Terwilliger Center for Innovation in Shelter

Investigating Barriers to Access and Usage of Housing Finance in Ethiopia

Final Report

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Acknowledgments

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List of Abbreviations

ABS	Asset-backed Security
AfDB	African Development Bank
CAHF	Center for Affordable Housing Finance
CMA	Capital market authority
EMRF	Ethiopian Mortgage Refinance Company
ESS	Ethiopian Statistical Services
FSDE	Financial Services Deepening Ethiopia
HF	Housing Finance
HFHE	Habitat for Humanity Ethiopia
IMF	International Monetary Fund
KAP	Knowledge Attitude Perception
LMI	Low and Middle Income
MFI	Microfinance Institutions
NGOs	Nongovernmental Organizations
PMLs	Primary Mortgage Lenders
PAR	Portfolio At Risk
ROSCAs	Rotating Savings and Cooperative Associations
SACCO	Saving and Credit Association
SMEs	Small Micro Enterprise
WB	World Bank
ZHL	Zambian Home Loans

List of Definitions

- **Bank** –a financial institution that is licensed to accept checking and savings deposits and make loans. Banks are heavily regulated financial institutions.
- **Bond financing** – A debt instrument that an entity issues on a financial market, in exchange for capital from investors. It promises to pay interest and capital over a period longer than one year.
- **Equb or Iqub** - is an association of people in Ethiopian culture with the aim of mobilizing resources, especially finance, and distributing them on a rotating basis. It is distinguished from Eder by the duration of time; Equb is temporary or permanent, while Eder is a long-term association.
- **Eder**- is an association made up by a group of persons united by ties of family and friendship, by living in the same district, by jobs, or by belonging to the same ethnic group, and has an object of providing mutual aid and financial assistance in certain circumstances. In practice, the Eder is a sort of insurance programme run by a community or a group to meet emergency situations. However, compared to the insurance system, Eder is considered as a non-profit-making institution catering to the specific needs of a person.
- **Microfinance** – A means of extending credit, usually in the form of small loans with no collateral, to non-traditional borrowers such as the poor in rural or underdeveloped areas.
- **Securitisation** – A method of financing by which an organization transfers a portfolio of loans to a special legal entity that issues bonds to finance the purchase of the portfolio of loans.

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Executive Summary

This study investigates the housing finance market in Ethiopia, using qualitative and quantitative data collected from households, financial institutions, Fintechs, SACCOs, government offices, development partners, real estate developers and regulatory bodies. The data was collected from 47 commercial banks and microfinance institutions and 717 households with different income categories. Through desk review of secondary data and literature, additional information was collected to better address the objectives of the study. This is the most comprehensive study combining demand- and supply-side data in any housing finance market to our knowledge. The findings of this study are in line with our theoretical formulation that the development of the housing finance market can be captured by *systems thinking*, which focuses on the relationship between subsystems. The poor development of the Ethiopian housing finance market is attributable to the malfunctioning of the various subsystems that are important for the development of a viable housing finance market. The study has indicated that negative feedback from the financial service providers' subsystem, and the macro-economic environment affects both the supply and demand of housing finance products. Malfunctioning of the banking subsystem is demonstrated by the fact that most of the financial service providers do not have enough capital to grant loans for housing finance and tend to focus on high income earners and people with continuous streams of income.

Key Findings

The findings are organized according to supply side and demand side housing finance as follows:

- **Majority of households save in the informal financial institutions and personal savings are the most dominant means of housing finance**: The household survey indicated that most of the households save in informal financial institutions and only few households have savings in the mortgage institutions. Currently, the majority of households finance their housing using their personal savings highlighting that access to housing loans is very low.

- **Most households cited a lack of sufficient collateral as an impediment to obtaining a mortgage, which affects all income levels, however, it affects lower- and middle-income groups the most**. To learn more about what prevents households from applying for housing finance loans, they were asked to rank the barriers to housing loan/finance. The top four barriers that prevent households from applying for/obtaining housing loans are a lack of sufficient collateral, higher interest rates, a lack of enough knowledge about housing finance products, and the time it takes to process loans.
- **Households believe that a lack of sufficient income, collateral, and references are important factors for loan application rejection.** Financial service providers use adequate income and collateral to address information asymmetry problems like as adverse selection and moral hazard.

- **Households believe that they are more eligible to borrow from microfinance institutions than the other sources.** Households commonly repay their loan using their employment income and by cutting their expenditure. Households demand for future housing loans is very high and their preference is to get this loan from formal financial institutions. Findings from household survey indicate that 40.1% of households feel they are eligible for housing finance loans from microfinance organizations, whereas 32.1% believe they are eligible for housing finance loans from commercial banks. In other words, households believe microfinance institutions are the most likely to meet their housing loan needs, closely followed by commercial banks.

- **The survey revealed that the low and middle income households need housing finance for home improvement and incremental loans**: Most households are aware of housing finance/loan and perceive that housing finance/loan is good for incremental housing or home improvements. Households wish to take housing loans mostly for home improvement followed by incremental house construction. To access these loan households also seek support. The support they crave about is getting a grace period for loan repayment and a support that helps them fulfill the collateral requirements of financial institutions. They get information about housing/mortgage loans mostly from their friends and family members and from Facebook. However, some of the households who are conscious of this didn't apply for housing finance/loan in the last five years. In general, Households' attitudes toward housing finance are favourable and positive. Furthermore, most household heads' choices of housing finance products and loan amounts are unaffected by family, friends, and others.

- **It is of paramount importance to design housing finance products aimed at addressing the pressing housing finance needs of the low-income households**: There are various mechanisms by which funds may be raised for housing finance lending to low-income groups; evidence suggests that housing microfinance models tend to work in poorest countries. Therefore, the government of Ethiopia and non-governmental organizations are recommended to work together to design similar housing finance products for low income households.

- **Microfinance institutions provide loans targeting low and middle income households mostly for home improvements:** Survey results from the supply side indicate that more than half of the sampled financial institutions provide housing finance loans whereas majority microfinance institutions have housing loans for the low income households. Despite this, housing loans out of the total loan portfolio were found to represent less than 10%. Full house purchase or construction, renovation, expansion, finishing, incremental housing and WASH are reported to be the main purposes of the housing loans; a larger share of housing loans from microfinance institutions was utilized for home improvement and that of banks was spent on full construction/purchase.

- **Financial institutions reported that formal land titles are the commonly accepted collateral for housing finance loan applications:** In the process of providing housing loans, all the financial institutions responded that they require collateral and other documents that in turn found to be the main reasons for rejection if not filed with the loan application. One of the commonly required and accepted collaterals is a formal land title (official freehold certificate). Proof of citizenship/ national ID, good credit history, references, project descriptions/blueprints are also identified as additional documents required in any housing finance (HF) loan applications. And in the absence of formal land titles, formal non-title tenure documents including registration certificate for land or house, land purchase agreements, cadastral plot certificates can be provided to access housing finance.

- **Lack of stable income flow**, **collateral requirements and lack of credit worthiness of clients are the most cited reasons for housing finance loans rejections by financial institutions**: Almost all the financial institutions replied that they have experiences of loan rejections mainly due to applicants' lack of sustainable income flow, lack of/inadequate collateral, absence of sufficient credit history or bad credit history and lack of reference. Insufficient capital to lend is also reported to be a rejection factor from the supply side.

- **Surveyed financial institutions indicated the readiness and plan to introduce innovative pro-poor housing finance products in housing finance portfolio:** Assessment on the future of housing finance is observed to be encouraging as 93% of the interviewed financial institutions replied that they have plan to expand their housing finance portfolio up to 14% of the total loan portfolio on average and also plan to introduce additional pro-poor housing products such as micro saving, micro insurance, micro mortgage and mortgage. However, lack of loanable capital, limited institutional capacity to meet housing finance demand, inefficient government regulations, unavailability of land title and tenure insecurity are reported to be barriers on scale up.

- **Macroeconomic instability has a negative contribution to housing finance in Ethiopia**: The wider macro economy, which can be seen as a holistic-system within which the financial institutions and real estate subsystems are embedded, negatively affects the development of the Ethiopian housing finance market. Favorable macroeconomic factors such as low inflation and stable interest rates are important for the development of a viable mortgage market . The high level of inflation and depreciation of the local currency, which affect both supply and demand of housing finance instruments, are products of a malfunctioning macro-economic subsystem. Based on these findings, we recommend the government of Ethiopia to work together with the financial institutions to design better loan pricing and repayment mechanisms.
- **A Land title problem negatively affects collateral security:** Malfunctioning of government institutions is responsible for land title problems, which affects collateral security and hence access to housing finance loans. This will reduce the challenges associated with land acquisition for housing development.

In general, the results indicate that there is a huge unmet demand for housing finance by low and middle income households. This calls for a lot of effort and collaborative action, as the current housing finance market is mainly accessible for the high income group.

1. Introduction

1.1 Background Information

Housing is considered as a basic need. Yet providing habitable and decent housing for low-income group has been a major challenge in many countries. Millions of people are facing severe housing deprivation leading to sprawling of slum settlements in cities around the world accommodating more than one the billion people (Average, 2019; Manomano, Tanga, & Tanyi, 2016). An estimate by UN-Habitat (2022) indicated that 100 million people worldwide are homeless and one in four people live in harmful conditions. Another estimate also revealed that 3 billion people will require adequate and affordable housing by 2030.Cognizant of this, both developed and developing countries have identified the provision of adequate and affordable housing as a critical global and national issue that needs to be incorporated in national policies and international commitments. Among the list of international conventions and commitments it is worth mentioning Sustainable Development Goal (SDG) 11 which aims to make cities inclusive, safe, resilient and sustainable with a target of ensuring access for all to adequate, safe and affordable housing and basic services by 2030.

A study by Matsumoto & Crook (2021) indicated that Ethiopia, being one of the developing countries, has been challenged with high population growth, rapid urban expansion and increasing housing demand. Although Ethiopia is still a rural country, its urban population is expanding by 4.7% annually, accounting 22% of the total population in 2021 (CAHF, 2022). Despite the booming urbanisation in Ethiopia, the majority of its population dwells in poorly built, dilapidated and cramped houses which lack even the basic facilities such as adequate sanitation and safe drinking water (64.3 % of the urban population lives in slums as of 2018).

Overview by CAHF (2022) based on 2015 estimates indicates that Ethiopia will have approximately 4 million new urban households by 2027 and 9.7 million by 2037. Demand for urban houses is estimated at 471,000 per year from 2015 to 2025, and 486 000 houses a year from the year 2025 to 2035; while supply of housing stock 165,000 units nation-wide is leaving significant deficit on top of the existing backlog which is estimated to be 1.2 million in Addis Ababa alone (Alemu, 2021). Poor land management practices and limited supply of developed land, weak housing development administration and delivery systems, absence of a robust and affordable housing construction industry, weak stakeholder engagement and collaboration, high and increasing price of construction inputs, limited housing development instruments and the absence of a diversified housing finance system are identified as the factors that entangled the supply of housing in Ethiopia (CAHF, 2022; PDC, 2021).

One mechanism to tackle housing deficiency can be through housing finance which, according to the UN general assembly (2012), refers to financial policies and programmes that aim to finance the cost of housing for individuals and families by providing loans or grants for the purchase, rental, construction or improvement of housing. In line with this, Bah, Faye and Geh (2018) argued that housing finance plays a vital role in the housing value chain as it affects both the demand and the supply side and contributes to the development and deepening of financial markets. Warnock and Warnock (2007) also stated that housing finance is a vital component of a well-functioning housing system pointing out factors that promote long-term lending (the ability to value property and to seize it in the case of default, information on the creditworthiness of potential borrowers, macroeconomic stability) and the mobilisation of funds (be it through savings and deposits, capital markets, a governmental liquidity window, or secondary markets) as an important element. Unfortunately, these factors seem to be absent in developing countries leaving the housing finance system underdeveloped.

The formal housing finance sector does not have a good record in Ethiopia as well. At the end of the imperial regime, two housing finance institutions without experience were established in Ethiopia. These were merged and formed the public sector Housing and Saving Bank (HSB) when the Derge came to power. From 1975 to 1991, HSB delivered housing loans to members of housing cooperatives with verifiable regular incomes with subsidized interest rates (4 to 5%). Later, following financial restructuring, the Housing and Saving Bank was reorganized as an all-purpose commercial and investment bank and renamed the Construction and Business Bank (CBB) in September 1994. Its former emphasis on subsidized housing finance was reduced and market interest rates were applied to housing loans. Thus, the removal of subsidy of the interest rate makes the loan unaffordable by the low-income group in addition to the reduction of emphasis on housing finance that affects the access of the housing loan for the residents. Currently, CBB is non-existent as it was amalgamated to the Commercial Bank of Ethiopia (CBE) in 2016. According to CAHF (2022), Ethiopia's housing finance system is at the infancy stage with more than half of the housing markets being financed informally through relatives, friends, and savings groups, while only 23 % is financed through mortgages. High interest rates, high government involvement and regulatory controls, low incomes, credit risk, inadequate supply of affordable housing, low financial literacy, and nearly non - existent housing finance sector are identified as factors hindering the growth of the housing finance market. A study by Senbeta & Batra (2020) also identified low income level of the households, high house price, inflation, down payment required by lenders, lack of collateral, high amount of monthly installment payment, and lack of access to land for house construction as factors hampering access to housing finance in Ethiopia.

In an effort to tackle the challenges related to housing finance in Ethiopia, the government introduced and implemented the integrated housing development program, which managed to build nearly 400,000 condominium houses in the past 15 years with state-owned Commercial Bank of Ethiopia (CBE) as the sole source of mortgage. However, it has failed to address the low-income groups as it was initially targeted. In support of this, Senbeta and Batra (2020) stated that housing finance in Ethiopia is inaccessible for the majority of households as only higher income groups and those working in the financial sector have the opportunity to use housing loans granted by few commercial banks. Other government initiatives in promoting private housing infrastructure developers also remained less fruitful leaving an unmet housing demand of about 1.2 million. This might not be surprising as literature indicates that in developing countries only 3% of the population has outstanding mortgages and 75% of poor/low-income households are unbanked which limits their chance of obtaining mortgages with conventional housing finance providers. Consequently, the poor, (which constitutes the majority of the population in developing countries) have very few alternatives to meet their needs for housing finances which includes personal savings, selling of assets, borrowing from family and relatives or community level social lending and saving associations. Thus, identifying appropriately designed housing finance products and interventions in line with income categories should be given focus so as to address the housing and housing finance needs of the low-income populations (HFHI, 2014).

Moreover, cognizant of the challenges of housing and housing finance needs, the government has recently been making efforts to increase homeownership opportunities by including it in the 10-year strategic plan where it plans to build 4.4 million houses by 2030. Under this plan, the lion's share is allocated for the private sector as it is expected to meet 80% of this target, which in turn poses huge investment opportunities to participate as either a developer or financer. It is worth noting that this opportunity is much wider taking into consideration the need of the low income group for incremental housing including maintenance and renovation.

Being one of the actors of housing services in Ethiopia, Habitat for Humanity Ethiopia (HFHE) has initiated and implemented pro-poor housing intervention programs over the past years which targeted the provision of affordable and decent housing for low-income households through the mortgage housing scheme.

As seen in the above discussion, the housing finance system has multifaceted dimensions and engages a number of independent stakeholders which calls for a deeper analysis. In line with this, HFHE believes that conducting a scientific assessment of the housing finance landscape in Ethiopia is an important milestone to design appropriate interventions to contribute to the development of housing finance in Ethiopia that can have a spillover effect on the welfare of low-income households.

1.2 Objectives of the Study

The main objective of this study is to investigate the housing finance market in Ethiopia and identify barriers in accessing and using housing finance.

Specifically, the study focused on the following objectives;

- Conduct a holistic assessment of the housing finance market in Ethiopia including,
- Identification of housing finance market actors;
- Identification of existing and emerging housing finance products and solutions available in the market;
- Identifying of current and future housing finance needs and developments along the housing finance value chain;
- Investigate the demand and supply side housing finance needs, challenges and opportunities as well as assessing the performance of the overall system in promoting affordable housing finance;
- Identify and review existing regulations, policies and laws that support and/ or hinder housing finance for low and middle income households;
- Assess the knowledge, experiences, behaviors, attitudes, social norms and perceptions of low income households towards access to housing finance;
- Explore potential housing finance investment areas and opportunities in line with the current financial and infrastructural development of Ethiopia;
- Assess the support functions currently operational in the country that are necessary to promote affordable housing finance.
- To craft and propose short, medium and long term recommendations that can be used in developing interventions that can help to create a sustainable housing finance market and resolve barriers on access and usage of housing finance.

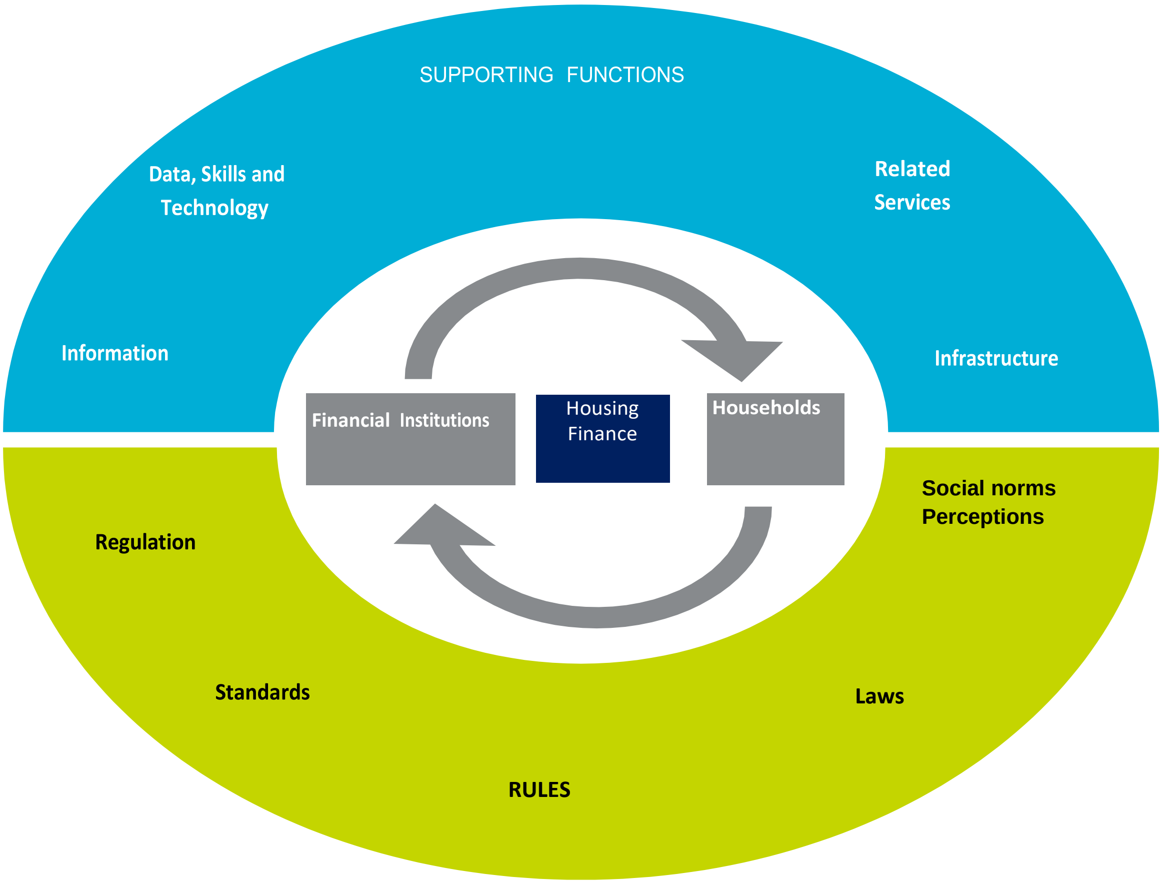
1.3 Methodology and Approach

1.3.1. RESEARCH FRAMEWORK

In order to achieve the objective of the study, the market systems framework was used to better understand the barriers to access and usage of housing finance to low-income households in Ethiopia. Within the framework, the main system studied is housing finance, where the supply comes from financial institutions, and the demand from the low-and middle-income households. The underlying hypothesis of the study is that there are barriers to the usage and access of housing finance from the supply side to the demand side, while low-income households need improved access to innovative housing finance products. In order to address the objective of performing a holistic assessment of the housing finance market in Ethiopia, we applied a systems thinking approach which is a widely used method in science. Systems thinking is a general conceptual orientation concerned with the interrelationships between parts and their relationships to a functioning whole (Seddon, 2005). System theory was used as a new way of 'thinking' beyond the traditional 'linear' approach of solving problems through a holistic systems approach that focuses on the root causes and interconnectedness between various components of the system under consideration. It is also an established fact that housing finance demand and supply involves many issues of a complex system. We employed systems thinking to assess the linkage of the factors that influence the demand for and supply of housing finance products in Ethiopia. In this study, based on the understandings from the literature in the field, an attempt was made to conceptualise the

Ethiopian housing finance market as a complex system which is composed of interacting components. Our analytical strategy aimed to explain the development of the housing finance market by examining factors that influence the demand and supply subsystems. The figure below illustrates the market system framework that the team adopted was used for the assessment of the market for demand and supply of housing finance in Ethiopia.

Figure 1- 1: Housing Finance Market System: Adapted from the Terwilliger Center for Innovation in Shelter, 2018



Through the process of understanding the framework, the team aimed to figure out the other factors that determine the demand for and supply of housing finance in Ethiopia. The team also sought to understand the current enabling environment, supporting functions and institutions that directly or indirectly affect the housing finance market in the country. On top of that, identifying key housing finance market actors and their roles in the housing value chain will help to provide recommendations on potential market-oriented interventions. Moreover, it will also enable us to draw general workable recommendations that help to improve policy and regulatory bottlenecks hindering access to and usage of housing finance.

1.3.2. SOURCE AND TYPE OF DATA

The study applied the mixed method of research design: quantitative and qualitative techniques to address the objectives. In both techniques, appropriate and suitable methods to the study context were applied for data collection and analysis.

Both primary and secondary data were used to address the objectives of the study. Moreover, the research team conceptualized the housing finance market as a system; data required on the two major subsystems for the investigation, namely housing finance demand and supply as well as the regulatory, macroeconomic variables, support functions and policy framework affecting the system was collected and analyzed.

1.3.2.1. SECONDARY DATA

The secondary data collected from various sources was utilized to substantiate the finding from primary data analysis. In addition, literature was consulted to draw lessons from similar projects across the globe. The secondary data of relevance to the study includes information on the macroeconomic variables (such as GDP growth and inflation) obtained from yearly and quarterly bulletins of the National Bank of Ethiopia, Ethiopian Statistical Services (ESS), World Bank Development Indicators and annual reports of financial institutions in Ethiopia. Moreover, secondary data was obtained from review of literature from books, journals, scholarly articles and seminar papers.

Contextual Analysis: A review of Ethiopian legal and policy framework was conducted to assess the holistic picture of the housing ecosystem. This may include financing and mortgage policy, lease, land and urban policy that influence the housing finance development prospects in the country.

Document Review: The research team conducted a desk review to understand the context of the current environment surrounding the market for housing finance as well as the housing market value chain. The document review allowed the team to identify where the housing finance market actors are in the housing market value chain, what products are available and what the current trends are when it comes to housing finance with special focus on providing housing finance to low-income households. This desk review utilised documents and other secondary data available from the web and institutional repositories. Moreover, secondary data about Financial Service Providers (FSPs) and their housing finance products and services were also collected through desk research (websites, reports, case studies, etc).

1.3.1. METHOD OF DATA COLLECTION

The data collection methods that were used for this study include: 1) desk review of secondary data available on housing finance and housing finance market value chain players; 2) key informant interviews (KIIs), and 3) quantitative surveys for both financial institutions including (commercial banks and microfinance institutions) and households. Primary data was collected from a sample of commercial banks, microfinance institutions, fintechs, saving and credit cooperatives (SACCOS) that offer housing finance services. This data was obtained through standard questionnaires administered to the sampled households, commercial and microfinance institutions.

A. Key Informant Interviews (KIIs)

The study methodology consisted of holding Key Informant Interviews (KIIs) and one-on-one discussions with different stakeholder which constitute the housing and housing finance markets in Ethiopia. The idea was to initiate and / or deepen the dialogue with leading institutions and organizations in the public sectors, commercial banks, microfinance institutions, SACCOs, Fintechs as well as development partners which would impact and determine the future trajectory of housing finance supply and in particular, improved access for the low, informal and middle-income segments of the population. Table 1-1 presents the stakeholder groups that were interviewed (on the basis of customized questionnaires) during the course of this study:

Table 1- 1: Summary of Samples: Supply Side

Key Informant Interviews	
Commercial Banks	5
Micro Finance Institutions	6
Savings and Credit Cooperatives (SACCOs)	9
Government Offices	2
Development Partners	2
Real Estate Developers	1
Regulatory Authorities	2
Fintech	1
Total	**27**

(Refer Annexure 1 for the full list of Key Informants detailed addresses and contacts / institutions interviewed)

B. Quantitative Survey for FSPs

A well-structured questionnaire in English was administered to financial service providers to understand the supply side determinants of housing finance in Ethiopia.

Table 1- 2: Lists of Sample For FSP (Supply Side)

No.	Financial Service Providers (FSP)	Sample Size
1	Commercial Banks	25
2	Microfinance Institutions	22
Total		**47**

C. Quantitative Survey for Households across cities and towns in Ethiopia

The study focused on examining the access and use of housing finance of the households in towns and cities in Ethiopia. The reasons to focus on the urban housing sector include the fact that urban housing problems in the country are generally more severe and profound than rural housing problems both in their intensity and complexity[1]. In Ethiopia, the urban areas have higher levels of population density, higher population growth rates, high levels of in-migration, higher costs and value of property and land, and higher levels of income and employment disparity (Alebel et al., 2016). Consequently, overcrowding, high rents, slums and squatter settlements, are common features of the Ethiopian urban landscape (MoUDI, 2021). Thus, the study intends to focus on the urban sector because it has more severe housing problems. Another reason to concentrate on the urban sector is the fact that the main housing problems in the rural areas revolve around the issue of qualitative improvement in terms of sanitation and infrastructure for existing housing ((MoUDI, 2021). Given that successive housing programs and policies in the country have focused mainly on urban housing.[2] Many of the contentious housing policy issues and housing finance options which the study intends to discuss are largely more relevant to the urban housing sector. Following classification by Ethiopian Statistical Services (ESS), cities and towns[3] are divided into two major groups: 'major urban centers' mainly comprising 31 major urban centers: all regional capitals, 10 sub-cities in Addis Ababa and twelve other major urban centers with more dwellers than other urban centers. 'Other urban centers' comprise all urban areas from all regional states that are not included in the 'major urban centers' category.

[1] Matsumoto, T. and Crook, J. (2021). Sustainable and Inclusive Housing in Ethiopia: A Policy Assessment.
[2] Ministry of Urban Development and Infrastructure of Ethiopia; Ten Years Perspective Plan
[3] As it is also clearly stipulated in the scope of the work under the ToR, the analysis should cover Addis Ababa and Major cities in Ethiopia as they give better country representation.

