office, *Statistical Yearbook*, National Statistical Office of Mongolia, 2010.

[26] http://www.nationmaster.com/red/country/mg-mongolia/eco-economy&all=1

[27] D. Bum-Erdene, *Market Survey of Energy Efficient Building*, UNDP Mongolia, 2010.

[28] D. Bum-Erdene, *Market Survey of Energy Efficient Building*, UNDP Mongolia, 2010.

[29] C. Kim, Thalakada, Sarath, Tsolmon, Baasanjav, *Financial Sector in Mongolia: Transition to a Market Economy Built on Successful Financial Reforms*, Asian Development Bank, October 2008.

[30] O'Brien, Mark, Prokopenko, Vassili, *Mongolia: Financial System Stability Assessment*, International Monetary Fund, September 2008.

[31] O'Brien, Mark, Prokopenko, Vassili, *Mongolia: Financial System Stability Assessment*, International Monetary Fund, September 2008.

[32] O'Brien, Mark, Prokopenko, Vassili, *Mongolia: Financial System Stability Assessment*, International Monetary Fund, September 2008.

[33] O'Brien, Mark, Prokopenko, Vassili, *Mongolia: Financial System Stability Assessment*, International Monetary Fund, September 2008.

[34] O'Brien, Mark, Prokopenko, Vassili, *Mongolia: Financial System Stability Assessment*, International Monetary Fund, September 2008.

[35] C. Kim, Thalakada, Sarath, Tsolmon, Baasanjav, *Financial Sector in Mongolia: Transition to a Market Economy Built on Successful Financial Reforms*, Asian Development Bank, October 2008.

[36] C. Kim, Thalakada, Sarath, Tsolmon, Baasanjav, *Financial Sector in Mongolia: Transition to a Market Economy Built on Successful Financial Reforms*, Asian Development Bank, October 2008.

[37] Tsedendorj, Enkhbayar, Lkhagvajav, Myagmartuvshin, *Mongolia: Country Report on Housing Finance System*, UNESCAP & Housing Bank of India, June 2009.

[38] Nyamaa Togtokhbariul, *Microfinance Regulation and Supervision in Mongolia*, Iris Center, University of Maryland, November 2007.

[39] Tsedendorj, Enkhbayar, Lkhagvajav, Myagmartuvshin, *Mongolia: Country Report on Housing Finance System*, UNESCAP & Housing Bank of India, June 2009.

[40] Kamata, Takuya, et al., *Mongolia: Enhancing Policies and Practices for Ger Area Development in Ulaanbaatar*, World Bank, 2010.

[41] Tsedendorj, Enkhbayar, Lkhagvajav, Myagmartuvshin, *Mongolia: Country Report on Housing Finance System*, UNESCAP & Housing Bank of India, June 2009.

[42] Ibid

[43] http://www.doingbusiness.org/ExploreTopics/RegisteringProperty/Details.aspx?economyid=131

[44] D. Bum-Erdene, *Market Survey of Energy Efficient Building*, UNDP Mongolia, 2010.

[45] Tsedendorj, Enkhbayar, Lkhagvajav, Myagmartuvshin, *Mongolia: Country Report on Housing Finance System*, UNESCAP & Housing Bank of India, June 2009.

[46] Ibid

[47] Ibid

[48] Mesarina, Nino, Stickney, Christy, *Getting to Scale in Housing Microfinance: A Study of ACCION Partners in Latin America*, ACCION InSight Number 21, May 2007.

[49] http://www.usaid.gov/mn/programs/eprc/eprc-update-1162.html

[50] In Mongolia, this might include such as movable equipment, livestock, inventories and tools.

[51] Daphnis and Ferguson, "Housing Microfinance", Kumarian Press, 2004, p. 11

[52] D. Bum-Erdene, *Market Survey of Energy Efficient Building*, UNDP Mongolia, 2010.

[53] GTZ is the Gesellschaft für Technische Zusammenarbeit, a German international cooperation enterprise for sustainable development.

[54] Kuzio, Matthew, Tsaagaadai, Munhbaatar, *Saving a Toxic City through Eco Banking: The Case of Ulaanbaatar and XacBank*, Presentation at UNESCAP Bazaar of Ideas, December 2009.

[55] Kuzio, Matthew, Tsaagaadai, Munhbaatar, *Saving a Toxic City through Eco Banking: The Case of Ulaanbaatar and XacBank*, Presentation at UNESCAP Bazaar of Ideas, December 2009.

[56] The UNDP's Building Energy Efficiency Program takes the idea of energy efficiency to the next level. The program seeks to build entire detached houses in Ger Areas that incorporate a range of energy efficiency techniques, including efficient wall and ceiling insulation, well-designed windows, and low-emissions heating systems. An

independent survey revealed that 41% of residents with a household income of over ₮500,000 per year expressed an interest in such a building.[56] The UNDP project leaders are working out the details of how to make the product financially feasible.

[57] http://info.worldbank.org/etools/docs/library/156603/housing/pdf/Daphnis_ProductDesign.doc

[58] This recommendation assumes that such a partnership would be legal, given any anti-collusion laws.

[59] USAID, *Case Study: MIK issues MNT 10 billion bond*, USAID Mongolia, March 2010.

[60] Tsedendorj, Enkhbayar, Mortgage Market Development in Mongolia: Issues and Challenges, Presented at Regional Symposium on Pro-Poor Housing Finance in Asia and Pacific, April 2010.

[61] The precise percentage will depend on the loan terms required by the bond issuance, as well as other factors such as foreign exchange dynamics between the Tugrik and the foreign currency.

[62] Tanabe, M, *Mongolia: Strengthening the Pension System*, Asian Development Bank, 2006.

[63] The Future Millionaire Savings Program targets girls. They participate in an educational program and receive a certificate for completing the course. Concurrently with the education program each child is encouraged to open a deposit account which earns a high rate of interest.

[64] It is our observation that the rate of interest paid on these accounts is well above that which is necessary. Currently KHAN and XAC Bank UB offer child savings accounts with interest rates of 14-16% respectively. The intent of the account should be to teach prudent cash management with interest earning as an incidental benefit.

[65] D. Bum-Erdene, *Market Survey of Energy Efficient Building*, UNDP Mongolia, 2010.

[66] This might include creating a cooperative to purchases goods at lower costs.

[67] While average loan amounts vary from country to country, SBI has observed a range of $300 - $4,000 in loan sizes for home improvement lending.

[68] Globally, loan duration can range from as little as 6 months to 36 months and beyond, depending on the market. A range of 6-24 months is typical for initial offering of such a HIL product.

[69] Due to the usually longer duration of housing loans, it is recommended to set and charge interest on declining basis as opposed to straight line (flat) basis.

[70] This fee and other fees should be determined by each lender.

[71] There is sometimes more than two tranches.

[72] Lenders targeting borrowers with highly seasonal income might consider quarterly payments.

[73] The loan amount on a HBL would typically be larger than for a HIL or HCL.

[74] Loan amounts and well as loan periods (terms/duration) for home purchase loans will be higher than for other housing products.

[75] Interest rates for home purchase loans are usually lower than rates for business loans and sometimes lower than rates on other shorter term housing loan products.

[76] If a developer is involved, some lenders disburse the fund directly to the developer.

[77] For group loans the term is usually shorter in the global context. In Africa we have observed 12 month terms on group loans, whereas in South Asia and Latin America they are typically longer.