A questionnaire survey is conducted on a sample of household heads randomly selected from towns and cities in Ethiopia. Given the high proportion of housing demand, the study purposefully selected eight cities i.e. Addis Ababa, Dire Dawa, Hawasa, Bahirdar, Debre Birhan, Adama, Bishoftu and Harar cities. The cities were selected based on the following criteria: high number of housing needs, industry and investment attraction centre, best experience in housing supply, geo-spatial distribution of cities and also relatively better experience in budgeting housing finance.

After selecting the 8 cities and towns across the country, their population size was obtained from ESS (2021), Population Projection of towns. Average household size per region was also obtained from ESS data. Household number per cities and towns was computed using total population and average household size. Once the total household was determined for each city and town, the total household in these 8 selected cities and towns were calculated to be about 1.8 million households. From the 1.8 million households, 769 households were selected. Thehe sample size was determined using standard sample size determination formula with 95% confidence interval and 2.5% error margin. During the data collection exercise, we managed to collect data from717 households which indicates that 93.2% of the proposed sample was collected. Once the sample size was determined, the households to be sampled from each town and city was assigned proportionally to the total household size indicating that more households were to be sampled from cities and towns with larger households (see Table 1-3 below). In order to capture the general picture of the demand for housing finance, the sample consisted of households with different experience of housing finance i.e., those: who have applied for housing finance at commercial banks and microfinance institutions, who don't have a history of applying for housing loan and low-income households from administrative data. A computer package www.randomizer.org and Rand formula in Excel were used to select random samples of respondents.

Table 1- 3: Sample Collected by Cities and Towns

Cities/towns	Sample Size
Addis Ababa	334
Dire Dawa	80
Hawassa	81
Bahirdar	66
Debre Birhan	21
Adama	66
Bishoftu	30
Harar City	39
Total	717

We used the World Bank's income classification to determine low-income and middle-income households, which both income groups are the focus of our analysis.[4] According to this classification, low-income households are those with annual income of 58,338 Birr ($1,085) or less. The World Bank classifies middle-income into lower middle-income and upper middle-income; accordingly, lower middle-income households are those with income between 58,339 Birr ($1,086) and 228,781 Birr ($4,255); upper middle-income households are those with annual income between 228,781 Birr ($4,256) and 710,001 Birr ($13,205); and high-income those with annual income of 710,001 Birr ($13,205) or more.

Training of Enumerators and Data Collection: Data was collected by a team of locally recruited enumerators. The selection of enumerators was based on their educational background (at least a bachelor's degree), understanding of the local languages and familiarity with the area. The enumerators and supervisors were trained for two days at PSI

[4] The figure is converted from USD to Birr using an exchange rate of 53.7676 Birr per USD. Details of the World Bank's classification based on income can be found here: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

prior to data collection, taken through the content of the questionnaire translated from English to Amharic. In addition, they were trained on digital data collection techniques using tablets. The main topics of the enumerators training included: understanding the objectives of research, understanding questionnaire content, role plays and discussions on framing of questions, use of tablets in data collection, loading and uploading data from the tablets to the server, carrying out field implementation and procedures to be followed in the field during data collection. Besides, the survey and research team has taken HFHE's safeguarding policy and code of conduct. Data was collected between 17 April and 16 May 2023 by the trained enumerators using tablets or mobile phones on a KOBO Collect software.

1.3.2. METHOD OF DATA ANALYSIS

Data obtained from documents review, KIIs, and quantitative surveys was summarized accordingly. The quantitative data was used to create an overall profile of the financial and non-financial institutions in the housing finance market which includes their financial management practices, challenges, future needs and business outlook. Data analysis was performed using the STATA software. The main statistical procedures include descriptive statistics and regression analysis.

Descriptive statistics: Data was cleaned, organized and analyzed in Microsoft Excel and STATA software. Descriptive and inferential statistics techniques such as arithmetic mean, percentage and standard deviation were used to analyze the data. Descriptive statistics describe the single variables used in this study, while inferential statistics describe any associations or connections between the variables.

1.3.2.1. Modeling Demand for Housing Finance

The study uses the utility maximization objective of a household as a foundation of modeling demand for housing finance. Given a house as durable consumer goods, a representative household maximizes utility subject to the consumer constraint, which is a function of prices of the goods consumed and disposable income of the consumer. Associated with direct utility maximization as a function of consumption items is an indirect utility which is a function of the prices of the items and the income of the consumer. Following Benetton (2018), given that our objective is to model factors affecting demand for housing finance, we use indirect utility as a foundation for modeling demand for housing finance. Put differently, we use an indirect utility function to model demand for housing finance where indirect utility is given as a function of consumer income and price of house; and price of house is in turn proxied by interest on housing loans. Therefore, we start with basic model of demand for housing finance as a function of interest rate on housing loan and household income, while other household characteristics and non-household factors affecting housing finance will be accounted for later, as follows:

$$DHF_{ihs} = f(r_{hs}, income_i) \qquad (1)$$

Where DHF_{ihs} represents demand for housing finance by household i for house type h and from finance source s; r_{hs} is an interest rate on housing loan on house type h and from finance source s; and $income_i$ is income of household i. Given that, in addition to interest rate and income, other factors also affect demand for housing finance, we control for more variables based on the literature (Akinwunmi, 2009; Li, 2010; Ebekozien, 2019). Therefore, we relax Equation (1) by controlling for additional variables that are found to be potentially impacting demand for housing finance as follows:

$$DHF_{ihs} = X_i'\delta + \varepsilon_i \qquad (2)$$

Where X_i' represents the covariates such as interest rate, household characteristics including income of household, and location (city/state) characteristics; ε_i is error term associated to borrower i; δ is vector of coefficients associated with X_i'.

Our dependent variable, which is demand for housing finance, is observed on condition that the household has applied for a housing loan. In other words, demand for housing finance is observed only after a housing loan application. And therefore, the model at hand is associated with a non-randomly selected sample and hence truncated dependent variable. To correct for the associated sampling bias, we employ the Heckman model. Thus, we employ a model that corrects for sampling bias.

In the first step, we model the probability that a household applies for housing finance (and hence factors affecting the probability of applying for housing loan), which is usually given by probit regression, as:

$$P(Z) = \Phi(Z_i'\beta) + \varepsilon_i \qquad (3)$$

Where HFA and Z_i' represent housing finance application and the covariates explaining the probability that a household applies for a housing loan, respectively.

In the second step, demand for housing finance was estimated given that we can observe demand for housing finance once application of housing finance is observed. Accordingly, demand for housing finance will be conditional on that a household has applied for a housing loan. The following equation explains this:

$$E(DHF_{ihs}|X_i',\ PFA = 1) = X_i'\delta + E(\varepsilon_i|X_i',\ PFA = 1) \qquad (4)$$

Alternatively, we can explain the model by decomposing the X_i' covariate into interest rate on housing loan, household characteristics including household income, and location (city/state) characteristics, as follows:

$$E(DHF_{ihs}|X_i',\ PFA = 1) = \theta_0 + \theta_1 r_{hs} + Householdcharacteristics_i'\eta + Location_i'\gamma + E(\varepsilon_i|X_i', PFA = 1) \qquad (5)$$

1.3.2.2. Estimation Method

In examining factors that determine demand for housing finance, we employ the Heckman model given that demand for housing finance is observed on condition that the household applied for housing finance. Therefore, our estimation approach involved two steps: in the first step, the probability that a household applied for a loan was estimated; and in the second step, conditional that a household applied for a housing loan, factors affecting demand for housing finance were estimated.

1.3.2.3. Ethical Consideration

While carrying out research of this magnitude, an investigator has an obligation to respect the rights, needs, values and desires of the respondents and participating organizations. Therefore, an informed consent form was prepared for the respondents.

The contents of the form include:

- The right of each member of the target population to participate voluntarily, to refrain from answering any question they do not intend to answer, to withdraw at any time so that they were not being coerced into participating;

- The purpose of the study, we assured them that the exercise would be purely for research purpose and that their responses would not be used for other issue(s) to their detriment;
- The right to ask questions, obtain a copy of the results and have their privacy respected and signatures of the respondents / participating organizations and the researcher agreeing to these questions and
- The form acknowledged that the participants' rights had been protected during the data collection process.

Also, to protect the identity of individuals, names of respondents were totally disassociated from responses during the cleaning and transcription processes, at least, for the structured questionnaire.

1.4 Socioeconomic Characteristics of Respondents

1.4.1. SOCIO-ECONOMIC PROFILE OF RESPONDENTS SAMPLE DISTRIBUTION

To examine the demand side of housing finance, data were collected from 717 households from selected Ethiopian cities. Almost 47% of the respondents were from the capital city, Addis Ababa while 11.3% and 11.16% of the respondents were from Hawassa and Dire Dawa respectively. The remaining 31% of respondents are from Debrebirhan (2.9%), Bahirdar (9.2%), Bishoftu (4.2%), Adama (9.2%), and Harar (5.4%). Majority of the respondents are males in all the cities except for Adama and Bishoftu, where female respondents are the majority. Overall, out of the total respondents, 397 (55%) are males and 320 (45%) are females.

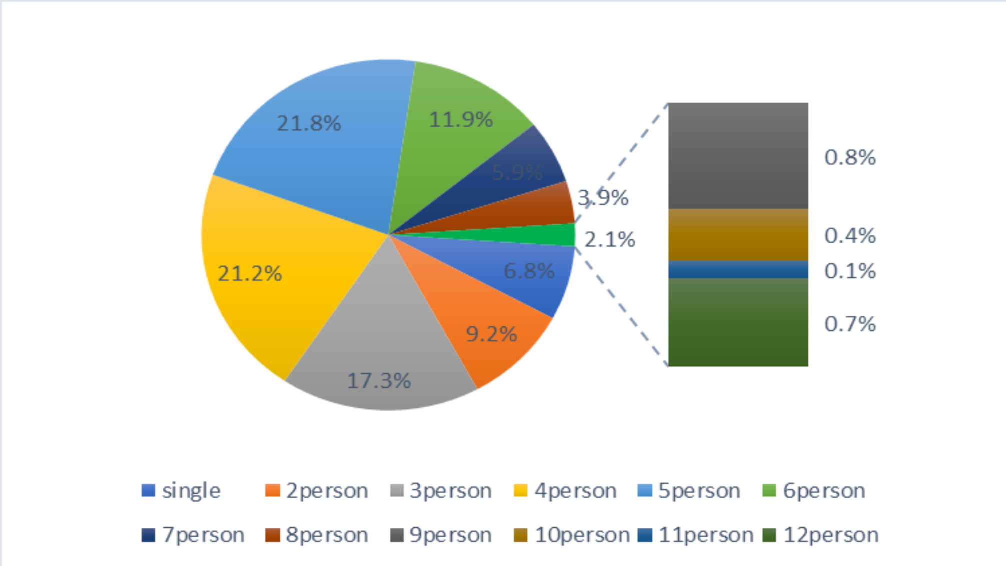
Table 1- 4: Sample Distributions across Cities

City	Gender		
	Male	Female	Total
Addis Ababa	176	158	334 (46.58%)
Dire Dawa	60	20	80 (11.16%)
Debre Birhan	13	8	21 (2.93%)
Bahir Dar	46	20	66 (9.21%)
Bishoftu	11	19	30 (4.18%)
Adama	13	53	66 (9.21%)
Hawassa	55	26	81 (11.30%)
Harar	23	16	39 (5.44%)
Total	397	320	717 (100%)

I. HOUSEHOLD SIZE

Household size may affect household saving for a given income and hence household's access to finance. The average household size in this study is 4.37 and only less than 17% of the households are small households (single to 2 person households) in the cities considered for the study. More than 60% of the households have 3 to 5 family sizes while less than 3% of the households have 9 or more members.

Figure 1- 2: Household Size

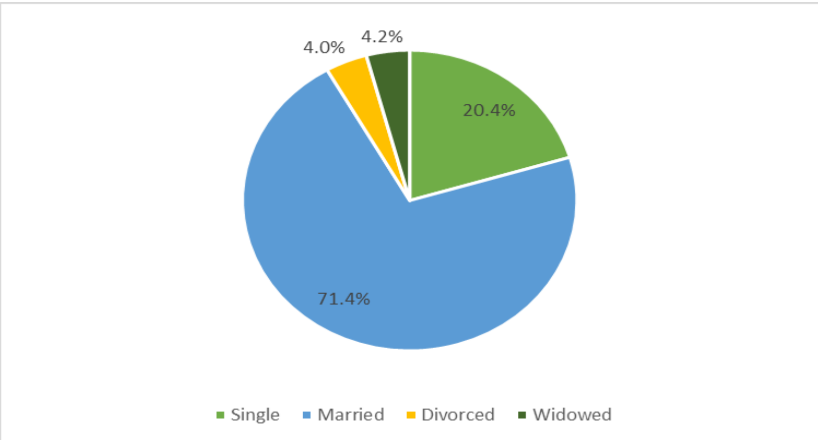


Source: Household Survey, 2023

II. MARITAL STATUS

Regarding marital status, 512 (72%) of the respondents are married, 146 (20%) are single, and the remaining 59(8%) of the respondents are either divorced (4%) or widowed (4%).

Figure 1- 3: Marital Status

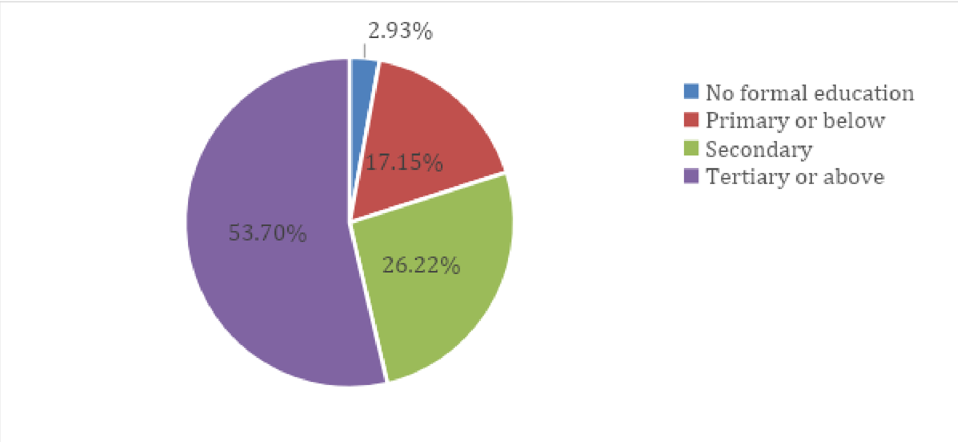


Source: Household Survey, 2023

III. EDUCATION

From the household heads participating in the study, more than 97% (696 out of 717 household heads) have a formal education. Only less than 3% (21) of the household heads have no formal education. Majority of the household heads have a tertiary level of education. However, almost 91% of the formally uneducated household heads are females (19 out of the 21 such household heads). This implies that females have a lesser chance of having formal education than that of males in the society. The educational distribution of respondents enables the study to associate level of education with access to housing finance.

Figure 1- 4: Education



Source: Household survey, 2023

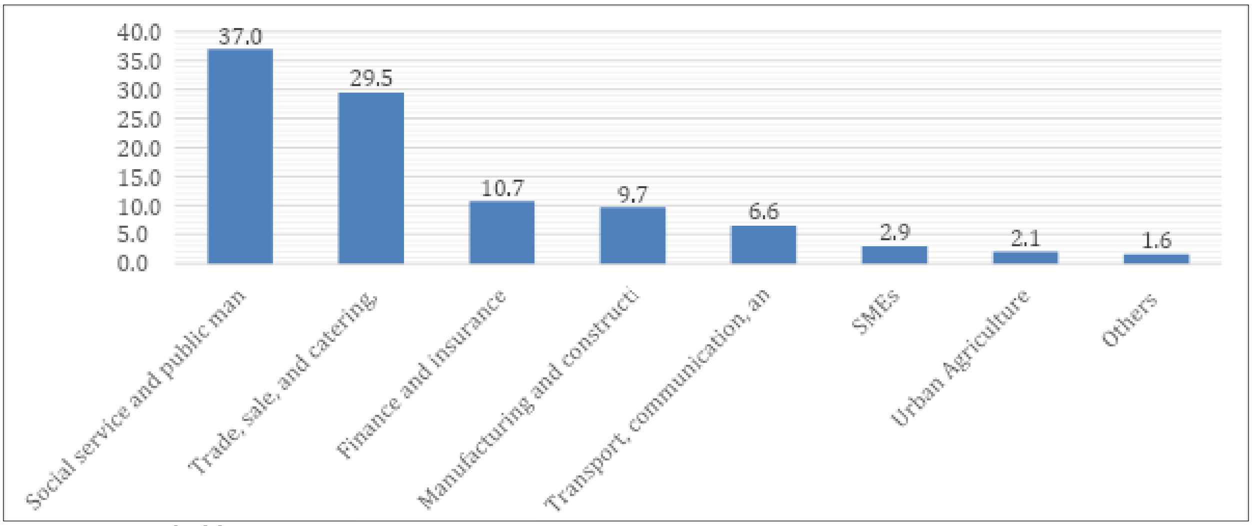
IV. EMPLOYMENT

Majority of the respondents (80.8%) are employed while 10.7% are unemployed. The remaining are either students (0.4%) or retired (8.1%). Of all employed, around 64% of the respondents are employed in the formal sector while the informal sector provides employment for the remaining 36% of the respondents.

Figure 1- 5: Employment Status and Sector Of Employment

Regarding their specific sector of employment, as shown in Figure 5.18 below, the majority (more than 66%) of the respondents are employed in social services and public management (37%), and trade, sale, and catering industry (29.5%). The financial sector is the third highest employer (10.7%) followed by the manufacturing and construction sector (9.7%). Only less than 3% of the respondents are employed in the SME sector of the economy. Thus, almost all of the household heads participating in the study have income.

Figure 1- 6: Employment by Sector (in percentage)



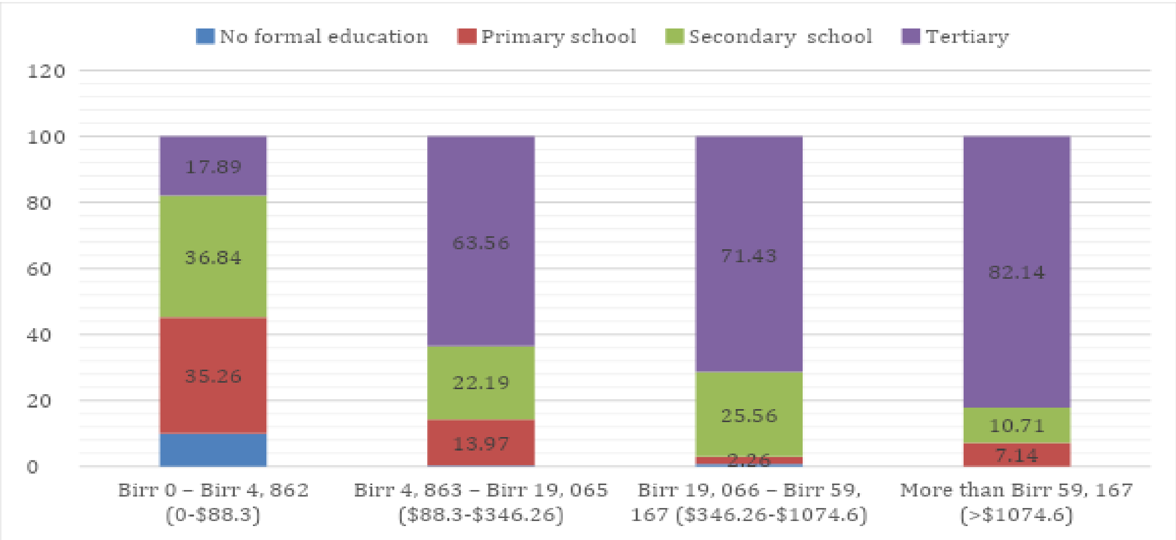
Source: Household survey, 2023

1.4.1 HOUSEHOLD INCOME AND FINANCIAL DECISION MAKING

I. HOUSEHOLD INCOME ACROSS LEVELS OF EDUCATION

More than 90% of household heads have at least a primary school education. Education is accepted to transform human lives by driving economic development in a nation. As can be observed in figure 4.20, household income increases with levels of household head education.

Figure 1- 7: Income across Education Level

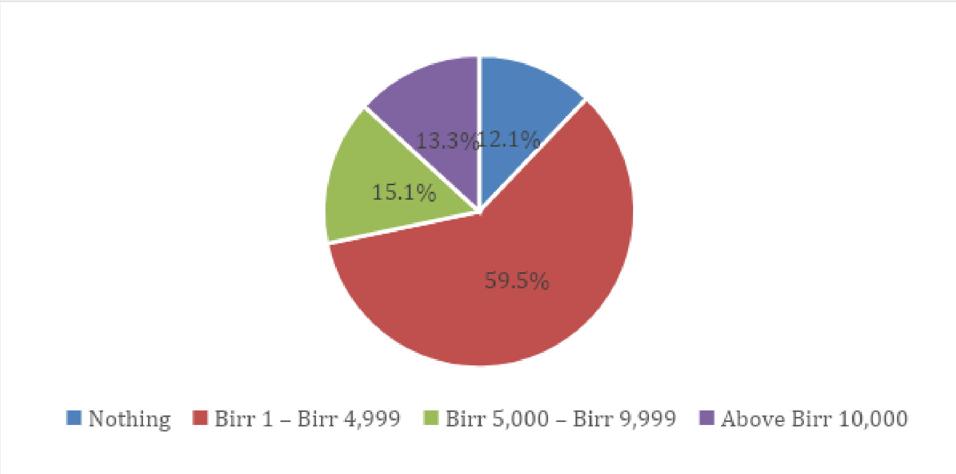


Source: Household Survey, 2023

II. SAVING BEHAVIOR

Saving is about both accumulation and smoothing of consumption in the face of volatile income. As shown in Figure 1-8 below, more than 87% of the households have some savings. More than 28% of the households save Birr 5,000 (current equivalent of 90.25 USD) and above on a monthly basis.

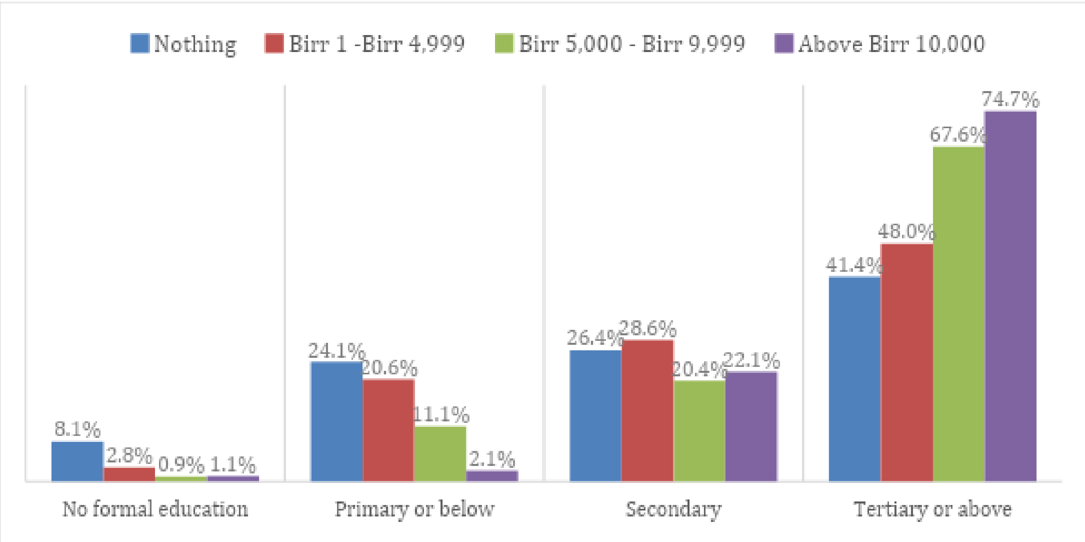
Figure 1- 8: Saving



Source: Household Survey, 2023

In addition to its impact on earning, education may also affect households' savings (See Figure 1-9), which could affect households' access to finance. The result shows that household saving increases with the household head's level of education.

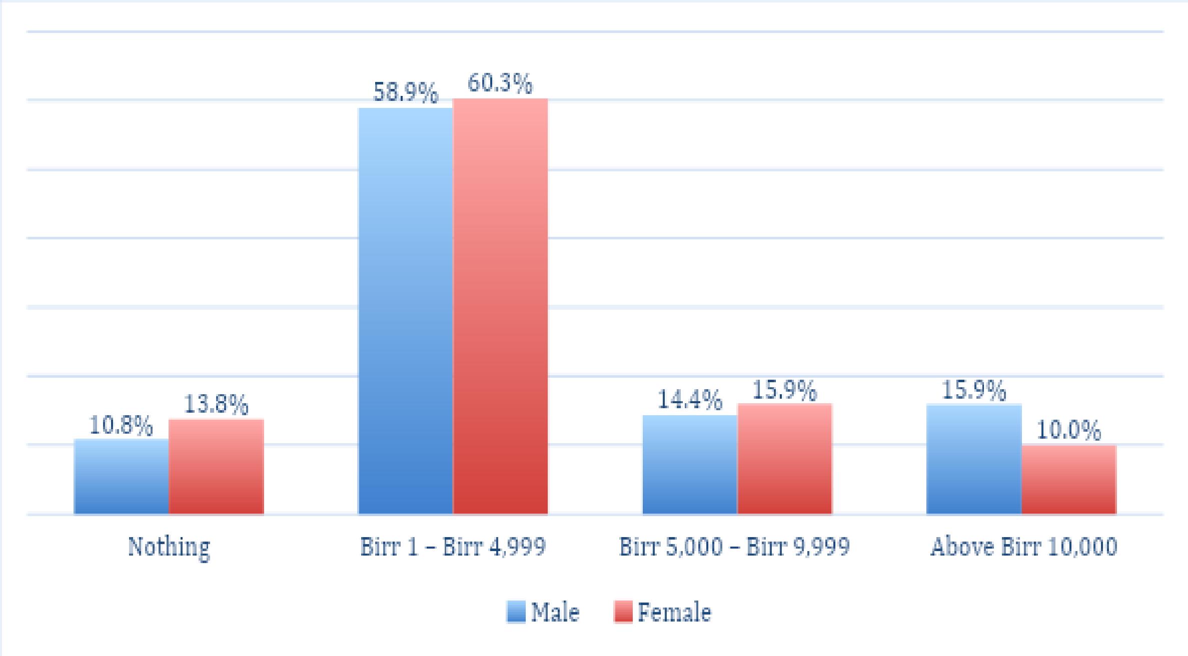
Figure 1- 9: Saving Across Education Level



Source: Household Survey, 2023

Moreover, saving is not that much gender sensitive as household saving does not significantly vary between male and female household heads (See figure 1-10 below). Household saving, however, seems to vary among income groups (See Figure 1-10 below).

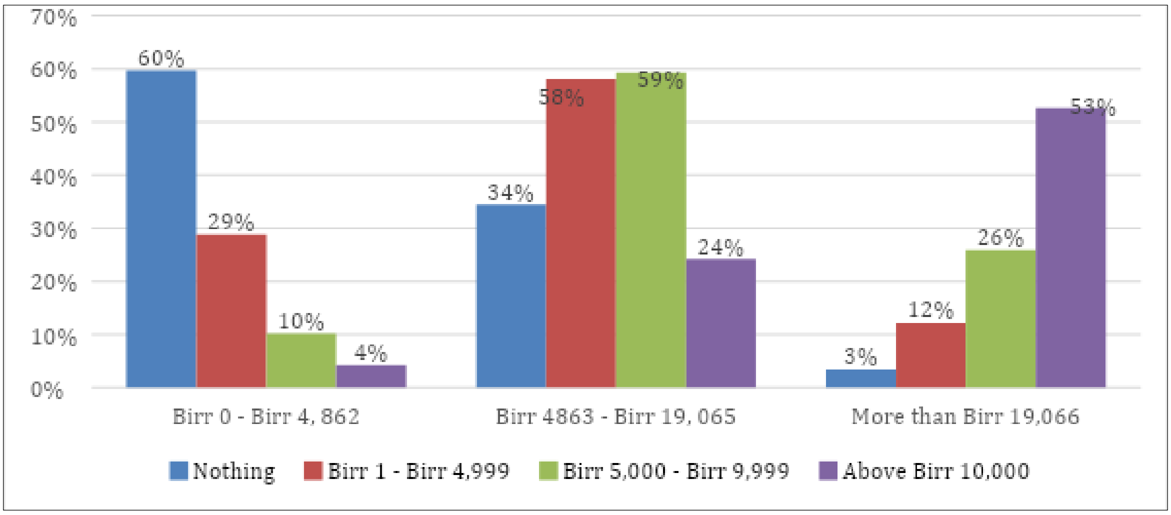
Figure 1- 10: Saving Across Gender And Income



Source: Household survey, 2023

Consistent with theories, household saving is higher for high earning households. As shown in Figure1-11 below, households in the higher income bracket have higher monthly savings. For example, 60 percent of households with a monthly income up to Birr 4,862 do not have monthly savings. Whereas 53 percent of households with a monthly income of 19,066 or more save at least Birr 10,000 on monthly basis.

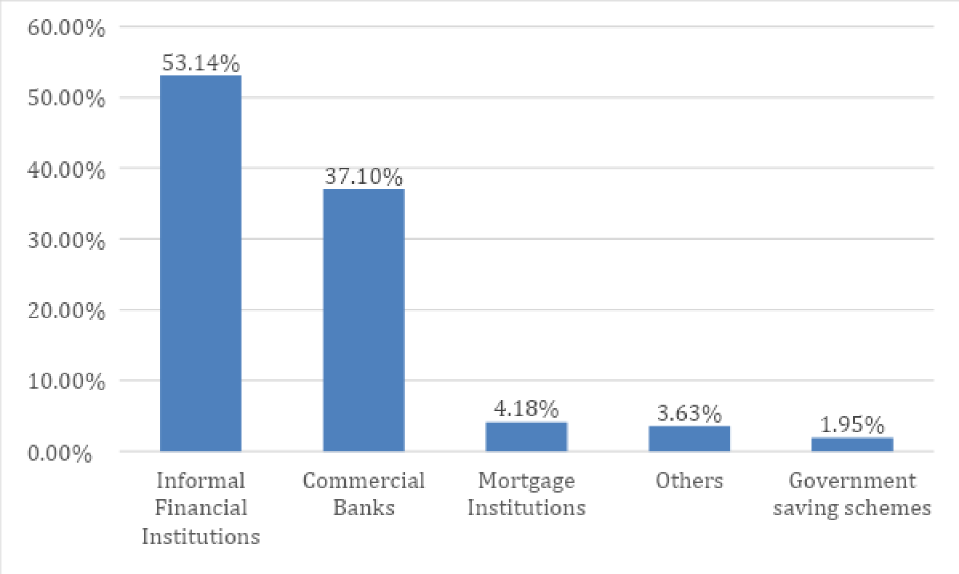
Figure 1- 11: Saving across Income Group



Source: Household Survey, 2023

Commercial banks, microfinance institutions, equb, and ROSCAS are the common institutions that accept deposits from households. As shown in Figure 1-12 below, the majority (53%) of the households save in the informal financial institutions followed by commercial banks (37%). Only 4.2% of the households have savings in mortgage institutions. This is not surprising given that mortgage institutions are new to the economy.

Figure 1- 12: Household Saving by Financial Institutions



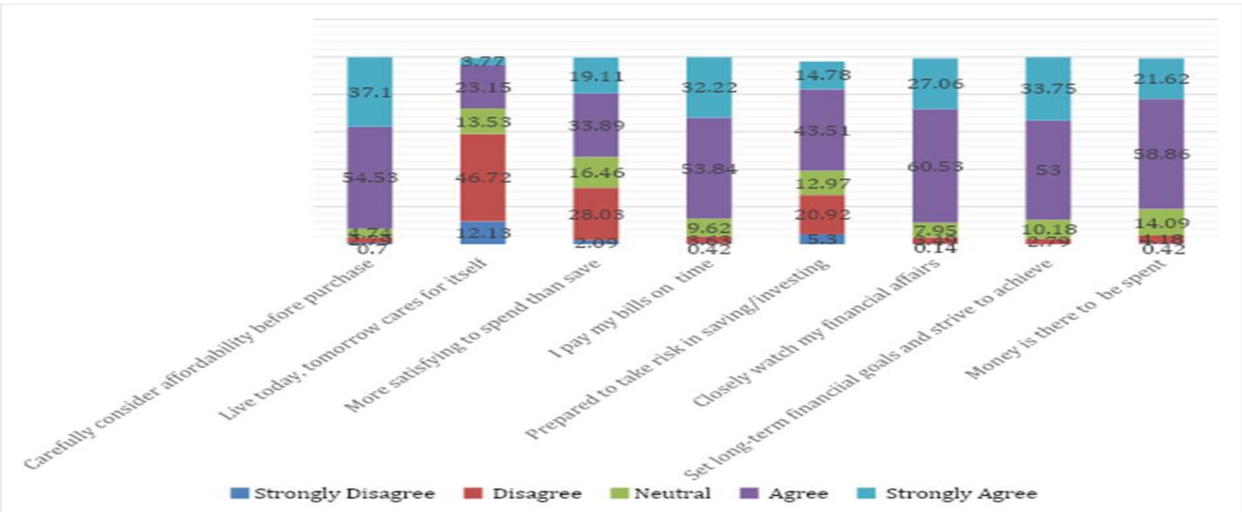
Source: Household Survey, 2023

III. FINANCIAL DECISION MAKING

A. HOUSEHOLDS' ATTITUDE TOWARDS MONEY AND SPENDING

As shown in Figure 1-13 below, households carefully consider affordability (91.6%) before their decision to acquire items. Most of them watch their financial affairs closely (87.6%), pay their bills on time (86%), and set and strive to achieve long-term goals (86.75%). For 80% of the households, money is there to be spent and spending is more satisfying than saving for the majority of households (53%).

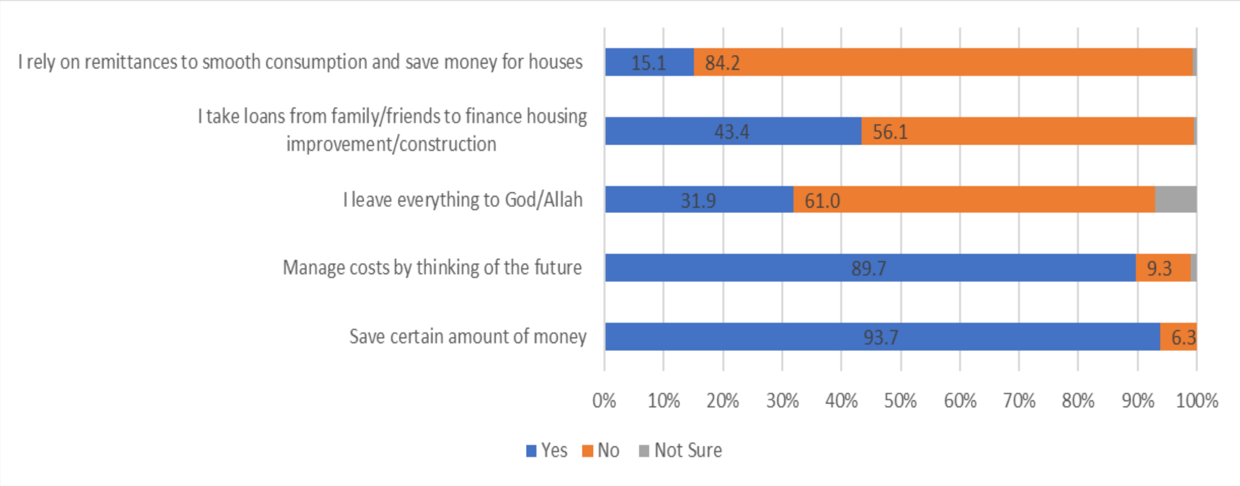
Figure 1- 13: Households Attitude towards Money and Spending (in percentage)



Source: Household Survey, 2023

In addition, most households (94%) put aside some parts of their income as saving for their future use (see Figure 1-14 below). Besides, they manage costs in consideration of their future fund requirements. Funds needed to finance housing construction or improvement could be raised from various sources, such as from formal financial institutions, personal saving, family/friends, and informal financial institutions. As shown in the Figure below, 43.4% of households borrow from their friends and families to finance their housing construction or improvement while 56% of households don't. Costs are managed by households in consideration of the future and only few leave their financial affairs to God.

Figure 1- 14: Households Financial Decision Making

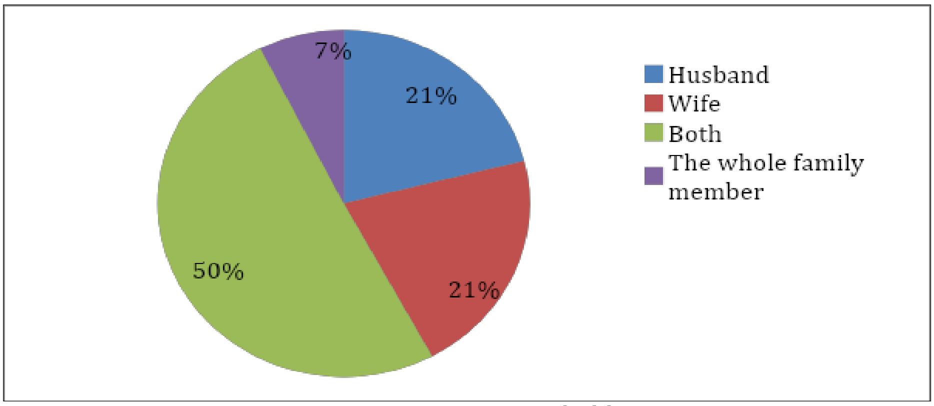


Source: Household Survey, 2023

B. PARTICIPATION IN FINANCIAL DECISION MAKING

As shown in Figure 1-15, in almost 58% of households, husband and wife collaborate, sometimes joined by other family members, to pass financial decisions. In the remaining 42% of the sampled households, financial decisions are made by either husband (21%) or wife (21%). Overall, it is encouraging that the participation of females in a household's financial decision is on par with that of males. Moreover, the participation of females in a household's financial decision making is not affected by level of education. For example, from 21 households that have no formal education, 17 households' financial decision making involves wives. Wives make financial decisions on their own in 10 of those 17 households. Only in 4 of those 21 households does financial decision making do not involve wives.

Figure 1- 15: Participation in Financial Decision Making

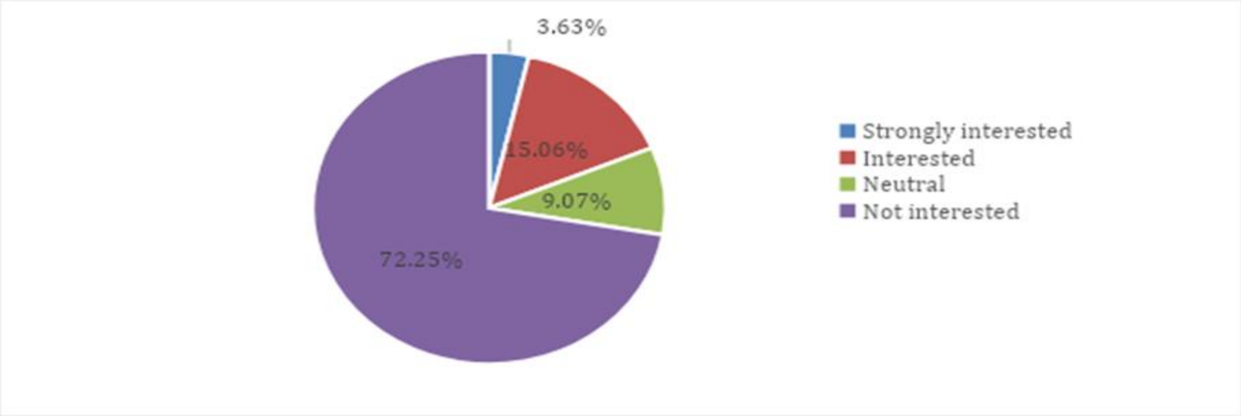


Source: Household survey, 2023

C. AWARENESS TOWARDS RISK and UNCERTAINTY

Uncertainty, the lack of certainty or sureness of an event, is inherent in investment decisions. Households were asked about their interest in transactions involving uncertainty and 72% of them are not interested in such transactions. Most of them do not change their position even after they gain from previous risky investments. Only 15% of the households are interested in transactions involving uncertainty. This low level of risk taking may relate to low level of financial literacy.

Figure 1- 16: Households Attitude towards Risk and Uncertainty



Source: Household survey, 2023

Diversification is the process of allocating capital in a way that reduces the exposure to any one particular asset or risk. Diversification helps households to wash out diversifiable risks. As shown in the table below 48% of households feel safe to invest in a single business or project while 49% of the households feel safe to invest in multiple businesses or projects. Thus, the majority of the households (51%) are not well informed of the importance of diversification-not putting all their eggs in one basket.

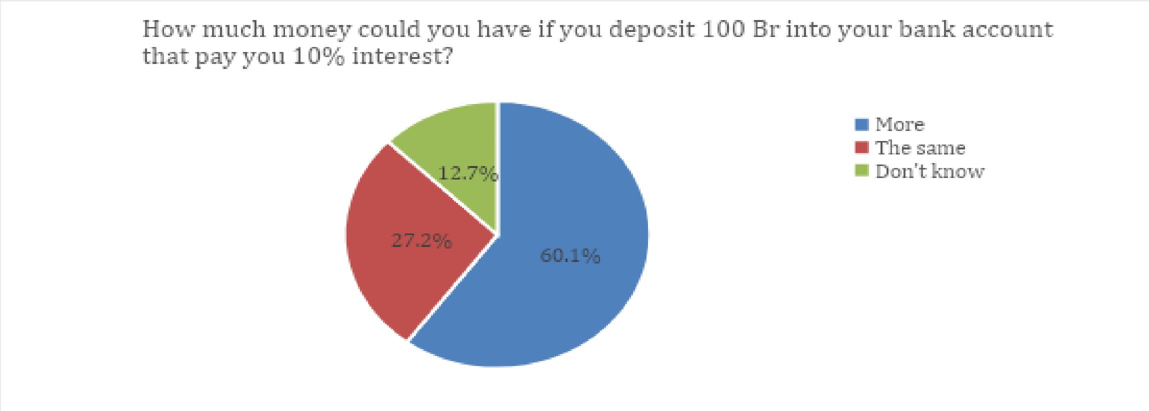
Table 1- 5: Households Risk Awareness

Suppose you have some money; is it safer to put your money into: one business	Freq.	%
One business or investment	345	48.12
Multiple businesses or investments	352	49.09
Don't know	20	2.79
Total	**717**	**100**

Source: Household survey, 2023

In addition, the Survey comprises questions about households' understanding of the time value of money. For example, as shown in Figure 1-17 below, 60% of households know that their account balance increases due to interest. The remaining 40% of households do not know about interest.

Figure 1- 17: Households understanding of time-value of money

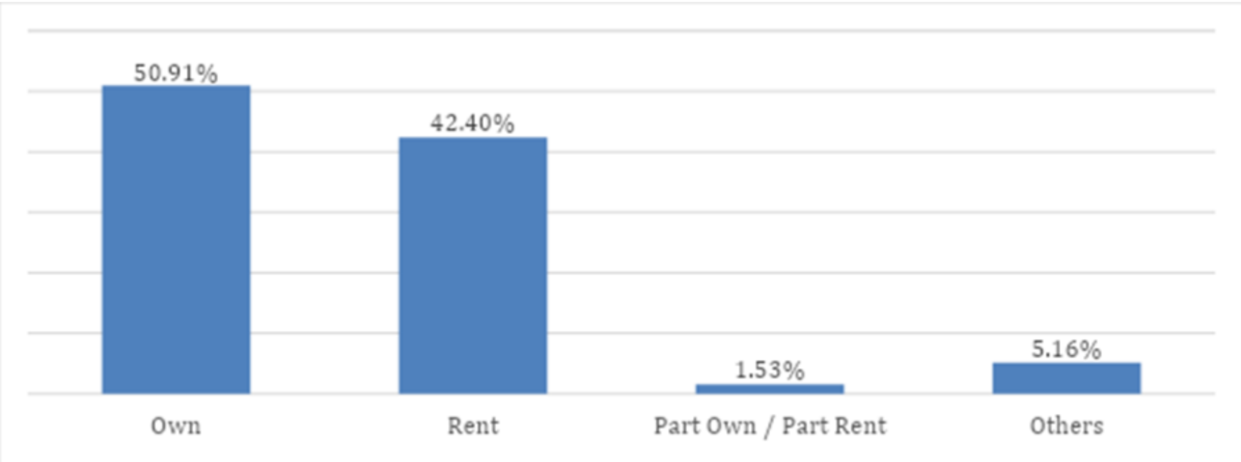


Source: Household Survey, 2023

IV. HOUSE OWNERSHIP

Of all the 717 households, 51% (376) live at least in a partly owned house, 42.4% in a rented house, and 5.2% of the households live either in a family house or kebele houses.

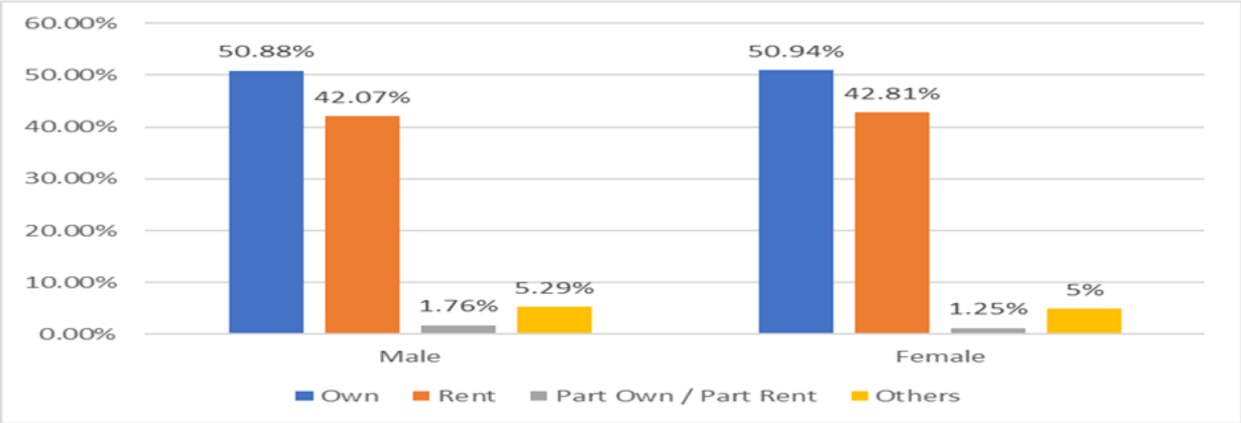
Figure 1- 18: Housing Tenure



Source: Household Survey, 2023

The survey results indicated that housing tenure is similar between male and females. As shown in Figure 1-19 below, 50.88 percent of male households live at least in a partly owned house compared to 50.94 percent for the female households. Besides, comparable proportion of male (42.07%) and female (42.81%) households live in rented houses.

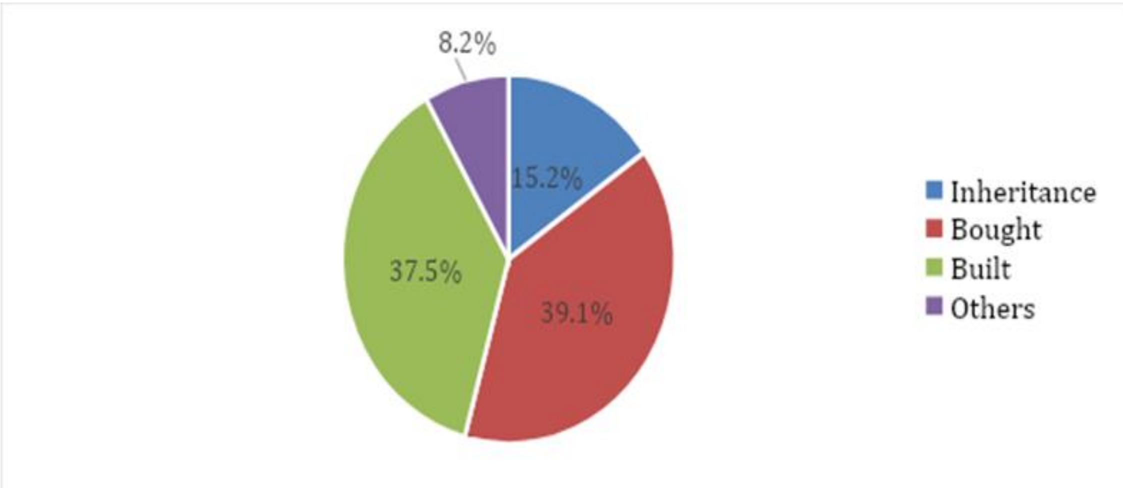
Figure 1- 19: Housing Ownership by Gender



Source: Household Survey, 2023

The study revealed that the mode of housing development and acquisition is mainly through purchase 147 (39.1%), construction from scratch 141 (37.5%), inheritance 57 (15.1%) and incremental construction 31 (8.2%).

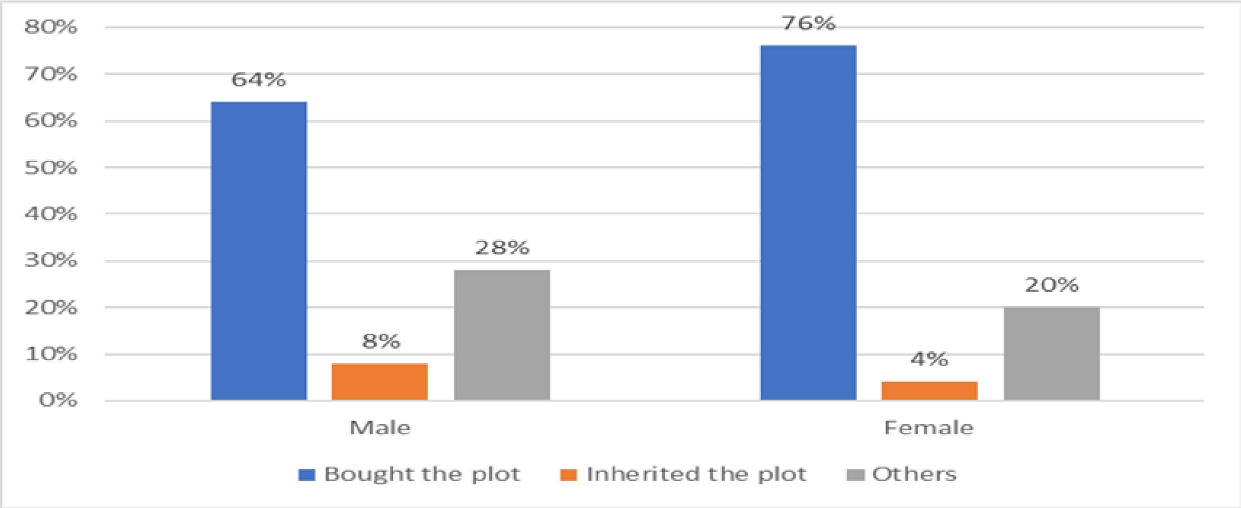
Figure 1- 20: Modality of House Ownership



Source: Household Survey, 2023

The households that built their house are asked about how they acquire the land in which their house is constructed and 64% of the male and 76% of the female respondents bought it. The 8% male and the 4% female respondents acquire the land through inheritance and the remaining households either get the land as a gift from the government or through lease.

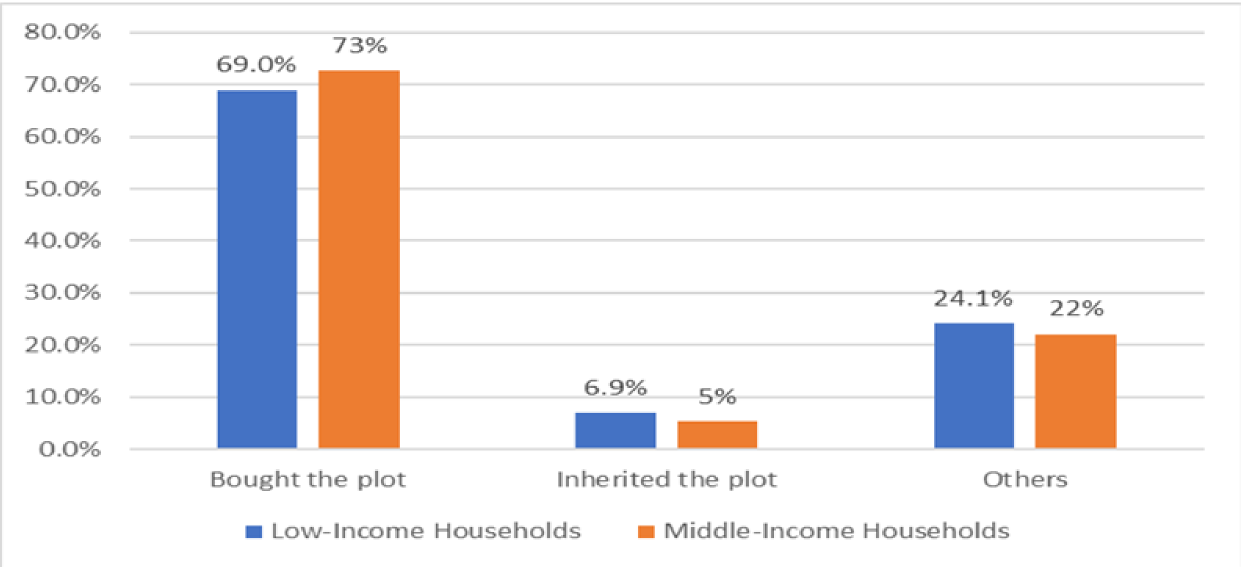
Figure 1- 21: Land Ownership



Source: Household Survey, 2023

As it can be observed from Figure 1-22 below, much variation is not observed between low-income and high-income households in the way they acquire land for their house. Majority of both low-income (69%) and middle-income households (73%) bought the plot of land on which they constructed their house. Only a small proportion of low-income and middle-income households acquire land through inheritance (See Figure 1-22 below).

Figure 1- 22: Land Ownership by Income level



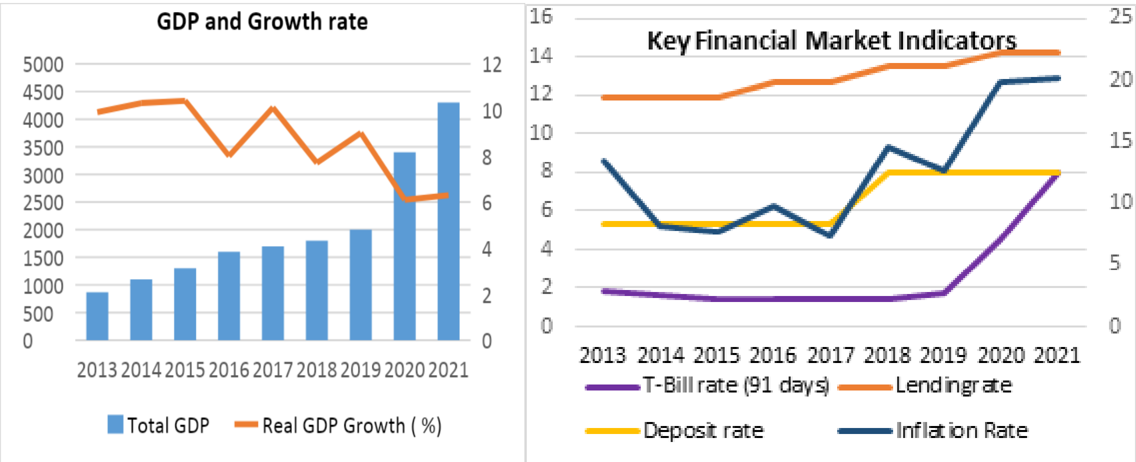
Source: Household Survey, 2023

2. Contextual Analysis to Housing Finance Ecosystem in Ethiopia

2.1. Overview of Ethiopia's Macro Economy

In the last decade and a half, on average Ethiopian economy registered a growth rate of 9.5% real gross domestic product (GDP), making it one of the fastest-growing economies in the world[5]. This economic growth came through capital accumulation due to significant public infrastructure investments in Ethiopia[6]. Ethiopia's GDP growth experienced declines in 2020 and 2021 to an average of 5.9%. This recession was mainly due to the impacts of the Covid-19 pandemic and worsened by debt vulnerabilities, the Northern Ethiopia civil conflict, and an increase in inflation mainly connected to a rise in food and oil prices due to the Russia-Ukraine conflict. Despite the country's rapid economic expansion, it remains one of Africa's low-income countries, with a GDP per capita of Br 49, 229 (US$944) in 2021. Real GDP growth fell to 5.3% in 2022 from 5.6% in 2021 but remained above East Africa's average (4.7% in 2021 and 4.4% in 2022). The African Development Bank (AfDB) forecasted annual growth in GDP 5.8% in 2023 and 6.2% in 2024. Ethiopia aims to become a low middle-income country by 2025. Since the year 2013, nominal GDP has more than doubled its value, recorded at 4,300.00 billion birr in 2021, with an average GDP growth rate of 8.5%. The high levels of growth that Ethiopia has maintained for over a decade could create conditions in which the property and housing finance market prospers.

Figure 2- 1: Key Macroeconomic Indicators



Source: National Bank of Ethiopia (2021)

With respect to inflation, Ethiopia has managed well to consistently keep it within the single-digit bracket from 2013 to 2016 (in line with NBE's mandate of ensuring price stability in the market). In 2021, however, inflation rose to 20.2%, fuelled by the COVId-19 pandemic, internal conflict, increasing international commodity and domestic food prices. The Treasury bill rate has remained positive and averaged around 2% since 2013, although it increased to 9.46% during 2022 and 9.64% in the first quarter of 2023 in response to rising inflation (NBE, 2023). Both lending and deposit rates have remained relatively stable over the past six years resulting in a very substantial notional spread of around 13%. The consistently large spread indicates that the banks' overall perception of the risk associated with their borrowing

[5] World Bank (2022). Country Overview – Ethiopia. 21 April 2022.

[6] ibid

clients has largely remained the same. Compared to deposit rates, high lending rates can also be attributed to limited competition in the finance market.

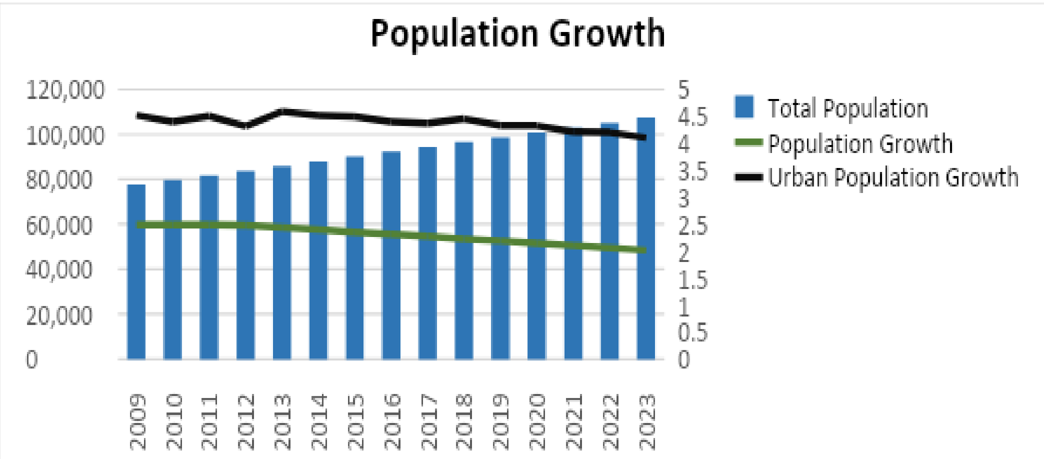
With deposit rates consistently below the inflation rate, most savers in the banking system face negative real interest rates. In 2021, the real interest rate was approximately -12.2%. As long as negative real deposit rates persist, there is little incentive for the average Ethiopian to save in the formal financial sector. This is consistent with (WB 2017) report while 62% of Ethiopians reported saving money, only 26 % saved formally at financial institutions, while 38% saved with a person outside of a family or at an informal saving club (for example, Equb which is a rotating saving and credit association where each member agrees to regularly pay a small sum into a common pool so that each, in rotation, can receive one large sum). During the same period, 41% of Ethiopians said they borrowed money, but only 11% borrowed from financial institutions. The rest borrowed from family or friends (31%) and 8% borrowed from a savings club. General reasons for not saving in the formal sector include, but are not limited to:

- An inability to access formal financial institutions due to geographic location
- High costs associated with opening and maintaining a bank account
- Perceived riskiness of institutions
- Low returns (negative in real terms)
- Savings tend to serve daily household requirements and emergency needs

2.2. Population Growth

Currently, Ethiopia being the second most populous and fifth least urbanized country in Africa is facing the pressing challenges of rapid urban expansion and growing urban housing demand. Based on Ethiopia's Central Statistical Services 2007 population projection, Figure 2-2 below mirrors Ethiopia's population, indicating growth over the past few years. In 2023, the population is estimated to be approximately 110 million. Moreover, the population is becoming increasingly young and urbanized. In 2021 alone, the urban population grew at 4.5%. This indicates that demand for housing will increase as this section of the population grows, seeks employment, and moves to urban areas. However, given the low levels of income it is only a few who will be able to participate in the formal housing finance market.

Figure 2- 2: Population Growth in Ethiopia



Source: Own computation based on ESS data

Generally speaking, the combination of high economic growth coupled with demographic changes and growing urbanization trends tends to bring the enormous potential for housing and housing finance growth in Ethiopia. This demographic shift shows that 33.8% of the total population are young people who are eager to own their homes. This poses a significant challenge to the already existing urban housing shortage due to an increasing demand for new houses. Moreover, the migration, job growth in services and manufacturing sectors and remittance flows have led to a plentiful middle class, willing and able to pay for a home, but these factors also have pushed up urban property prices. Evidence indicates that less than 15% of Ethiopia's urban population can qualify for or afford conventional housing finance.[7] It can be argued that Ethiopia's change in demographics will involve a momentous rise in a demand for unconventional housing finance, which requires the urgency of supplying alternative and affordable housing finance options for Ethiopia's growing population.

2.3. Housing in Ethiopia: Demand and Supply

Ethiopia is one of the least urbanized countries in the globe (UN-Habitat, 2014, p.11; Larsen et al., 2019) and its urban population accounts for 21.6% and is increasing by 4.7% annually (CAHF, 2021). Nevertheless, the level of urbanization is starting to change dramatically. Other estimates by the World Bank (2015) depict an annual growth rate of 5.4% that will make the country's urban population to triple by 2028. According to the forecast by Central Statistics, it is predicted that 42.3 million people will live in cities in the year 2037. According to predictions from 2015, almost four million new urban households will exist in Ethiopia by 2027 and 9.7 million by 2037. The following section describes the details of demand and supply of housing in Ethiopia.

2.3.1. HOUSING DEMAND AND SUPPLY

The Ethiopian Development Research Institute [EDRI] (2018), estimation of 2016, showed that the amount of housing units in the country is at around 4,500,000; 74% are below standard; out of which 30% require replacement. Between 2015 and 2025, the demand for urban houses is predicted to be 471,000, and between 2025 and 2035, 486,000 urban houses are expected to be needed annually (WB, 2019). Specifically, in the registration conducted in Addis Ababa in 2005 alone, nearly one million house seekers were registered, and in the last 10 years after the registration, there are more than 20 thousand house seekers. The Revised Housing Development Strategy prepared by the Ministry of Urban Development and Infrastructure [MUDI] (2021) estimates the current urban population in Ethiopia at 22,000,000. According to MUDI (2021), considering an average of 3.7 household size, there are 5,500,000 households in the country. Based on this, the strategy estimates a housing deficit of 1,000,000 i.e. 5,500,000 – 4,500,000. Further, MUDI's strategy estimates a housing need of 3,514,000 and 999,000 resulting from the coming 10 years' population increase and the need for replacing dilapidated housing, respectively. Specifically, the housing shortage is severe in the capital, Addis Ababa. Thus, according to MUDI's housing strategy, for the coming ten years (2021-2031, in line with the country's 10 year development strategy), the total housing need is estimated at 5,513,000; including backlog, new housing and replacement of existing settlements. According to the World Bank (2019), the housing demand (including new demand and existing housing needs to be demolished and replaced) will be 471,000 and 486,000 houses per year by 2025 and 2035, respectively. On the other hand, the housing supply is 165,000 per year from 2008/9 to 2013/14, which is far lower than the annual demand of 381,000 housing units (World Bank, 2015). This is also largely aggravated by the inadequacy of the strategies designed for housing supply and the housing deficit rolling on without being solved.

In the other dimension, the country displays one of the highest levels of urban population living in informal settlements in sub-Saharan Africa (World Bank, 2015). According to UN-Habitat estimates, 70 to 80% of Ethiopian urban dwellers

[7] The State of African Cities 2010.

live in slums (CSA, 2007). According to this information, 80% of houses in the country are made of mud and wood; 66% of their floor is mud; as many as 46% are of narrow, one-room houses; 28% are not decent houses.

In Ethiopia, the government, individuals, and private investors all play different roles in providing housing for residential and commercial purposes. Therefore, the government and these other developers would implement the housing provision in the following eight ways, of which four will carry out with the government's coordination. The government sponsored condominium housing (Integrated Housing Development Program [IHDP]) was the major initiative taken by the government to make housing affordable to the majority of the low and middle-income people. These are housing construction for low-income people (10/90), maintaining the construction of condominiums (20/80), construction of residences that promote saving practices (40/60) programs, and supporting housing construction intended for particular purposes). These figures 20/80, 10/90, 40/60 refer that the beneficiary is expected to save 10%, 20%, 40% of the house value in a closed bank account while the remaining 90%, 80%, and 60% will be covered by commercial banks of Ethiopia, respectively. The beneficiary could continuously save to fulfil saving requirements and to join the list of eligible for having the house through the lottery system. The other actors are the private sector (housing provision by investors (Real Estate) and housing provision by individuals), housing cooperatives, and the joint effort of the government and private investors (MoUDHC, 2013). Despite these options, the supply didn't meet the growing housing demand across the country.

With the exclusion of private house builders, about 384,107 government sponsored condominium houses, 151,997 Cooperative houses and 21,314 commercial real estate houses were constructed in the transformation plan period of 2011 to 2020 (Ministry of urban and infrastructure, 2020). This shows that in addition to providing land and infrastructure, it is the government that bears the responsibility of providing housing. This cannot be a permanent solution to housing problems. The government has thus far supplied about 400,000 housing units through IHDP, which started in Addis Ababa in 2005 and in other regions of the country in 2008. However, according to the World Bank (2019) the lowest two quintiles in the income pyramid cannot afford IHDP. Next to the IHDP, the other housing delivery strategy that has been in place is cooperative housing, mainly targeting the middle income and civil servants. In 2005, a significant amount of cooperative housing was organized and supplied with land and technical support. However, to date several of the cooperative sites remain unoccupied, mainly for lack of finance. Following a long lull in the provision of cooperative housing, the Addis Ababa city is currently organizing IHDP registrants willing to shift into cooperative housing. Despite the government supported IHDP and cooperative housing, however, the reality on the ground shows most of the middle and low-income people are housed in self-financed incremental housing, often built by micro-builders and informally. When it comes to housing supply, rental housing, rather than home ownership, is increasingly expanding. And in the rental market, not the government, but the private sector takes the lion's share (EPI, 2022). See table 2-1 below. Regarding rental housing, according to MUDI (2021) tenants pay 53% of their monthly income as rent at national level while this amount increases up to 63% in Addis Ababa. According to CAHF (2021), up to 75% of rented units are provided by the private sector, with the state providing the remaining stock through kebeles[8]. As shown in Table 2-1, rental houses are supporting about half of the tenure arrangement.

[8] Kebeles are the lowest administrative unit in Ethiopia. The houses owned by these public bodies are named as "Kebele houses" . The administrative units are sequentially federal, region, Zone , Woreda, Kebele.

Table 2- 1: Housing quantity by tenure in cities

Housing share by year									
		1984		1994		2008		2016	
No	Tenure	Qty	%	Qty	%	Qty	%	Qty	%
1	Private house ownership	475,441	48.70	697,176	47.06	1,138,690	39.31	1816,327	38.96
2	Rental	426,800	43.72	642,907	43.39	1,557,374	53.76	2,506,811	53.77
2.1	Kebele rental	426,800		347,919		345,428		342,955	
2.2	Private rental	0		294,988		1,169,114		1,825,041	
3	Other	73,939	7.57	141,506	9.55	200,955	6.94	338,815	7.27
	Total	976,180	100	1,481,589	100	2,897,019	100	4,661,953	100

Source: PSI (2022) Addis Ababa city 2014 Land tenure data; Matsumoto, T. and Crook, J., (2021)

Given the largely unmet housing need coupled with the small number of mortgages, low level of microfinance lending, the unsustainability of the IHDP, the unaffordability of cooperative housing, and the potential of incremental housing, it can be said that there is a huge potential for financing (CAHF, 2021).

2.4. Situation Analysis of Housing Finance in Ethiopia

2.4.1. RESOURCE ALLOCATION TO THE HOUSING SUBSECTOR

In the past decade, the national economic growth has created opportunities and threats to housing. The growth of the economy creates a capacity to invest in the housing sector. However, it is also a challenge that most are also using it as wealth storage for its profitability and inflation hedging. It is a threat that the saving is shifted to housing and has the possibility of distorting the balanced growth. It is also possible to observe the contribution of the housing project savings to the total deposits of the banking system. As shown in Table 2-2, it has a considerable contribution that continuously increased from the year 2013 to 2016 and then started to decline.

Table 2- 2: Housing and Construction Sector Resource Mobilization in million Birr

Year	Agriculture	Industry	Service (Domestic and International Trade, Hotels and Tourism, Transport and Communication)	Housing and Construction	Share of housing and construction sector	Share of Industry	Share Agriculture
2008/09	3,037.45	2,668.30	14,608.23	4,040.19	**15.86**	10.47	11.92
2009/10	4,437.05	4,958.18	14,672.61	3,915.99	**13.55**	17.15	15.35
2010/11	8,247.98	10,465.17	19,579.02	2,900.86	**6.87**	24.78	19.53
2011/12	14,175.44	16,511.90	19,135.51	5,083.40	**9.06**	29.43	25.27
2012/13	9,709.23	19,298.37	17,074.06	6,322.91	**11.65**	35.57	17.9
2013/14	10,867.55	20,391.10	19,130.80	6,695.76	**11.17**	34	18.12
2014/15	13,077.12	23,437.45	29,249.81	6,720.10	**8.9**	31.05	17.33
2015/16	13,375.73	25,495.59	30,956.40	13,641.95	**15.5**	28.96	15.2
2016/17	13,133.71	25,035.60	46,242.18	13,583.64	**12.46**	22.97	12.05
2017/18	11,401.86	30,503.03	45,265.60	12,281.39	**10.64**	26.43	9.88
2018/19	17,954.71	41,585.75	68,138.21	19,634.95	**11.94**	25.28	10.92

2019/20	24,902.36	43,074.11	83,676.02	22,834.56	**11.46**	21.62	12.5
2020/21	30,779.85	60,607.06	130,381.12	30,943.06	**10.83**	21.21	10.77

Source: National Bank of Ethiopia, 2022[9]

The housing and construction sub sector has a huge growth contribution to the economy, accounting for about 25%. Although housing and construction, in national production, takes the lion's share of the manufacturing sector, the National Bank report of 2020/21 shows that the average share of resources allocated to it in the last ten years is not more than 12% of the regular loan (See Table 2-2 above). It is possible to say that loan for the housing and construction sector is low, that its average share in the last 13 years is 11.53%.

Absence of a diverse housing finance system for various income groups is one of the constraints to housing finance. The government has discontinued subsidized mortgages for private home builders. Banks only offer mortgages interest rate of up to 16% for a limited time from 10-20 yrs. Instead, the government focused on building condominiums for low and middle-income earners. Government bonds are used to finance condominium construction. Individual beneficiaries of condominium units built under the IHDP/ Integrated Housing Development Program/ can obtain mortgages from the government-owned Commercial Bank of Ethiopia at 9% interest for 15 - 20 years (Berhe, et al., 2017).

Ethiopia's housing finance sector is still in its infancy stage. The development of either savings banks or long-term financing facilities in the nation has been hampered by the absence of such a market. Poverty, low-income level, underdeveloped financial system, high-interest rate, and inflation are the main factors stated in different works of literature for the inaccessibility of housing finance for households in Ethiopia (Ayenew & Martin, 2009).

Doling et al. (2013) claimed that housing finance in developing nations, such as Ethiopia, is confined to individuals with high and consistent income levels. Borrowers must make an initial down payment of 30% or more of the unit's value to receive housing finance, and the mortgage amount may be considerable compared to income (Senbeta & Batra, 2020).

2.4.2. POLICY OF FINANCING HOUSING DEVELOPMENT

There is a lack of a lending system that only serves for the construction of residential houses undertaken by the government or other development partners. Policies and strategies have therefore been devised to establish a framework of equitable lending services and sufficient and lasting financial resources based on the saving practices of individuals. Accordingly, the country’s Urban Housing Provision Strategic Framework of 2013, the government of Ethiopia has enacted the financing housing development as a policy with the following five policy directions:

- The government will urge the Commercial Bank of Ethiopia to provide loans for beneficiaries of the 10/90, 20/80 and 40/60 programs The program (10/90 & 20/80) began in 2005 and has been implemented in 56 towns across the country to date, but the 40/60 program was only in Addis Ababa, and the greatest impact had been seen in Addis Ababa.
- The interest rates for those undertaking the construction of houses under these schemes will be made reasonable. Caution will be taken so that the financial assistance process will be transparent, correctly differentiates customers and cause no imbalance in the housing market.
- The financial resources necessary to provide 40/60 saving houses to middle-income earning citizens will be sourced from these beneficiaries and the bank: the former will provide 40% and the latter 60. Similarly, 20% and 10% of the funds needed for housing development programs (for condominiums and very low-income earners, respectively) for low-level income citizens will be provided respectively by the saving practices of beneficiaries and the government’s trade in bonds supplied by banks.

[9]The National Bank of Ethiopia has no disaggregated data for housing

- The financial cost of houses built by housing cooperatives, bureaus, institutions and similar establishments will be completely covered by the establishments as mentioned above; 50 per cent at registration and the remaining 50 per cent after the land is prepared, but before getting the construction permit.
- Loans from government banks will not be provided for real estate developers.

In Ethiopia, since land is owned by the government, the housing provision will be optimized and sped up when the government provides infrastructure and land and the private sector provides financial capital and technology. There is a lack of a lending system that only serves to construct residential houses undertaken by the government. Homebuilders need finance to acquire land and build residential purposes as well commercial buildings. Thus, it is clearly understandable that an individual needs to provide own capital and borrow from financial and non-financial institutions. The finance that commercial banks offer at a limited level has been restricted in the past due to the idea that the national savings are small. Above all, most home seekers have low income. In some developing countries, the main source of finance for home users is the mortgage calculation of the financial market. However, in Ethiopia, the option is limited unless it is for IHDP users only with the guarantee given by the government. Under the IHDP, the land is provided for free or at a very low price. The government also purchases and supplies construction materials for IHDP at below-market costs. The Commercial Bank of Ethiopia grants subsidized interest rates on the mortgage loans provided by IHDP.

2.4.3. HOUSING FINANCE INSTITUTIONS IN ETHIOPIA

Ethiopia glaringly lacks a flexible and varied housing finance market. Below are some of the institutions that provide housing finance

A. THE CONSTRUCTION AND BUSINESS BANK (CBB)

CBB, originally known as the Housing and Savings Bank, was the country's first mortgage bank in the early 1970s. It has been crucial in extending housing loans over time, helping to finance the construction of thousands of homes. The only bank that provided long-term mortgages to purchase housing for a long time was the CBB. The National Bank used to provide a significant portion of the capital for the Bank. The CBB had a significant capital constraint that prevented it from reaching more clients or potential homebuilders, especially low-income households. The CBB is now merged with Commercial Bank of Ethiopia and it does not exist anymore.

B. COMMERCIAL BANK OF ETHIOPIA (CBE)

The country's largest and most influential Bank is the Commercial Bank of Ethiopia (CBE). It controls most of the banking sector, roughly half of all bank capital, giving it access to massive resources. CBE has the potential to play a significant role in developing Ethiopia's housing financing industry. The CBE's mortgage financing of the IHDP is a fantastic first step towards this. Other lenders, predictably, have not been drawn to this arrangement because of CBE's subsidized interest rates. For the CBE to be a significant player in the housing finance industry, a shift in government policy and creative leadership from the Bank's management is required.

C. PRIVATE BANKS

Ethiopia's private banking and insurance industries have advanced significantly in a relatively short period of time. The private commercial banking sector plays an important role in the finance industry, which took nearly 50% of the banking and insurance sectors in a little more than 15 years (Ayenew & Martin, 2009). The current share reached 58.5% in 2021/22. However, their participation in the housing market is relatively constrained, for several reasons, including, a lack of experience, lower profitability, and risks related to long-term financing. As a result, there are significant challenges associated with the limited capital for making investment in the housing finance market. Furthermore, short-term loans are preferred by commercial banks. The housing financing industry has a negligible influence on the growth of the larger financial system due to the low degree of formal housing finance institutions' penetration.

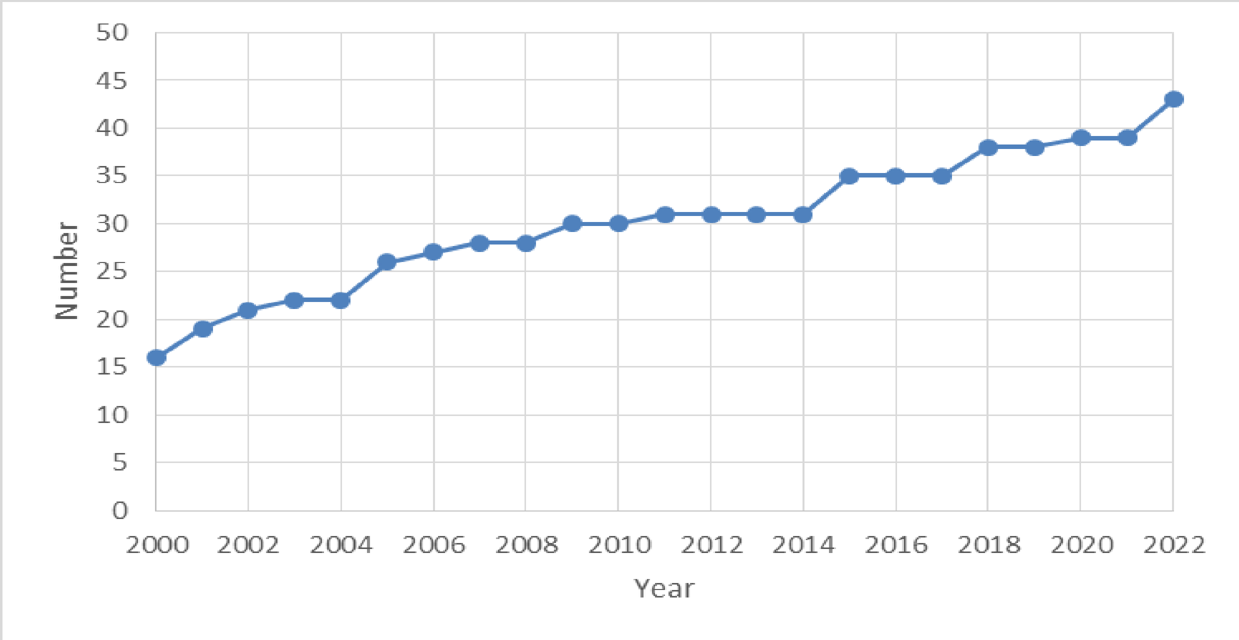
Ethiopia's lack of functioning housing markets impedes the establishment of savings banks and long-term lending facilities. In other nations, risk-taking finance is provided through venture capital institutions, which do not exist in Ethiopia. Due to the high-interest rates on mortgages, the small number of mortgage providers, and the substantial collateral requirements to acquire credit, affordable financing for the purchase of housing is insufficient (UN-Habitat, 2017). The inclusion of Goh Betoch Bank S.C., which just began operations in 2021 (Ethiopia Monitor, 2021), may start to have an effect. Government-subsidized housing, on the other hand, only benefits the upper and high end of the market because of the affordability gap in the housing market, which leads the poor to informal settlements (World Bank, 2019).

Goh Betoch Bank is a new entrant to the financial industry at a time when Ethiopia's housing market is either non-existent or very small. This is because a mortgage is still a rare and unsettling idea for most families in this country, even well-off ones, due to the long-term financial consequences it poses to households. The Bank has opened four branches, i.e., three in Addis Ababa and one in Dire Dawa City Administration (but now added Bahirdar, Adama and Hawasa city administration branches) and it has managed to mobilize Birr 256.6 million deposits from its 5,023 customers, with total assets reaching Birr 1.2 billion. Outstanding loans and advances of the Bank reached a total of Birr 298.5 million at the end of FY 2021/22, and the number of borrowers was 37. The Bank extended loans and advances to various sectors of the economy. Out of these, the largest portion of the loan portfolio went to commercial mortgage/real estate, which makes up 36% of the total loans and advances of the Bank. Subsequently, residential and diaspora mortgage loans constituted 33% of the total loans and advances, followed by international trade with a 17% share. The remaining sectors, on aggregate, comprise 14% of the Bank's total credit portfolio. Goh may therefore provide a backup source of funding for the housing finance market. It provides financing loans for the purchasing, construction, expansion, and renovation of residential or commercial dwellings (Goh Betoch Bank, 2022). These are: (1) Mortgage loan for purchase of house, construction of new house, renovation of existing house and expansion of existing house; (2) Consumer loan for personal loan, vehicle loan, home equity loan and house furniture & equipment; and (3) Construction loan for real estate developers.

D. MICRO FINANCE INSTITUTIONS

The Ethiopian microfinance sector is growing fast, and it has recently progressed from humanitarian orientation to combining outreach and viability missions (Ayele, 2015). According to the annual report of the National Bank of Ethiopia (2022), at the end of June 2021/22, the number of banks reached 30 and microfinance institutions 43. Ethiopian Microfinance institutions have increased significantly over the last 22 years, as shown in the trend (Figure 2-3) below (NBE Annual Report, 2021/22). Proclamation No.84/1994 clearly states that foreigners are not allowed to own MFIs but can start joint ventures with Ethiopian MFIs.

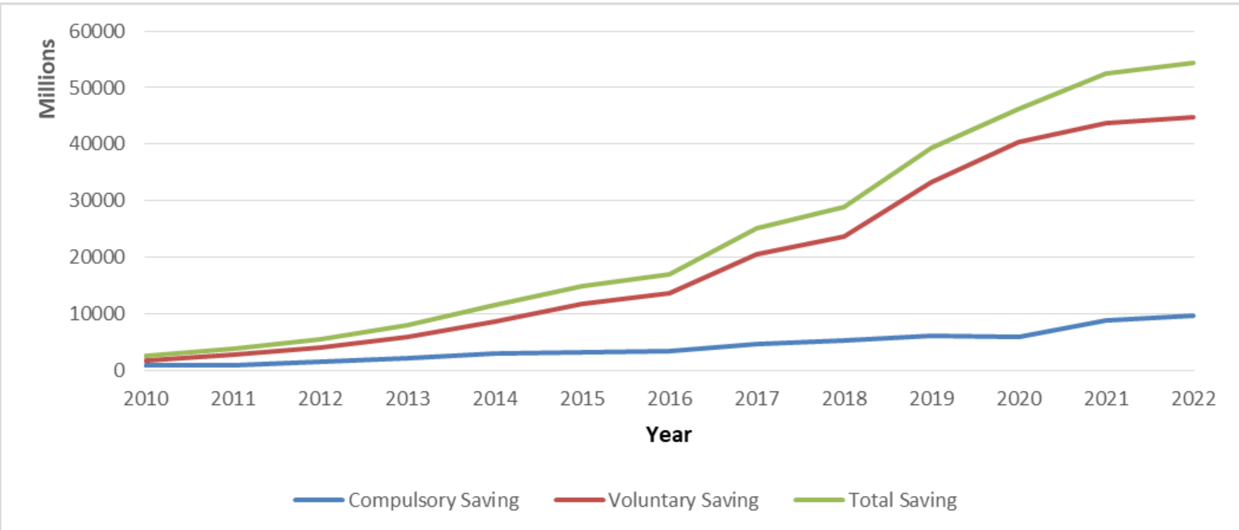
Figure 2- 3: Growth of Microfinance Institutions in Ethiopia



Source: National Bank of Ethiopia- Annual Report (2021/22)

The unsaturated market, less competition, loose infrastructural and low minimum capital requirement for licence (Birr 200,000 in 1996 and since 2022 it is 75 Million Birr), the stimulation of the government as a means of poverty reduction has contributed to the remarkable growth of microfinances over the past decade.

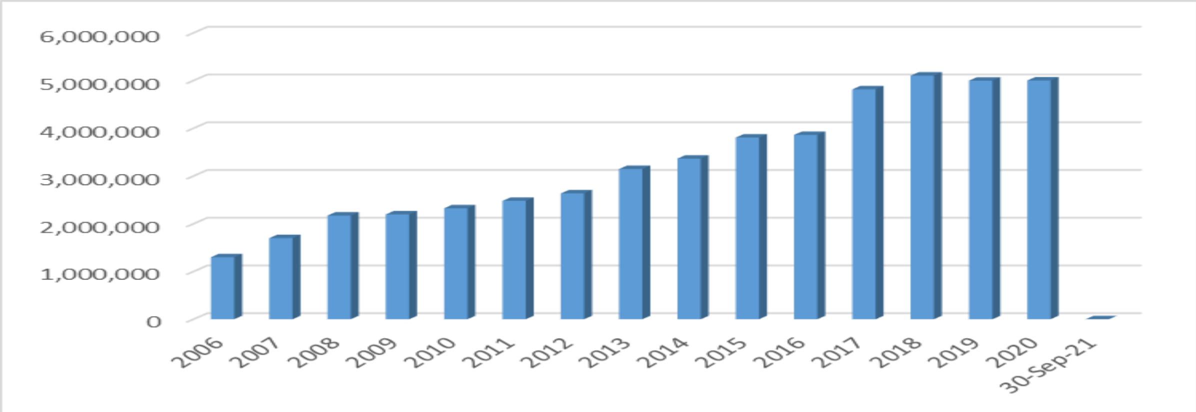
Figure 2- 4: Growth in savings at Micro Finance Institutions



Source: Association of Ethiopian Microfinance Institutions (AEMFI) (2023)

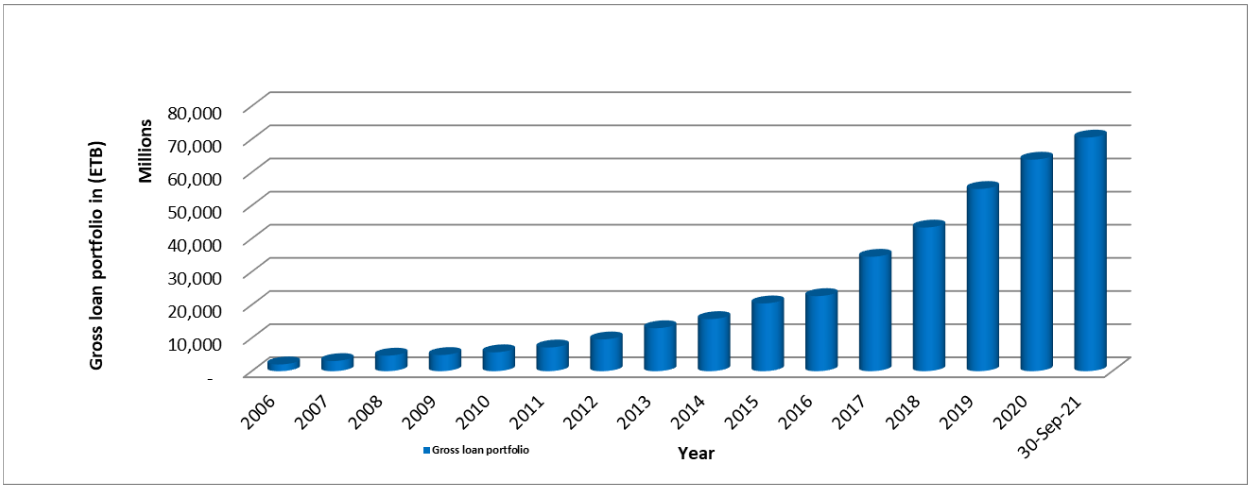
As shown in Figure 2-4 & 2-5, the amount of savings and number of active borrowers is increasing across periods. The national bank of Ethiopia in its directive MFI/28/2016, proclaimed that microfinances can make loans without collateral, secured by collateral or secured by group or individual guarantees as appropriate at the discretion of the institution. The total loans extended by a microfinance institution to any single borrower shall at no time exceed one percent of the total capital of the microfinance institution. The maximum repayment period of a loan extended by a microfinance institution shall be 15 years for housing loans and five years for all other loans and advances. The direction of the government towards microfinances is to reduce poverty by providing loans and saving services by using the group-approach lending system. These directives have significantly contributed for the expansion of saving and loan provision for a large number of users. Evidence shows that the saving habit of the rural population in microfinances is increasing across time. The farmers' means of accessing agricultural inputs (fertilizer and seed) are a microfinance that obliges them to open accounts and save in these institutions.

Figure 2- 5: Number of active borrowers of MFIs in Ethiopia



Source: Association of Ethiopian Microfinance Institutions (AEMFI) (2023)

Figure 2- 6: Ethiopian MFIs Gross Loan Portfolio Trend



Source: Association of Ethiopian Microfinance Institutions (AEMFI) (2023)

Out of 39 MFIs, twelve MFIs give housing loans with an interest rate of 14-30% per annum with different criteria of interest-free saving, institutional saving and time deposit saving products. For instance, in Awach SACCOS, the loan interest rate for women is 13% per year and for men 13.5% per year for social, health, and education loans; 14.5% per year for automobile and business loans, and 15.5% per year for house loans. The interest is paid on the remaining loan balance in the amortisation calculation system.

E. SAVING AND CREDIT CO-OPERATIVES (SACCOS)

Cooperatives have played an important role in achieving the growth and poverty reduction strategy by encouraging income-generating activities and enhancing rural and urban communities' access to financial services (Tesfamariam, 2015). The saving and credit cooperatives aim to build a saving culture and facilitate credit with a fair interest rate for the members. These cooperatives play a significant role in providing loans for members that can be used for multiple purposes, such as housing, education, health, and starting businesses, inter alia. SACCO offers low-quality products and services that take a long time to obtain. Whereas the Bank provided high-quality products and services that could be accessed at any time, place, or condition. In SACCO, the member should save regularly for at least six consecutive months, which amounts to 25% of the requested/needed loan amount. The borrower should bring at least one member from the cooperative as a guarantee. In contrast, Banks offer loans based on collateral.

There are almost 23,963 Savings and Credit Cooperative Societies in eleven regions, two city administrations, and the federal level in Ethiopia. As shown in Table 2-3, 60.48% are female users, showing the significant engagement of females in the social associations.

Table 2- 3: National Savings and Credit Cooperative Societies (SACOOS) General Information from 2018/19 up to 2022

No	Region	Number of associations	Capital of SACOOs	The savings amount in Birr	Loan amount given to members of Birr	Members who took loans		
						Male	Female	Total
1	Oromia region	9,254	1,848,994,362	8,273,171,262	10,521,845,799	1,440,369	3,111,290	4,551,659
2	Amhara region	3,695	1,200,541,545	4,784,171,873	15,748,129,991	657,735	328,092	985,827
3	South Region	6136	1,371,772,384	1,916,350,883	1,664,582,830	166,785	166,260	333,045
4	Southwest Region	4	195,057,107	537,310,199	-	-	-	-
5	Sidama region	77	285,022,844	1,464,471,862	454,976,235	51,109	21,119	72,228
6	Addis Ababa City Administrations	2,232	2,919,989,147	16,024,244,154	11,312,455,864	92,027	105,453	197,480
7	Benishangul Gumuz region	205	84,681,773	27,513,180	47,684,471	23,093	31,863	54,956
8	Dire Dawa City Administration	228	29,486,869	117,330,523	369,062,181	10,664	10,831	21,495
9	Harare region	86	26,026,254	54,939,444	8,788,899	657	772	1,429
10	Afar region	407	4,585,316	33,466,257	90,040,274	226	209	435
11	Gambella region	84	3,512,483	460,000	-	-	-	-
12	Somali region	422	318,000,745	48,127,498	271,108,765	1,706	6,148	7,854
13	Tigray region	1125	2,136,994,922	989,034,469	997,279,176	31,799	23,486	55,285
14	Federal	8	1,454,277,618	4,403,992,398	5,494,674,054	15,330	8,968	24,298
	Total	**23,963**	**11,878,943,369**	**38,674,584,002**	**46,980,628,538**	**2,491,500**	**3,814,491**	**6,305,991**

Source: Ethiopian Cooperative Commission (2023)

While the above discusses the Ethiopian housing finance experiences, the following highlights the best practices from successful initiatives from different countries of the world. Various countries have put in place policies and strategies in order to enhance their housing finance targeting the low and middle income groups. In this regard, the experience of countries such as South Africa, Kenya, India and Bangladesh can be cited. The fundamental measure taken by these countries is the engagement of the private sector with a focus on housing microfinance products, including housing support services (CAHF, 2022; Desai, 2014; Marias & Cloete 2017, Rahman, K.K., 2009). South Africa has employed strategies for allowing free information on housing finance aiming at fair lending practices, short term micro lending for low-income groups with less strict risk requirements and the provision of employees' loan security through pension funds (UN Habitat, 2018). Bangladesh is well known for its community-led initiatives financed by using seed funding and by setting up saving groups in the community, led by women, in which MFIs provide long- and short-term credit for housing using group pressure and mutual support as guarantees for loan repayment, without collateral (Rahman, K.K., 2009). On the other hand, Kenya and India have put in place a mortgage refinance company to provide liquidity financing to Primary Mortgage Lenders (PMLs) who would then lend to borrowers at below-market interest rates, and with longer payment periods (CAHF, 2022). Further, Kenya has taken steps in encouraging and facilitating Mobile lending for individuals with unstable income (Ibid, 2022). India issued regulations regarding caps on interest rates and the creation of credit information bureaus to prevent over-lending by MFIs to address concerns related to high-interest rates and over-indebtedness among low-income households (Desai, 2014).

While the preceding experiences are from developing countries, developed countries such as Canada and Singapore have also rich experiences on housing finance for low and middle income groups. The use of FinTech in Canada in enabling, among others, faster mortgage loan processing, more accurate risk analysis, access to remote areas, reducing personal bias towards minority groups, cost reductions and operational efficiencies for lenders can be cited (CMHC, 2020). Singapore's use of savings of provident funds for housing finance, to which employees and employers contribute, which is: state-managed, tax-exempted compulsory social security fund is also worth consideration (UN-Habitat, 2005 citing Chin Beng, 2002).

3. Housing Finance Market Analysis

3.1. Housing Finance Value Chain Mapping

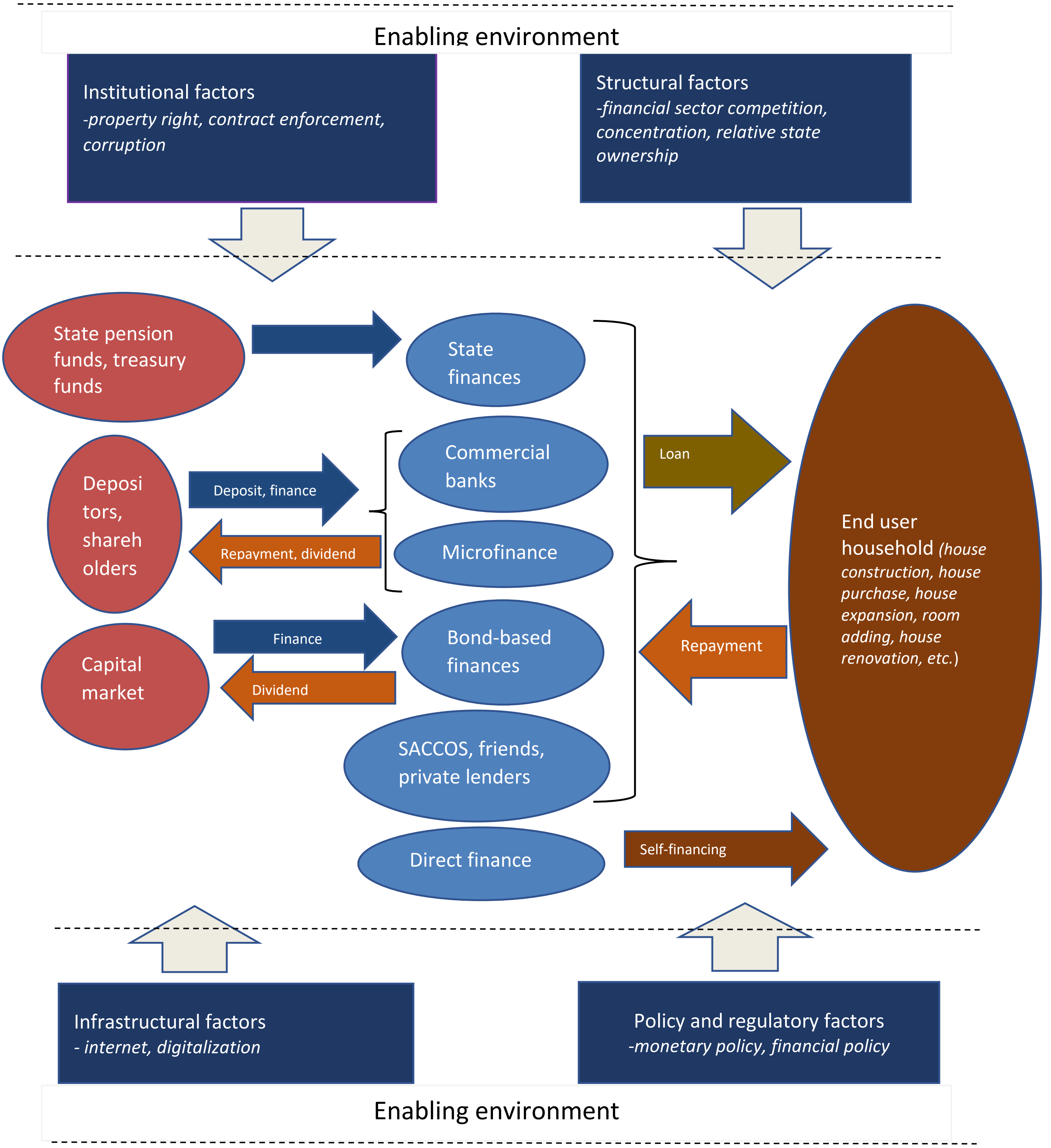
There are different actors in housing finance both in the supply and demand aspect of it and as such playing different roles in the value chain of housing finance. The supply side of housing finance consists mainly of the providers of the finance related to housing; these actors include financial institutions (being both formal and informal ones), the government, private lenders, and direct financiers. Although these actors are direct suppliers of housing finance, as output, there are others who supply these finances, as input, in different ways. For instance, formal financial institutions such as banks and informal ones including microfinances mainly mobilize finances in the form of deposit form depositors. Moreover, government and other sources also mobilize loans extended for housing finances through selling bonds in the capital market. Therefore, there are different sources of finance from several actors apart from the final lenders of housing finance. The other major actors in housing finance are the end users, households, as borrowers of housing finance, that give rise to the demand side of housing loans.

The major actors in the supply of housing finance are depository financial institutions, both formal and informal institutions. ; While the formal financial institutions are dominated by commercial banks, the informal ones are mainly microfinances. These institutions finance housing loans by different means including through deposit mobilization. And as such, depositors play an indirect role in the housing finance value chain by depositing; such deposits are used as input in the housing finance while loans, that households borrow for housing purpose, are outputs. Besides mobilizing finance from deposit, depository financial institutions may use selling shares as sources of loan for housing. Although depository financial institutions seem alike in many ways related to housing finance provision, they target different segments of households; for instance, commercial banks mainly target the high income and well collateralized segment of the market that is largely associated with the formal sector while microfinances cater to the middle income and collateralized segment. The other major player in the supply of housing finance is the state which finances housing loans through different mechanisms including state pension funds, treasury funds and other state enterprises. The bond-based finance that mobilizes the resources by selling mortgage bonds in capital markets largely targets the collateralized, formal sector, and middle- and- high-income segments.

The state housing finance uses different sources, such as state pension funds, treasury funds, and state banks, to mobilize housing finance catering different segments of households. Direct finance that is not mediated by financial institutions such as banks or state institutions, may represent cases of different income groups depending on whether households are directly financing their housing due to either being unable to access housing loans or their ability to access housing finance through other mechanisms such as self-sufficiency.

The end users of housing finance are households that use the finance for purposes related to housing and as such households' role in the housing finance value chain arises from the demand side of finance. Households may use the housing loan for different purposes related to housing including for house construction, purchase, renovation, expansion, repair, and improvement. Moreover, housing loans can be used for energy efficiency, wash improvements, and disaster recovery. The loan can also be used for land acquisition for housing purposes.

Figure 3- 1: Overall Value Chain Mapping of Housing Finance in Ethiopia



While the housing finance value chain can be considered using the direct actors discussed above, the actors operate within the enabling environment of the country that consists of different factors including institutional, infrastructural, structural, and policy circumstances . Therefore, the overall value chain mapping of the housing finance accounts not only for the direct actors in the finance but also the enabling environment within which the actors operate. Other actors in the system that determine the enabling environment of housing finance therefore play vital roles in the value chain of housing finance. Accordingly, institutional factors such as contract enforcement, property right assignment and protection, and corruption impact the housing finance value chain in several ways. Structural variables such as concentration and competition in the financial sector, relative role of state financial institutions compared to that of privately owned ones in the sector, and relative role of the informal financial institutions compared to the formal ones in the sector are important in the value chain of housing finance. Policy and regulatory factors such as monetary policy and choices of instruments, and financial policy are essential enabling environments. Infrastructural factors such as coverage of and access to internet and the degree of digitization of the country play crucial roles both in supply of and demand for housing finance. In the context of Ethiopia, state housing finance largely targets the low- and middle-income households. SACCOS, relatives and private lenders largely cater to the highly informal, low-income, and non-collateralized market segment.

3.2. Actors in The Housing Finance Market in Ethiopia

The following institutions are identified as major actors in the housing finance market having direct and indirect roles.

A. FINANCIAL INSTITUTIONS

The commercial banks, micro finance institutions,Fintechs saving and credit cooperatives (SACCOs) and mortgage banks have been identified as the primary actors in the housing finance market.

B. REGULATORY AUTHORITIES

National Bank of Ethiopia

Under the umbrella of its mandates the bank is dedicated to creating a favorable and healthy financial environment for investments on housing finance, understanding the fact that with the current housing and housing finance demand, provision of housing finance is beyond the capacity of commercial banks and few mortgage banks. Also recognized that housing finance is not for the mere purpose of profit generating rather it is an important element of social development urging a separate treatment.

Capital Market Authority of Ethiopia

Capital Market Authority (CMA) was established in July 2021 mandated with protecting investors, promoting the development of a capital market favorable for long term investment in which securities can be issued and traded in an orderly, fair, efficient and transparent manner and reducing systemic risk by ensuring the integrity of the capital market and transactions. Currently CMA has come up with a range of short and long term policy options for improving the Ethiopian financial market with the development of multiple products and corresponding regulatory framework that encourages long-term financial options and investment, which indirectly coincides with housing finance.

- Development of “real estate investment fund” through issuing long term bonds which targets to boost real estate developers financial capacity and outreach;
- Development of a financial platform in which the private sector, any group or government institution can issue long term bonds and raise funds for housing projects tailored to different income groups.
- Introduction of a ‘mortgage refinance’ in Ethiopia, which is designed to assist lenders to build equity quickly and also shorten loan terms or reduce monthly repayment. According to CMA, this would be traded on capital market in developing a product called ‘Asset-backed Security (ASB)’ for housing purposes, and in this regard, CMA provides advisory support on the prevalence and usage of such product whereas users/borrowers should connect with bank of their interest to use ASB.

- Proposed to launch stock markets in Ethiopia and become one of the vibrant avenues where shares of small and large companies including real estate or other related companies working in the housing sector can be sold and bought in 2023/2024 fiscal year.

In general, in these financial market activities, CMA plays the role of securitizing the loan and providing logistic arrangements for accessing the capital market.

C. MANDATED GOVERNMENT OFFICES

Federal Housing Corporation, Ministry of Urban Development and Infrastructure, Addis Ababa city Administration Housing Agency

Under the 10 years' prospective plan of Ethiopia the government has planned to construct 4.4 million housing units, with an implementation plan that needs the collaborative role of the government, private investors and developers to finance the housing development projects on a 20/80 modality. Out of the 4.4 million housing units the government's share is 20% which amounts to 888,000 housing units. The source of finance for this construction is from government capital through bond requests from the Commercial Bank of Ethiopia. The remaining 80% of the finance is expected to be covered by the private sector though there are no clear modality/alternatives on how it will be financed.

As a means of addressing housing demand for the low and middle - income households the government has identified and started working on housing programs targeting the low income. Five alternatives are proposed other than condominium housing projects;

- Building of rental housing
- Public Private Partnership (PPP)
- Cooperative housing unit's development
- Joint Venture Partnership (JVP)
- Private real estate developers

According to the key informants, from the above programs, high hopes are attached to the rental housing to address the low - income groups housing demand, cooperative housing development program being the second in comparison to others. Also research is being conducted to see how to establish housing finance funds and related financial institutions for efficient provision of housing finance as well as bring change on housing finance policies within the financial sector.

D. DEVELOPMENT PARTNERS

Habitat for Humanity Ethiopia (HFHE)

HFHE is one of the prominent development partners working on housing for the last three decades through low income focused mortgage financing (within a revolving fund scheme), slum upgrading and WASH activities in different parts of the country. From HFHEs experience the key informants argue that addressing the housing finance needs of low income households in major cities like Addis Ababa is more complicated than secondary cities due to the administrative bottlenecks and lack of coordination among stakeholders. But this does not mean it is completely impossible, as they highlighted that by connecting mortgage housing with housing microfinance and improving the administrative efficiency, it would be possible to reach the low income households. The key informants further added that there are other low income focused housing interventions that include slum upgrading, renovation (reconstruction of dilapidated housing units) which can even extend to developing new green community settlements. In line with such initiatives HFHEs has plans to collaborate with government, development partners, financial institutions and the community. Particularly, by acting as a catalyst and sharing project implementation and management experiences with regard to mortgage financing for the low income at grass root level which can be adapted to large scale interventions and thus paves the way towards the establishment of low income focused housing finance systems.

Financial Sector Deepening Ethiopia (FSDE)

According to the key informant, FSDE is new to the Ethiopian financial market but it has a lot of experience in other African countries working on three pillars: financial inclusion, capital market and climate finance. Housing being one component of climate finance FSDE plans to contribute in the areas of introducing and supporting low cost and climate friendly housing innovations. As a market facilitator, FSDE also plans to support the system at micro and macro level mainly through technology and product development which will include financial inclusion and housing finance.

E. REAL ESTATE DEVELOPERS

The key informant indicated that they are aware of the government's proposed plan for the private sector's contribution in the provision of housing in the 10 years' strategic plan and are working in the housing sector mainly based on their own financial sources with a tiny share coming from commercial banks (5%). However, the key informant expresses the fear that this might not work in favour of the low-income group unless there are interventions that can radically change the functioning of the housing market. Because, as a profit maximizing entity, the final price of the real estate apartments/housing unit incorporates all the costs incurred in the process of construction; and from their practical experience the cost of land together with imported inputs and unplanned elongated construction timeline highly affect the final price making it completely unaffordable for the low income households.

F. HOUSEHOLDS AND BROKERS

Equally important to the above actors, households are also found at the centre of the housing finance market driving the demand side. Brokers/ middlemen between buyers and sellers of housing units or land were identified as important actors particularly in setting the final price. According to the majority of the key informants, brokers were found to be distorting the housing finance market as they attach higher artificial housing and land prices making it affordable only for few high income households.

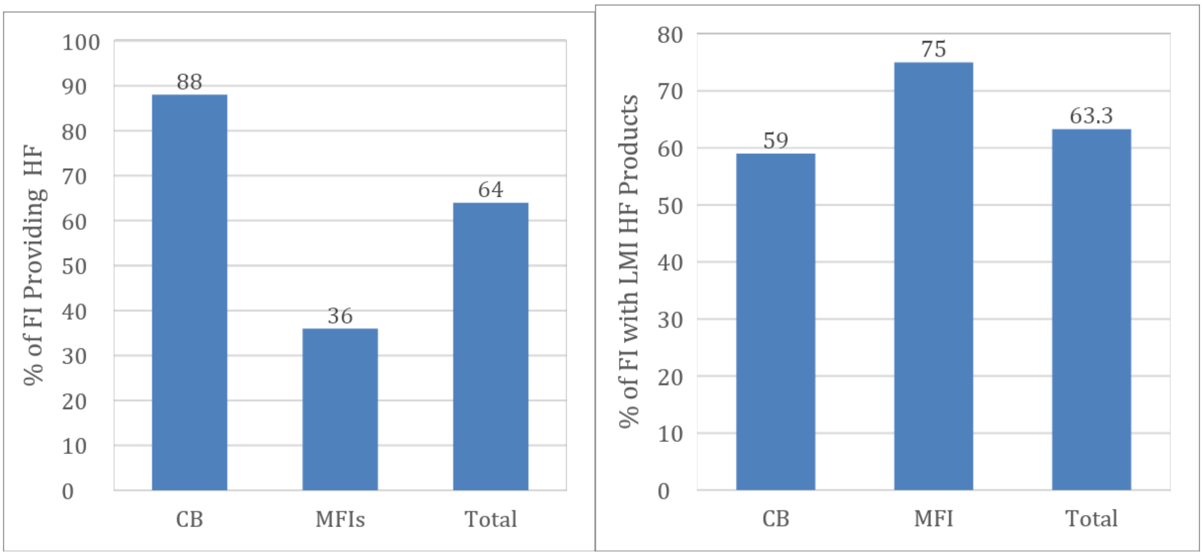
3.3. Housing Finance Products, Purposes and Loan Terms

As indicated in the conceptual framework, the housing supply subsystem is a major element of the housing finance system. Ethiopia has an underdeveloped system of housing finance and markets. An analysis of secondary data shows that the total housing loan supplied by financial institutions in Ethiopia is extremely small. More than half of the housing market is financed informally through relatives, friends, and savings groups, and only 23% is financed through mortgages[10]. The low housing finance uptake is linked to high interest rates, regulatory controls, low incomes, credit risk, inadequate supply of affordable housing, and low financial literacy. Other factors contribute to the weak financial sector, particularly the housing sector. For example, while banks granted loans in the third quarter (Q3) worth Br7.7 billion (US$147.6 million), the proportion of loans allotted to housing is small, partly due to inadequate clarity on ownership rights. The proportion of loans directed to housing and construction of total loans disbursed was 11.1% and 7.1% in the second and third quarters of 2022, respectively. Our key informant interviews with financial service providers' officials showed that the factors that make it difficult for the FSPs to provide more housing finance products are interrelated and comprise a lack of collateral security, difficulty in checking the creditworthiness of potential borrowers, and economic instability. These factors are now discussed below.

[10] World Bank (2019). Unlocking Ethiopia's Urban Land and Housing Markets: Urban Land Supply and Affordable Housing Study. 1 October 2019. https://openknowledge.worldbank.org/handle/10986/32756 (Accessed 02 June 2023) Pg. 46.

Of the total surveyed financial institutions, 64% do provide housing finance products in line with conventional financial products. Disaggregation into commercial banks and MFIs shows that 88% of the commercial banks and 36% of the MFIs provide housing finance products. Based on the additional inquiry into target customers, it is observed that out of the FIs that provide HF, 63% reported that they have uniquely designed HF products for low and middle-income households. Detailed assessment on whether there is a difference among commercial banks and microfinance institutions indicated that 75% of MFIs and 59% of commercial banks have products for low and middle-income households. However, it is more inclined towards the middle-income group.

Figure 3- 2: Financial Institutions with housing finance products



It is observed that HF is a recent phenomenon, as 60% of them commenced the provision of HF products in the 2010s, as shown in the table below.

Table 3- 1: Housing finance service provision start year

Year FI Started HFP	# of FI	%
1945	1	3.3
1990 – 2000	6	20.0
2001 – 2010	5	16.7
2011 – 2022	18	60.0
Total	30	100

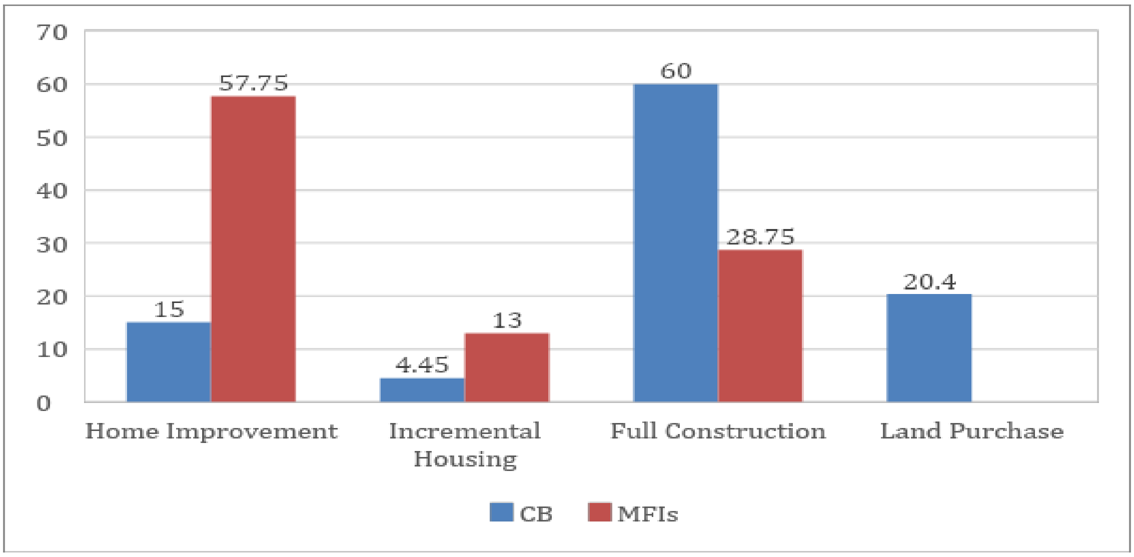
Assessment of the housing finance products indicated that both commercial banks and MFIs have housing finance products identified as mortgages or housing loans. Commercial banks have a number of mortgage loans targeting different customer groups. Financial institutions' own staff, diaspora, government employees, employees of multinational organizations, condominium owners, small and medium scale businesses, real estate developers, investors, and individuals with justified sources of income were reported to be the major customers of housing finance in commercial banks. For MFIs, the target customers were reported to be social groups that are basically excluded from conventional banking, where one key informant identified them as the "missed middle." Specifically, MFIs housing finance customers include small and medium enterprises (SMEs) operating within the wide spectrum of business, civil servants, and poor rural and urban households. Looking at the customer basis of SACCOs, two types are observed;

for government organization-affiliated ones, the clients are members only if they are also employees of the given organization. Similarly, private SACCOs also provide housing loans for their members only. Still, the difference with government-affiliated SACCOs is that anyone interested can be a member, which puts private SACCOs in a better position to mobilize large amounts of loanable capital.

3.4. Common Uses of Housing Finance

In order to assess the common uses of housing finance loans, a question with seven categories was framed as home improvement or repair, WASH improvements, energy efficiency improvements, disaster recovery, incremental housing, house construction, and land purchase. Disaggregated analysis by commercial banks and MFIs is depicted in the figure below, which shows that loans from commercial banks were mainly used for construction or/and purchase of houses and, in some cases, for renovation, finishing, and expansion while the majority of loans from MFIs were spent on home improvement and repair followed by full construction and incremental housing.

Figure 3- 3: Uses of Housing Finance



One possible conclusion from the above figure might be that commercial banks are addressing housing finance needs for the construction or purchase of new houses, which require large amounts of financial capital. In contrast, loans from MFIs are used to finance relatively low-cost housing needs that include renewal, maintenance, incremental housing or finishing costs. This is also indirectly reflected in the big difference between commercial banks' average housing loan amounts and MFIs, as stated in Table 3-2.

There is also a clear difference with regard to loan terms: interest rate, loan duration, and repayment platform. Commercial banks were observed to have longer loan duration periods and lower interest rates, which is a combination of flat and declining rates and monthly repayment schedules. For MFIs, the loan duration falls within the medium term compared to loans from banks, and the interest rate is high with a uniform declining rate and monthly loan repayment schedules.

Data collected from SACCOs indicated that interest rates and loan duration periods from both government-affiliated and private ones fall between the commercial banks and MFIs' similar loan terms, as stated in Table 3-2 below. Loan repayment period for SACCOs is on monthly basis.

Generally, the average interest rate on housing loans (from commercial banks and MFIs) ranges between 3.67 and 28%, which is comparable with rates in other African countries. Particularly, the rate on HF loans from commercial banks (3.67 – 17%) was found to be lower than mortgage interest rates in Ghana (19 – 32%), Malawi (20 – 25%) and Uganda (16 – 26%).

Table 3- 2: Summary of Housing Finance Products, Purposes, and Loan Terms

Description	Commercial Banks	MFIs	SACCOs	
			Government affiliated	**Private**
Products (names)	Mortgage Loan, Diaspora mortgage loan, Staff mortgage loans, Murabha mortgage loans for Staff and Diaspora, Mortgage loans for employees of institutions, Condominium Loans, Mortgage loans for international organizations and NGOs	Mortgage, Gojo, Housing, Social, and Service Finance loans.	No specific loan designated for housing	Housing loan
Purpose	Full House Purchase, Construction, Renovation, Expansion, Finishing	Renewal, improvement, Repair, Finishing, Incremental Housing, Purchase, WASH.	Condominium down payments, home improvements, fencing, land purchase and finishing	Purchase, construction, improvement and/or WASH
Loan Amount (Ave in ETB/USD)	1,090,000,000(20,022,042.6)	202,000,000 (3,710,506.98)		
Loan Duration (Ave. in years)	17	6.4	8	7.3
Interest rate (Ave. in %)	10	23.7	9.74	13.6
Interest rate structure				
Flat	52%		100%	
Declining	48%	100%		
Repayment Schedule				
Weekly	2.70%			
Monthly	91.60%	100%	100%	100%
Seasonal	5.50%			

3.5. Housing Finance Loan Requirements and Reasons for Providing Housing Finance Loans

Collateral security, especially mortgage finance loans, is essential in any housing finance market. Commercial banks in Ethiopia require fixed assets 234% higher than the credit amount as collateral to provide credit, which is much higher than Kenya's 120.8% collateral rate. This means the banking system is highly collateralized. These people can, therefore, only obtain loans by providing another property to be used as collateral. Some of the reasons that banks offered to justify their reluctance to offer housing finance loans were the following:

- The lack of clear land legislation that would allow the property to be used as a guarantee
- The long loan periods the bank needs to wait to regain their portfolio

- The lack of a Government policy on subsidizing housing credit
- Lack of title documents by most clients

Even when people have standard property that can be used for collateral, land registration systems in Ethiopia are so challenging that many people have no documents to prove ownership of their property. Anecdotal evidence in Ethiopia shows that the land tenure system contributes to property ownership crises. The bureaucracy involved in the land administration and registration process is entangled by corruption, fraud, and unnecessary delays. Moreover, it is common to observe cases where the same plot of land is sold to multiple developers. This finding echoes the argument of De Soto (2000), which indicated that the lack of reasonable collateral is a reason for the underdevelopment of the housing finance market in developing countries. Again, the Ethiopian government land lease directive created a vacuum in the legal regulation of citizens' property rights and is found to be very bureaucratic. For this reason, real estate developers are drawn to the lucrative, high-end market. Here, the failure of the government's land title system creates negative feedback that affects the supply of housing finance loans to potential house owners.

All the surveyed financial institutions stated that collateral is required to provide housing loans; one of the common collateral required and accepted is a formal land title (official freehold certificate). Proof of citizenship, credit history, and properties other than land, such as vehicle and project description, were reported to be the commonly requested documents and collateral requirements. The related investigation also indicates that applicants' having a clear means of earning or source of income as being salaried workers, self-employed with regular income, and having minimum savings are important factors in processing loan applications, as depicted in Figure 3-5. This indirectly implies that households without formal and regular income sources are excluded from accessing housing finance.

Figure 3- 4: Commonly Requested Housing Finance Collateral and Guarantees

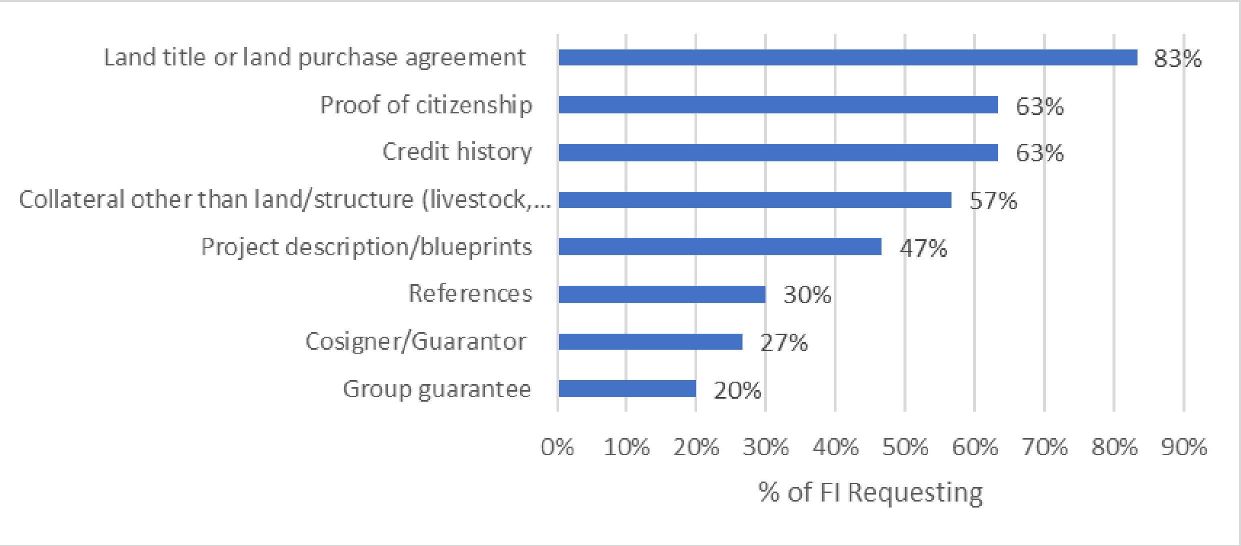
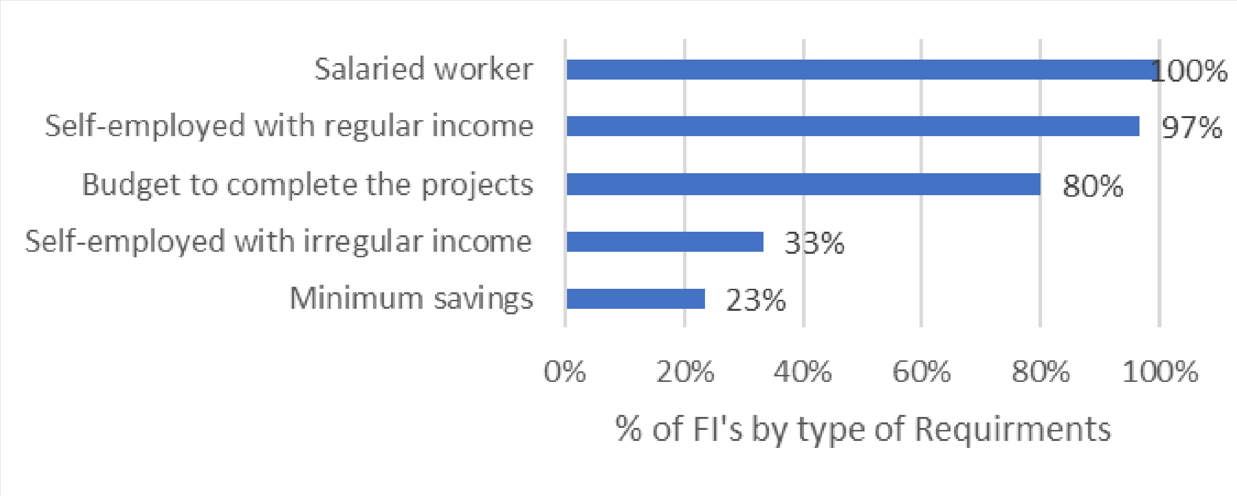


Figure 3- 5: Housing Finance Loan Requirements



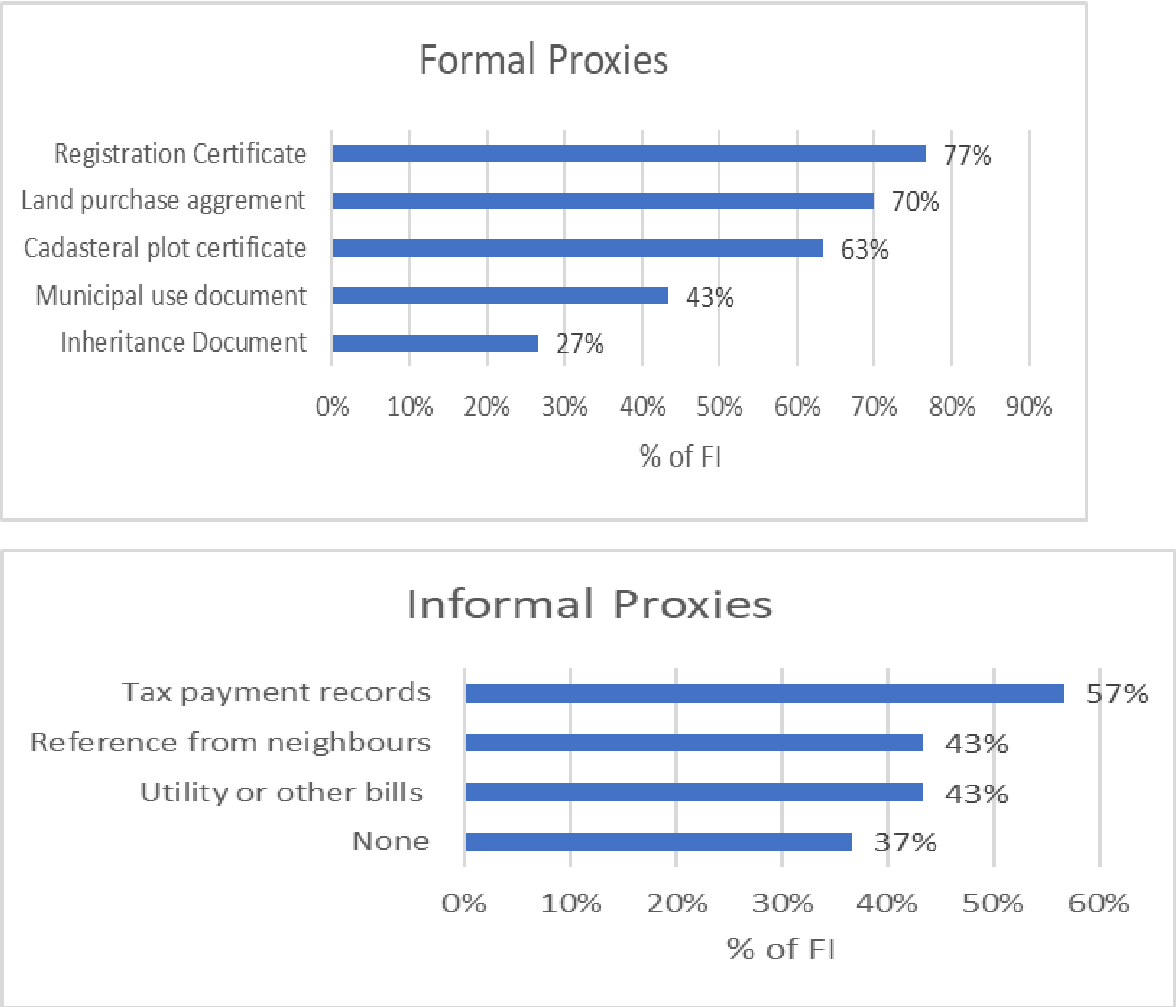
KIIs with SACCOs revealed that the main requirement for loan application is that the applicant should be a member and have a 6-month pre-saving, which amounts to 25-30% of the expected loan to be requested.

Table 3- 3: Summary of HF loan requirements

Commercial Banks	MFIs	SACCOs
• Opening of account in the proposed bank (mandatory for any applicant) • Application letter (for all clients, including all legal documents of proposed houses) • Foreign currency (only for diaspora special housing package) • Marriage certificate (applicable except for companies) • Tax clearance (of both buyer and seller) • Equity contribution (apply for all, but its amount varies across client type) • If the client is an employee, the below particularities should be availed: • Tin number (to detect his/her credit history from the national bank) • Clear date of birth and expected retirement period • Monthly income (only fixed income) • Financial statement (for business owners and real estate developers) • Once the applicant fulfills the above-listed requirements, the next procured will be: • Engineering estimation of the houses (approval of plan for completed houses) • Estimation and bill of quantity (if the loan is intended for expansion, renovation, or construction)	General Requirements • Personal identification cards • Age • Provision of predictable income source, • Clean criminal records • Detailed financial information on saving habits and prospects, repayment capacity, loan management profiles, • Legible Collateral • References • Pre-saving of 10 - 40% of the requested loan amount for a maximum of 6 months, depending on the housing product. • Compulsory saving is not always the case for all housing products and across MFIs. Some require voluntary savings for WASH services.	Government affiliated SACCOs • The applicant should be an employee of the respective organization and then a member of the SACCO. • Six months pre-saving, which amounts to 25-30% of the expected loan to be requested. • Guarantor who is an employee of the same organization and member of the SACCO. For private SAACO • The applicant should be a member of the SACCO. • Regular pre-saving for six months to one year amounting to 25% of the proposed credit • Collateral which can be house, vehicle, borrower's savings and/or share at the SACCO, Bank or Insurance company share, Salary, Guarantors who can pledge their assets, • one member from the cooperative as a guarantee.

To further understand how collateral and other requirements hinder access to housing finance, the surveyed financial institutions have been asked if they can accept other proxy documents (as collateral) that indicate land entitlement if the clients are unable to provide formal land ownership certificates. As depicted in the two figures below, formal non-title tenure and informal documents can be provided to access housing finance loans. This can be considered a good practice in easing the collateral requirements and increasing access to housing finance for those households that do not have formal land-holding certificates. In contrast, many respondents also reported not accepting informal proxies.

Figure 3- 6: Formal Proxy Tenure Security Documents

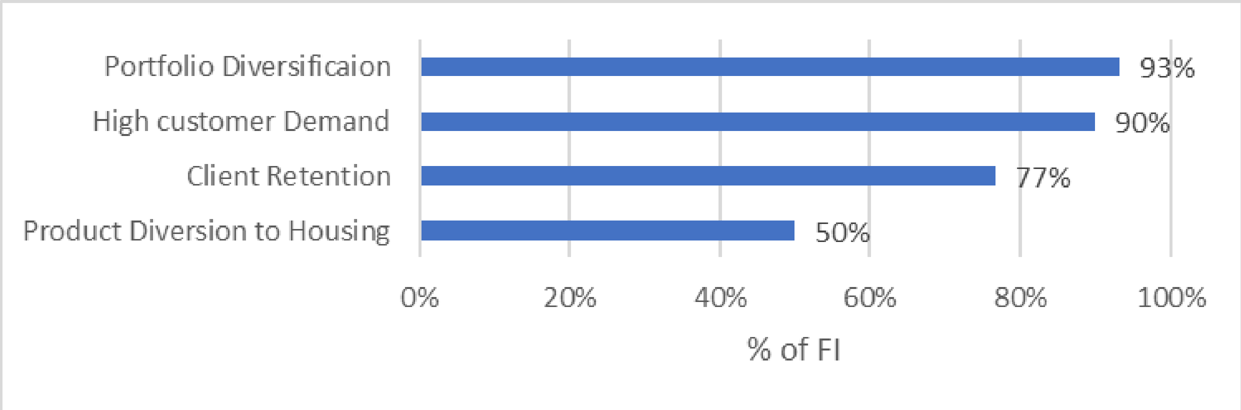


As a way of examining the likelihood that a potential borrower will pay the loan, credit checks are essential in any housing finance market. Developing countries lack reliable information about a potential borrower's annual income and credit history due to the large informal sector and the lack of credit-checking agencies. In this case, the lack of credit-checking agencies negatively affects the supply of housing finance. Apart from the non-existence of credit-checking agencies in Ethiopia, there is no reliable, centralized, and accessible record of vital personal information such as date of birth and residential address. Further, there is no proper address system, which makes it difficult to establish the creditworthiness of potential borrowers. Consequently, the lack of reliable information on potential borrowers results in the application of very strict procedures by financial institutions, which, most of the time, rules out many applicants.

This case validates how the malfunctioning of one housing market component disturbs the system's overall performance.

Financial institutions were also asked why they have added housing finance to their loan portfolio. Among the alternatives stated, portfolio diversification and high customer demand were found to be the most common reasons picked by the majority of the respondents. Client retention and product diversion towards housing finance were also found to be the prominent reasons, implying that the financial institutions are alert and responsive to the market.

Figure 3- 7: Reasons for providing Housing Finance



3.6. Operation, Performance, and Future Prospect of Housing Finance

Housing finance is considered a long-term loan, and the financial institutions in Ethiopia are highly constrained by limited capital for housing loan products. This is frequently echoed by the banking officials during the key informant interviews, mentioning capital adequacy as a constraint to the supply of housing finance loans. Similarly, significant portions of loans disbursed by banks are short-term, and their share of long-term loans remains small. During 2021/22, banks disbursed ETB 427.9 billion in fresh loans, with (56.6%) provided by the 16 private banks and the remainder by the two state-owned banks. Out of the total fresh loans disbursed last year, only ETB 4.7 billion—10.7% of the total—was disbursed to the housing and construction sub-sector. Moreover, the large portion of financial resources mobilized by banks is not suited for long-term lending. More than 90% of deposits are in accounts that allow withdrawals at any time. In Ethiopia, out of the total deposits mobilized by banks, 56.6% and 34.2% were in saving and demand deposit accounts, respectively, while time deposits constituted only 9.2%. The prevailing huge unmet demand for housing cannot be addressed by only focusing on mortgage banking. Experts argue that attracting as many depositors as possible is a prime requirement to mobilize sufficient amounts of funds for the housing finance sector; housing finance tends to be long-term lending, so it is required to secure adequate long-term resources. As can be easily understood from the performance of Ethiopian commercial banks, mobilizing funds is a difficult task that takes time and requires abundant resources. For instance, the specialized housing finance bank in Ethiopia, Goh Bank, requests an initial deposit of 15 to 20% of the house price by the buyer of the house as down payments, and the bank provides the remaining amount at lower lending interest rates and payback periods extending up to 30 years.

Financial institutions other than commercial banks play an insignificant role in Ethiopia, and where there is a microfinance sector, the accessibility of housing microfinance products is inadequate. Although savings and credit cooperatives (SACCOs) and rotating savings and cooperative associations (ROSCAs) are acknowledged as important players in the housing sector, the actual ability of these institutions to support low-income households realize their housing needs is limited, both in terms of the capital they employ and their capacity to leverage more.

Moreover, no official data indicates the amount of housing finance loans from microfinance; during 2021/22, the number of microfinance institutions (MFIs)[11] reached 43. Their total capital and total assets reached Birr 15.5 billion and Birr 58.9 billion, respectively. At the same time, their deposit mobilization and credit facility also expanded remarkably (NBE 2022). Here, it can be stated that the weak financial position of many Ethiopian financial service providers is also a constraint to the supply of housing finance products.

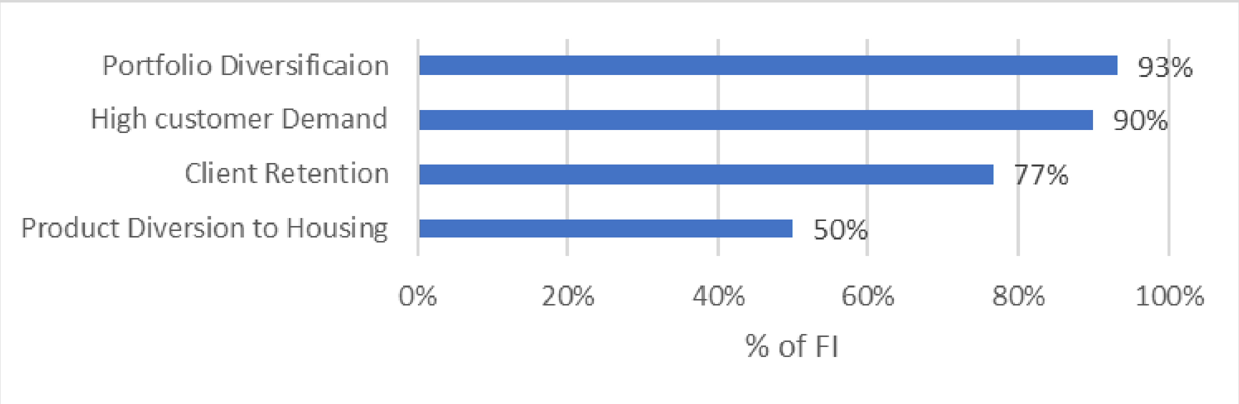
A. SHARE OF HOUSING FINANCE AND TOTAL LOAN PORTFOLIO

Out of the financial institutions' total loanable capital, housing finance loans account for 7.71% on average, with a maximum of 43% (for only one CB – Goh Housing Bank) and a minimum of 0.3%. Further disaggregation by financial institutions indicates that HF loans constitute 9% of commercial banks and 4% of MFIs. Although this figure seems small, all the interviewed financial institutions indicated they planned to expand their housing finance portfolio to 14% on average. This implies positive expectations from the supply side regarding the housing finance market, which in turn indicates good investment prospects. Regarding loan volume, HF represents an average of 3.9 billion birr from the total loan portfolio, which is reported to be 5.27 billion for commercial banks and 142 million for MFIs.

B. SOURCES OF HOUSING FINANCE LOAN

In response to the source of HF loans, the interviewed financial institutions reported that mainly it comes from savings dedicated for housing purposes (this includes blocked savings only for housing and the pre-savings for the requested housing loans). Deposits (demand deposits or time) and equity are also reported to be the usual sources of HF loans, while few also use government debt. This indicates that the supply of HF loans is highly dependent on the level of savings for the same purpose, which challenges the sustainability of HF loan provision on top of the huge gap between demand for and supply of HF unless additional sources are identified and developed.

Figure 3- 8: Sources of Housing Finance Loans

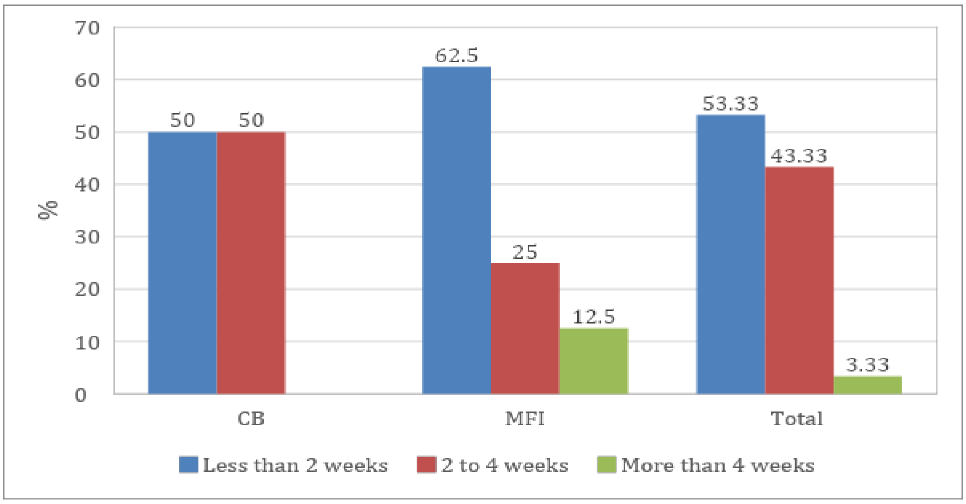


C. LOAN PROCESSING TIME

One of the factors that might discourage housing loan applicants is loan processing time. In line with that, nearly all of the surveyed financial institutions reported that it takes a maximum of 4 weeks to decide on HF loan applications.

[11] The Microfinance Institutions sector does not have statistical data on lending per sector therefore making it difficult to gauge the size of lending towards the housing sector

Figure 3- 9: Housing Loan Processing Time Across FI



D. HF LOAN DISBURSEMENT AND COLLECTION CHANNELS

All interviewed financial institutions stated that they use their branches to disburse loans as well as for collection. Digital payments were observed to be another important channel for loan repayment.

Assessments were also made on the mechanisms used by financial institutions in disbursing loans among full amount cash transfer, cash transfer in tranches/line of credit, and payment to material suppliers. Of the 30 financial institutions that provide HF, 24 replied that they provide the full amount in cash, while 14 also stated they provide in tranches.

E. HF LOAN OFFICER

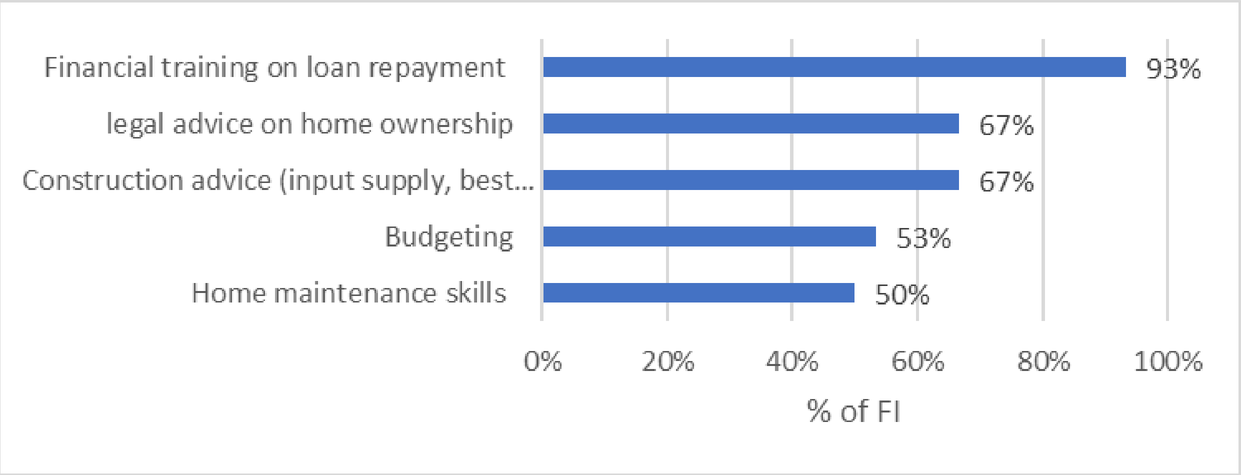
83.33% of surveyed financial institutions replied that they don't have a loan officer assigned solely for processing housing finance products, mainly since the share of housing finance is low and can be covered by other staff without additional assignment of experts and incurring costs.

F. PROVISION OF TECHNICAL ASSISTANCE

All of the sampled financial institutions replied that they provide technical assistance for their clients on top of the loan itself. From the list of technical assistance, the majority of them indicated that they provide financial training on loan repayment, followed by legal advice on home ownership and related titles, construction advice, budgeting, and home maintenance techniques. Additional inquiry also revealed that for 50% of the financial institutions, the provision of technical assistance is mandatory.

Furthermore, it is observed that financial institutions subsidize the cost of technical assistance rather than being covered by the clients. This is an encouraging result as the literature attaches the provision of technical assistance with effective loan management and utilization as well as timely repayment practice, which indirectly builds the confidence of the financial institutes to expand housing finance loan provision. This is supported by the response from the financial institutes regarding the benefits of technical assistance, which, according to them, is mutual for both the clients and the financial institutions. Customer attraction, good relationships with clients, effective loan management and utilization, goodwill, strong loan repayment performance, and customer satisfaction were found to be the positive outcomes of technical assistance. Despite this, they encounter challenges mainly related to low awareness and acceptance from customers to acknowledge and implement the technical support and advice, which can be one reflection of the overall low financial literacy rate.

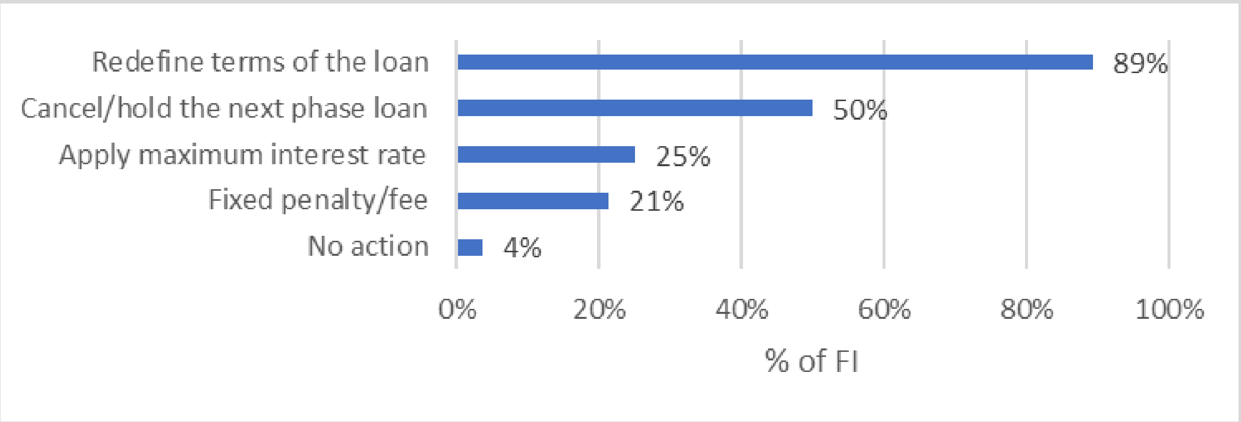
Figure 3- 10: Types of Technical Assistance



G. HOUSING LOAN UTILISATION FOLLOW-UP AND ACTIONS AGAINST MISUSE

93% of the respondents replied that they do follow-ups on whether the disbursed loan is being utilized for the intended purpose or not. Field visits, document review, follow-up, and process evaluation by engineers and loan officers based on the bill of quantity and the loan agreement, and periodic assessment before releasing the next tranches are the common follow-up approaches reported in the survey. In case of misuse, there are actions undertaken by the financial institutes where redefining the loan terms is the common practice, followed by canceling the loan totally or holding the next installments and applying maximum interest rates.

Figure 3- 11: Measures against Housing Loan Misuse



H. PERFORMANCE OF HOUSING LOANS

Three measures were used to assess the performance of financial institutions with regard to their HF loans: growth in number of active loans, value of active loans, and portfolio at risk (PAR). The results reported in the table below indicate that HF loans are growing. 90% of the interviewed financial institutions also responded that their HF loan portfolio is growing steadily. However, the other performance indicator, PAR, has increased by 21.6% from the previous period, which contradicts the expansion and practice of a healthy and sustainable financial market. In line with this, the surveyed financial institutions replied that the profitability of HF loans is questionable, as only 20% stated that it is more profitable, while 67% said it is less profitable when compared with other types of loans. Macroeconomic instability, mainly the growing inflation, could be the main reason for such incidences.

Table 3- 4: Housing Loans Performance Indicators

Indicators	Growth Rate
Increase in Active Loans (2022-2023)	12 %
Increase in Value of Loans (2022-2023)	19 %
PAR (2022 -2023)	21.6 %

I. HOUSING FINANCE LOAN APPLICATION REJECTION AND REJECTION REASONS

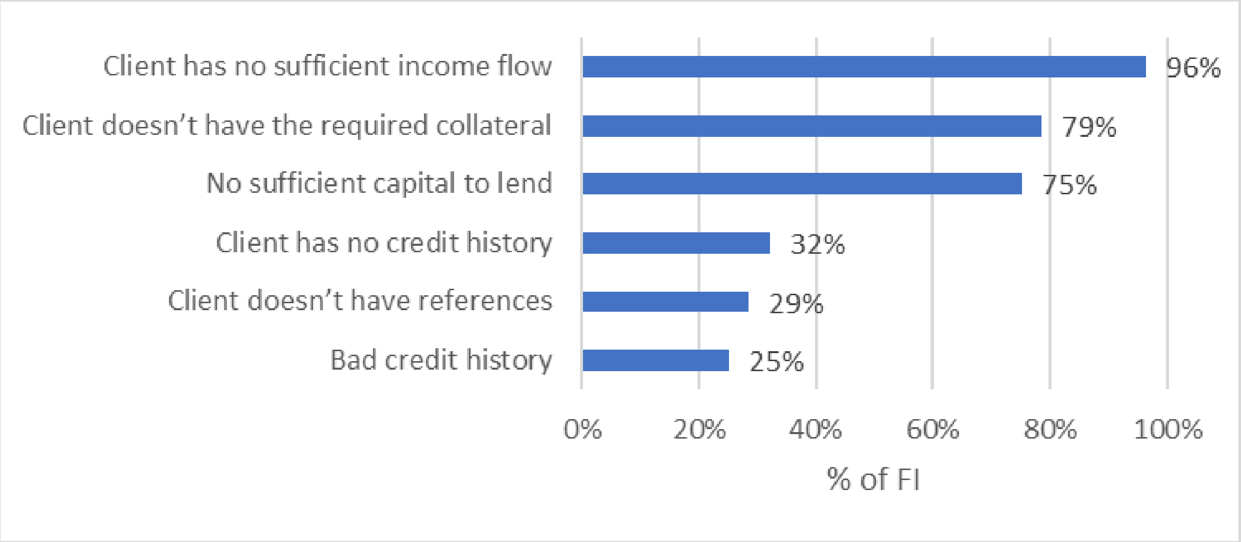
93.3% of the financial institutions interviewed replied that they have experienced rejecting HF loan applications, with a slight difference between rejection rates by commercial banks and MFIs, as indicated in the table below.

Table 3- 5: Housing Finance Loan Application Rejection Rate

Financial institutions	Percentage of Rejected Applications
CB	95.45
MFI	87.50
All	93.33

Assessment of why HF loan applications get rejected revealed a number of factors. The most common reason identified is due to the applicant's lack of sufficient income flow. Lack of collateral, shortage of loanable capital at the financial institutions, absence of credit history, lack of reference, and bad credit history are observed to be significant factors contributing to HF loan application rejection.

Figure 3- 12: Housing Finance Loan Application Rejection Reasons



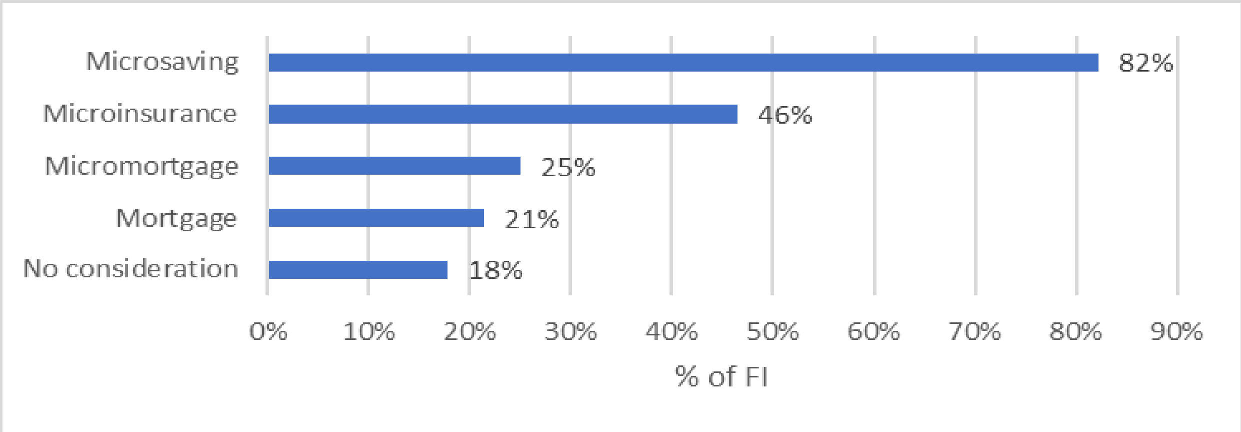
J. EXPANSION AND SCALING UP

93% of the interviewed financial institutions replied that they have plans to expand their housing finance portfolio, where HF can constitute 14% of the total loan portfolio on average, ranging from 1% up to 70%. This can be reaffirmed by the fact that HF is included in the business development strategy of all interviewed financial institutes. Inquiry on the reasons for scaling up indicated that client retention is the common reason (63.3%), followed by portfolio diversification (23.3%) and increased market share (13.3 %). Further inquiry on expansion plans to new demographics and geographies revealed that most of them have planned to address housing demand in regions mainly through their branches.

K. PLANNED HOUSING FINANCE COMPLEMENTARY PRODUCTS

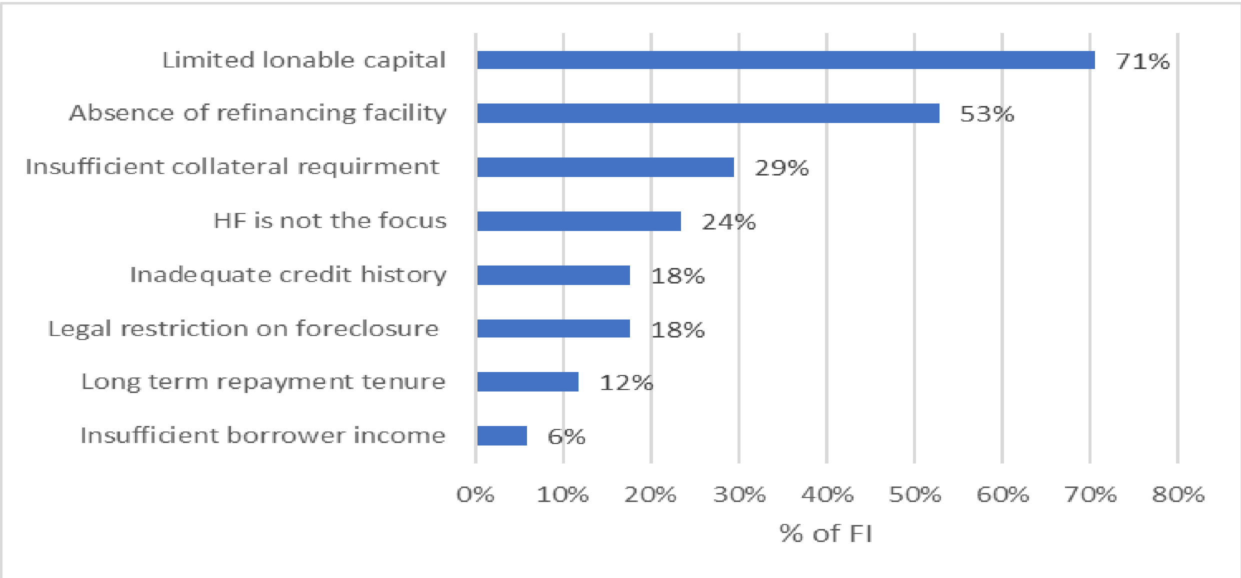
Assessment made on financial institutions showed plans of introducing related housing finance products partly targeted towards addressing the housing finance needs of low-income households and reducing the stretch on loanable capital. Out of the total financial institutions currently providing HF, 77% replied that they have plans to add micro saving, 43% to add micro-insurance, 23% to add micro mortgage, and 13% have no plan to add complementary housing finance products. This is encouraging as such products are pro-poor and found to be effective in addressing the housing finance needs of low-income households in developing countries.

Figure 3- 13: Planned Housing Finance Products



The assessment was also made on financial institutions that do not provide housing loans, particularly the MFIs, as 64% of them reported that they do not have housing finance products. As depicted in the figure below, the prominent factor was similar to the challenge faced by the financial institutions currently providing housing finance, which is limited loanable capital. The absence of a refinancing policy was the most significant among other factors.

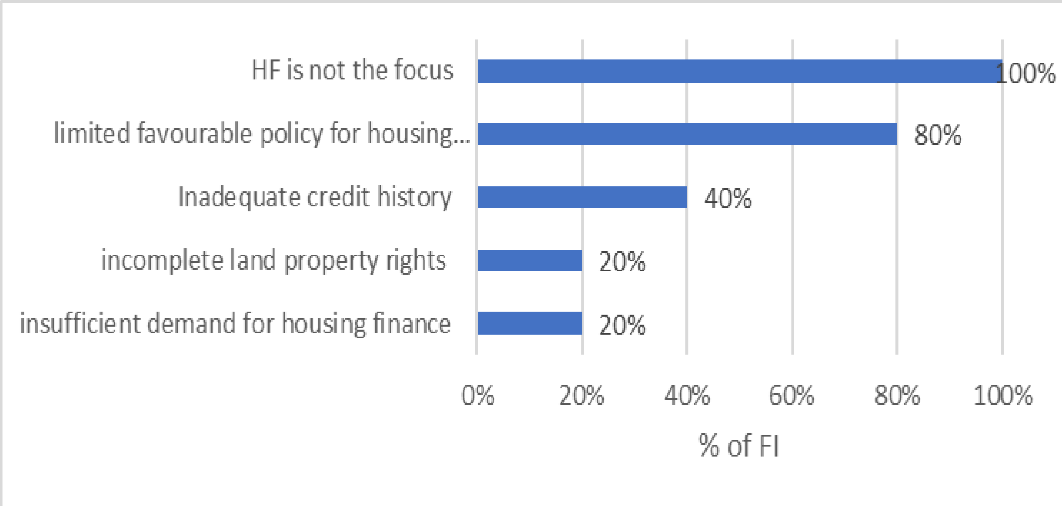
Figure 3- 14: Reasons for not Providing HF Loans



We have also tried to assess the future plans of MFIs that do not provide housing finance loans currently and found out that 65% of them have plans to add housing finance in their loan portfolios within a year (44%) responded within a year while the remaining seem to wait longer years (up to five years or more).

The surveyed financial institutions that do not currently provide housing loans and have no plans to add housing finance to their products list reported slightly different reasons for lacking interest in the sector, as depicted in Figure 3-15 below.

Figure 3- 15: Reasons for not Providing HF Loans in the Future



L. PERCEIVED IMPACT OF HF LOANS ON BORROWERS

In order to understand the role of housing finance on borrowers beyond the direct acquisition of houses or improvement, the financial institutions were asked about the perceived impact of housing finance. Accordingly, improved economic opportunities, improved health/sanitation, improved security of tenure, improved quality of life/happiness, and safety from hazards ranked as the major indirect impacts observed on borrowers, implying home ownership brings multidimensional improvement in one's living conditions.

3.7. Future Provision of Housing Finance Products: Scaling Up Challenges

Macroeconomic Environment and Instability: Undoubtedly, the macroeconomic environment significantly influences the working of the housing finance market. According to the officials from the financial service providers interviewed in this study, a high level of inflation and a high level of devaluation of the birr make long-term loans unprofitable as the value of the amount declines rapidly. The growth of the inflation rates in Ethiopia is high. For instance, inflation rose from about 12.6 in 2019 to 20.2% in 2021. Table 3-6 shows the inflation trend within the last 8 years. As shown in the table, the annual average and year-on-year inflation have fluctuated over the years. The domestic currency is also unstable, often depreciating rapidly against the major foreign currencies (especially the US dollar). Between 2014 and 2021, the Ethiopian Birr depreciated by about 105% against the US dollar. The depreciation of the birr in recent years is also quite significant (Table 3-7). In fact, the birr depreciated by about 39.1 against the dollar in the year 2021 alone.

Similarly, the top banking officials also explained that it is because the high level of inflation and depreciation of the local currency are major bottlenecks for the financial service providers to offer long-term loans. The observation here shows the importance of a system's environment to its overall performance. The environment of a system is a higher-order system of which the system being examined is a part and changes in whose elements will bring about direct changes in the values of the elements contained in the system under examination (Harvey 1969; Ackoff 1981). In this context, the behavior of the financial institutions (especially their unwillingness to grant long-term loans) can be explained as negative feedback to the unstable economic indicators.

Table 3- 6: Trends of inflation in Ethiopia

Year	Annual average inflation	Year-on-year inflation
2014	8.1	8.1
2015	7.7	12.8
2016	9.7	18.1
2017	7.4	16.0
2018	14.6	8.6
2019	12.6	-15.8
2020	19.9	36.6
2021	20.2	1.4

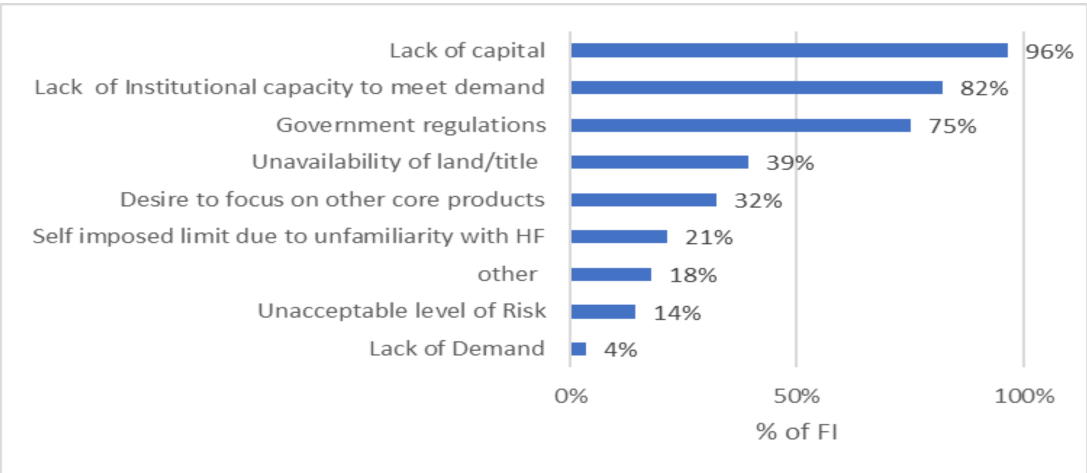
Table 3- 7: Exchange rates in Ethiopia

Year	Amount of Birr required for 1 US dollar (Official exchange rate)	Amount of Birr required for 1 USD dollar (Parallel exchange rate)
2014	19.0748	19.8666
2015	20.0956	22.2932
2016	21.1059	23.6035
2017	22.4137	26.1872
2018	26.1082	31.8146
2019	28.0543	35.8003
2020	31.3427	40.939
2021	39.0163	49.7674

Source: NBE Annual Report (2022)

Although there is a strong observed interest to expand and scale up among the financial institutions currently providing housing finance products, factors hinder scaling up. Among the list of barriers, the prominent factors were a lack of loanable capital and limited institutional capacity to meet the huge housing finance demand. Government regulations and the unavailability of land titles are also factors raised by many respondents.

Figure 3- 16: Barriers to Scaling up of HF



Discussion with key informants indicated that the limitedness of loanable capital relates to the following:

Absence of policy framework on long-term loan/Housing fund: there is no policy direction or regulatory framework on housing funds or long-term loans addressing housing products. The lack of such policy direction, which incentivizes or encourages financial institutions, for instance, to provide alternative sources of long-term funds such as housing funds, has constrained the capacity to provide housing finance.

Absence of mortgage laws: to date, the country has no mortgage law and associated policy frameworks guiding how mortgage banks should operate, including how to address LMI communities. More importantly, such a policy gap is pronounced to be more challenging for the newly established mortgage bank (in the country) that solely intended to work on housing products. According to the interview, this open vacuum on legal and procedural requirements and associated uniformity issues for existing commercial banks, coupled with falling short in incentivizing (i.e., through subsidy/tax exemption) and attracting new mortgage banks to the housing sector, pose additional challenges related to housing finance.

Loan Portfolio Composition: Regarding loan portfolio composition, the surveyed commercial banks pointed out that the directive set by the National Bank of Ethiopia (NBE) restricted loan size to 40:40:20 for short, medium, and long-term loans, respectively. Short-term loans last up to three years, medium-term loans are four to ten years, and long-term loans are for more than ten years. This implies that commercial banks are strictly regulated not to borrow more than 20% of their outstanding balance for long-term investments, which is directly associated with housing finance. Similarly, for MFIs, regulations set by NBE limit total MFIs portfolio and share of loans to be allocated for long-term loans, limiting their loanable capital. Since most microfinance operates within a maximum of 300 hundred-million-birr loan portfolio and 1% of this should be issued per individual in the form of housing loans, such an amount has nothing to do with housing-related issues. That means smaller loans couldn't keep up with inflation on construction materials and, let alone for newcomers, even former borrowers have faced liquidity problems to repay the loan arising from unexpected cost pushes in other dimensions of life. The issue put the worst challenge on LMI groups, especially those with fixed incomes.

Obligatory rules to purchase bonds: Again, the requirement set by NBE on all commercial banks to purchase bonds amounted to 20% of their monthly loan disbursements, whatever the purpose of the loan is reported to be discouraging, especially to provide loans that require higher finance and have longer repayment periods. Besides, this same requirement is affecting their liquidity and loan disbursement capacity.

The other major constraint observed is the land and property registry (inadequate clarity on ownership rights). According to the key informants, only land transferred under the lease, houses with good standard and viable location alongside property right ownership certificate, is accepted for mortgage financing. Regarding this, the sluggish ownership transfer process (from seller to buyer) from the municipality side has been aroused as a challenge in recent years to deliver housing products efficiently. For MFIs, it is reported that clients without a proper legal document of house ownership (i.e., without site plan or legal ownership authentication from respective municipality) apply for housing finance loans, but this falls short of MFIs requirement to be considered as guarantee/collateral. This hindered MFI's marketing, mostly in cities and towns outside Addis Ababa.

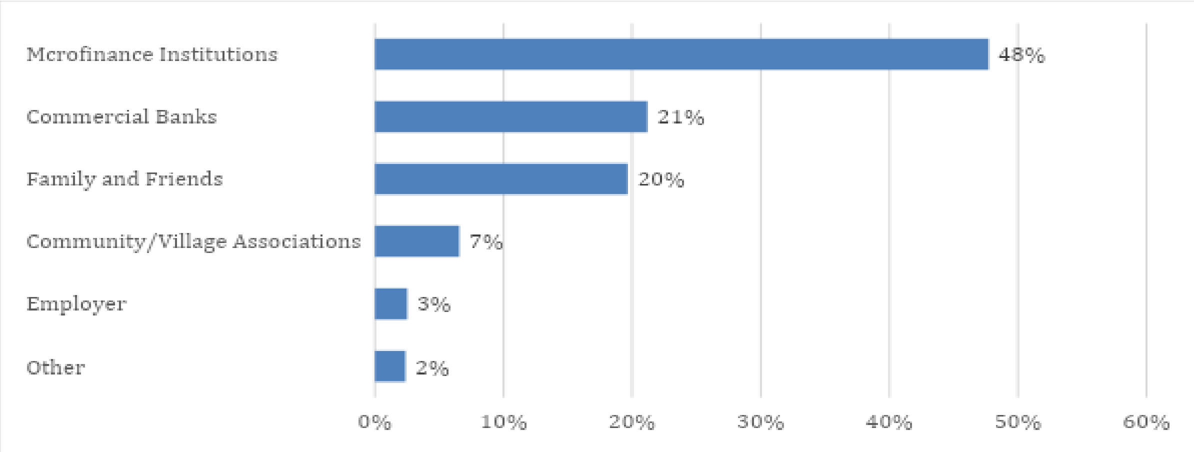
3.8. The Housing Finance Demand Subsystem

I. HOUSEHOLDS SOURCES OF HOUSING FINANCE

As indicated in our conceptual framework, the housing finance demand subsystem is very important for the development and uptake of a sustainable housing finance system. In the absence of reliable data on borrowers, information on housing finance demand was largely obtained from the respondents through household surveys.

Households were asked about the sources of finance they feel eligible to and microfinance institutions are the most mentioned (See Figure 3-17 below). 40.1% of households in the sampled survey believe that they are eligible to get a loan for housing finance from microfinance institutions while 32.1% of the households believe they can qualify for housing finance loans from commercial banks. In other words, Microfinance institutions are the most that households feel could serve their housing loan demand, distantly followed by commercial banks. This is a bit surprising given that the majority of households save in informal financial institutions.

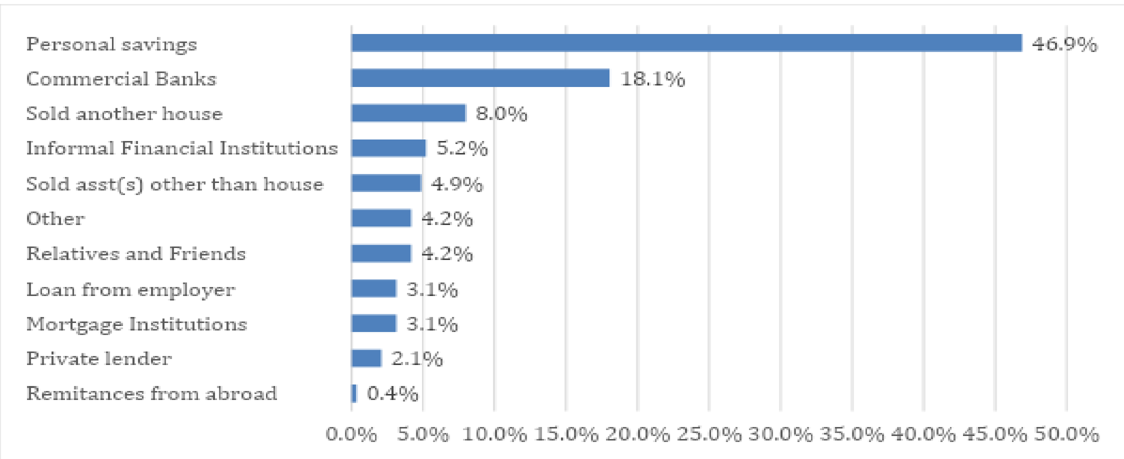
Figure 3- 17: Households Eligible Sources of Finance



Source: Household Survey, 2023

Contrary to what the households feel, personal saving is their most important source of housing finance (see figure 3-18 below). As shown in Figure 4.26 below, households rely significantly on their own personal savings to finance house purchase or construction. Majority (46.9%) of households finance their housing from personal savings followed by commercial banks (18.1%). Few households (collectively 35%) use the other sources to finance the acquisition of their houses. Thus, many households finance their houses through personal savings, sale of property, family money, and borrowing from informal financial institutions. And only 3.1% of homeowners reported that they had ever used a mortgage facility to finance their house. However, the results obtained from the key informant interviews suggest that people in the financial sector are more likely to use the mortgage facility because they are often given lower interest rates on the mortgage. At the time of this survey, for instance, a key informant from the banking sector explained that they were paying as low as 7% interest rate, while other borrowers have to pay as high as 22% per annum.

Figure 3- 18: Households Source of Housing Finance



Source: Household Survey, 2023

II. HOUSEHOLDS PERCEPTION ABOUT HOUSING FINANCE

The results indicate that a significant number (81.45%) of households are aware of the existence of housing or mortgage finance while 18.55% of households have never heard of housing/mortgage finance (See Table 3-8 and Figure 4-10 below). Some of the households that can be identified as aware did not, however, apply for such loan over the past five years. Out of the 584 (81.45%) households who have information about the existence of housing loans/mortgage, 225 (38.5%) didn't file applications to such loans in the last five years.

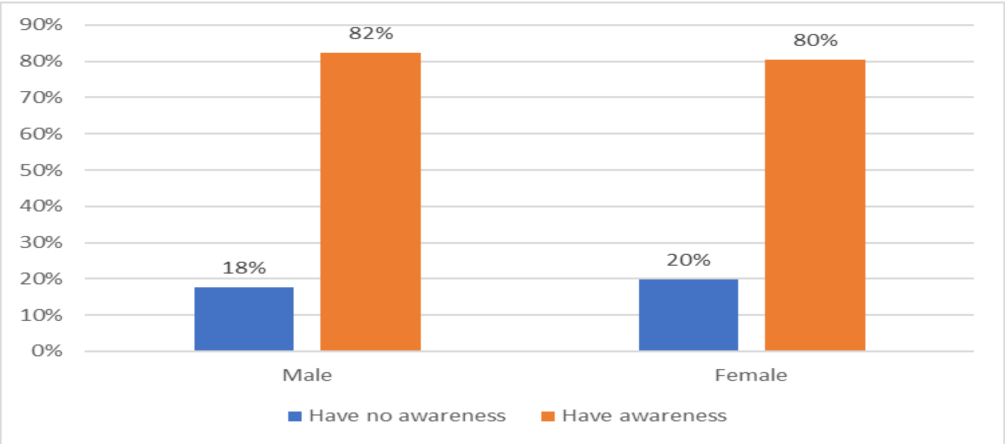
Table 3- 8: Households Housing Loan Application Rate

Have you ever heard the term housing/mortgage finance, housing microfinance	Over the last five years, have you applied for a housing loan?		
	No	Yes	Total
No	79 (59.4%)	54 (40.6%)	133(100%)
Yes	225 (38.53%)	359 (61.47%)	584(100%)
Total	**304 (42.4%)**	**413 (57.6%)**	**717(100%)**

Source: Household Survey, 2023

Households' level of awareness about housing finance are found to be a little different between genders. 82% of the male respondents have an awareness about housing finance while the figure is 80% for the female respondents (See Figure 3-19 below).

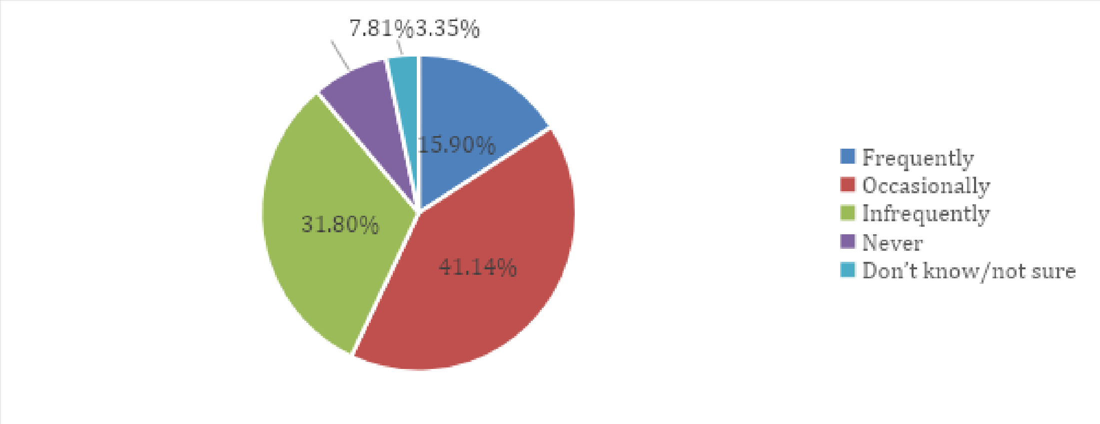
Figure 3- 19: Households Awareness of Housing finance



Source: Household Survey, 2023

Households were also asked about how attentively they follow housing finance/loan news and almost 89% of them read, listen or watch housing finance related news and or stories at least infrequently.

Figure 3- 20: Experience of Following Housing Finance News



Source: Household survey, 2023

Households get information about housing finance/loan from multiple sources. Friends and families (27.2%), Facebook (17.57%), and internet/ websites (7.25%) are the top three sources of information for households. More than 20% of households get information about housing finance/housing loan from social media: Facebook, Instagram, and twitter.

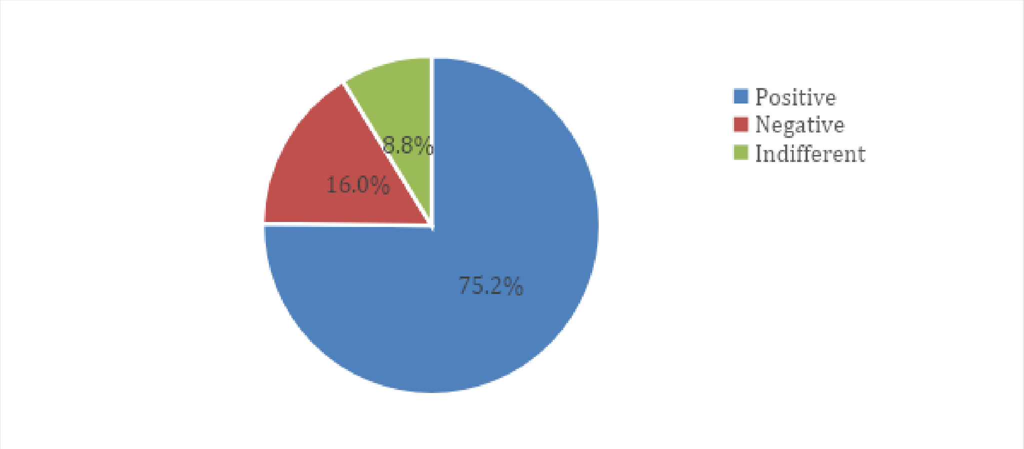
Table 3- 9: Household's Sources of Information about Housing Finance

News Source	Freq.	%
Television	36	5.02
Radio	43	6.00
Newspapers	14	1.95
Friend/Family	195	27.20
Faith-based organizations	1	0.14
Government	36	5.02
Mailings	2	0.28
cell phones	18	2.51
Internet/Websites	52	7.25
Twitter	7	0.98
Facebook	126	17.57
Instagram	13	1.81
community groups	44	6.14
Lectures/Workshops	23	3.21
Pamphlets/brochures	50	6.97
No information	57	7.95
Total	**717**	**100.00**

Source: Household Survey, 2023

As shown in Figure 3-21 below, households' attitude towards housing finance is positive. And most household heads' choice of housing finance products and amounts of housing loans are not affected by families, friends, and others.

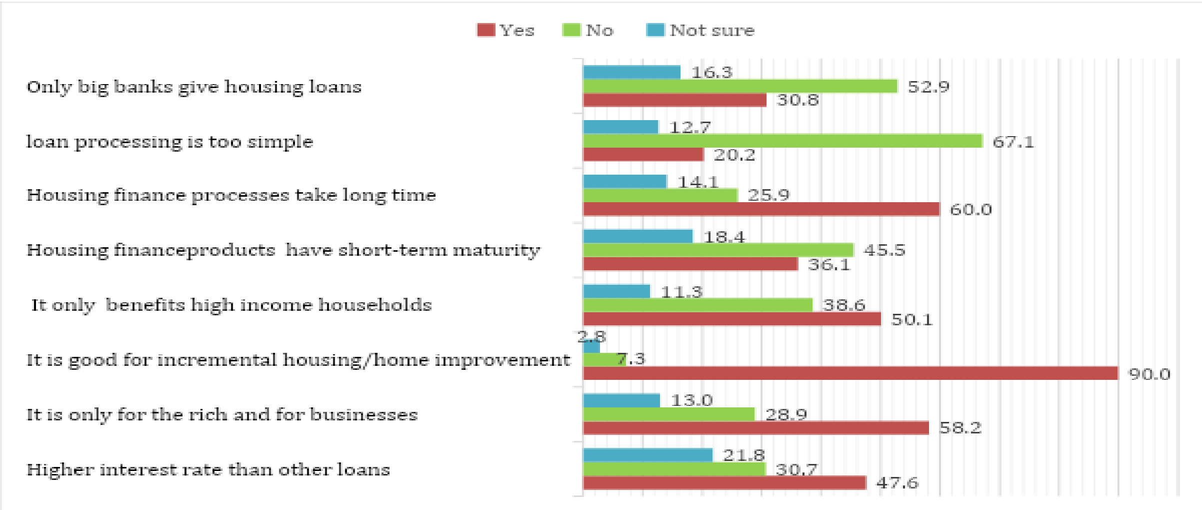
Figure 3- 21: Households Perception towards Housing Finance



Source: Household survey, 2023

The Survey tried to elicit what households perceive about housing loans and the result is presented in Figure 3-22 below. Interestingly, there is almost a consensus among households that housing loans are good for incremental housing or home improvement. Households also perceived that housing loan processing is complex (67.1%) and takes longer time (60%) than other bank loans. There is also a feeling that housing loans have higher interest rates (47.6%) and are affordable only for high income households (50.1%). Only rich people and businesses (58.2%) are perceived to be able to afford such loans. Majority of households, however, do not believe that such loans are provided only by big banks and for short-term maturities.

Figure 3- 22: Households Perception about Housing Finance

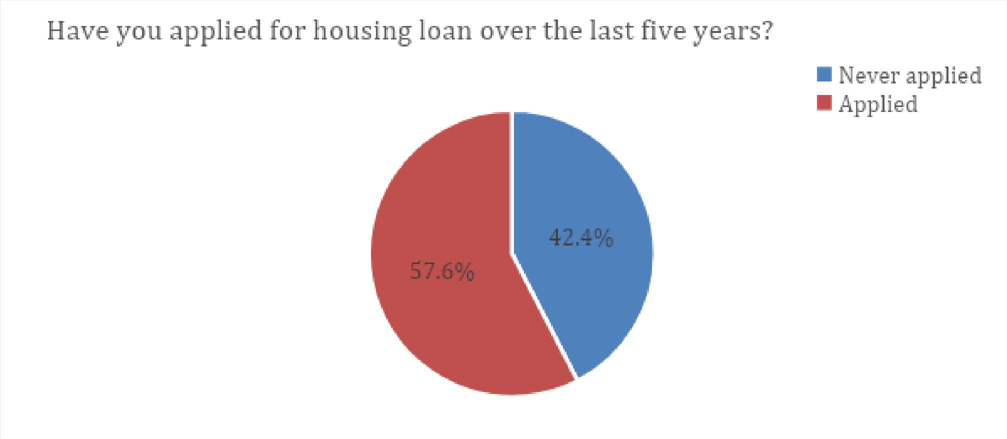


Source: Household Survey, 2023

III. HOUSING LOAN APPLICATION EXPERIENCE

Figure 3-23 below shows the proportion of households that apply for housing loans over the last five years. Majority of households (57.6%) applied for a loan in the stated period while 42% of the households did not. From those who applied, 57% made a single application while 43% applied more than 2 times in that five years' time.

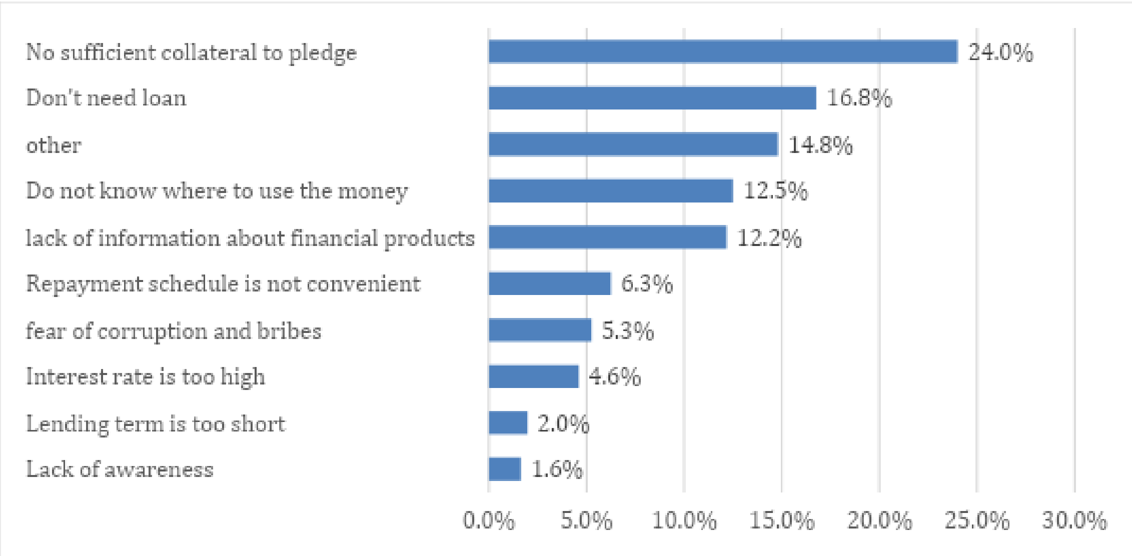
Figure 3- 23: Housing Loan Application Experience of Households



Source: Household Survey, 2023

Those who do not apply for a loan were asked for their reason and their response is depicted in Figure 3-24 below. Lack of sufficient collateral remains to be the major factor hindering households from applying for loan followed by lack of information about the loan products and investment alternatives. Development of innovative financial products that do not require fixed property as collateral may increase households' chance of applying and obtaining loans. In addition, establishment of credit bureaus and asset registry could improve households' chances of accessing loans.

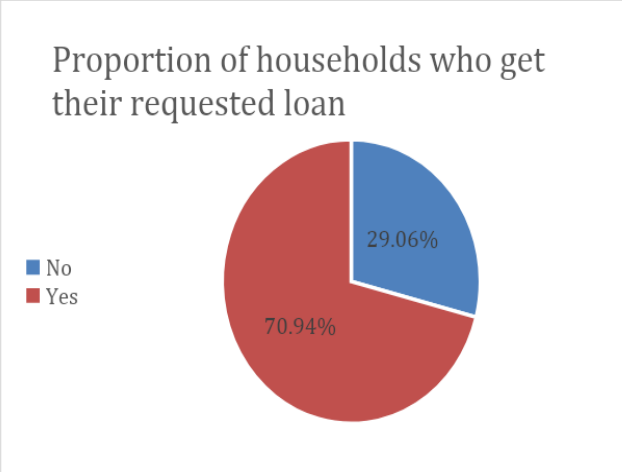
Figure 3- 24: Reasons for not Applying for Housing Loan

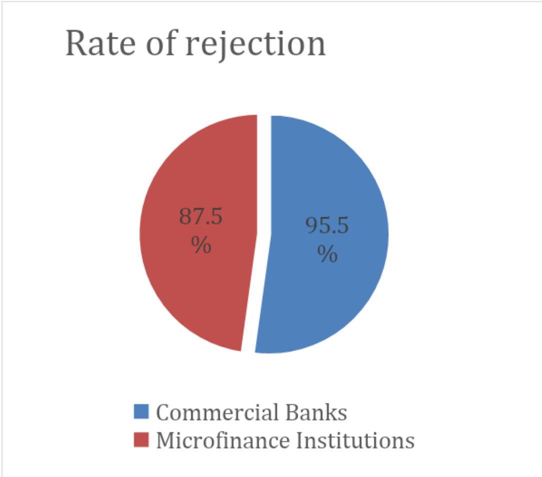


Source: Household Survey, 2023

The required loan was granted to 71% of the loan applicants and the remaining 29% of loan applications were rejected. From the supply side, 93.3 % of the financial institutions interviewed replied that they have rejected housing finance loan applications at least once and the rate of rejection is a little higher in microfinance institutions than commercial banks. This may be ascribed to the relatively risky pool of applicants in the case of microfinance institutions.

Figure 3- 25: Loan Application Acceptance Rate





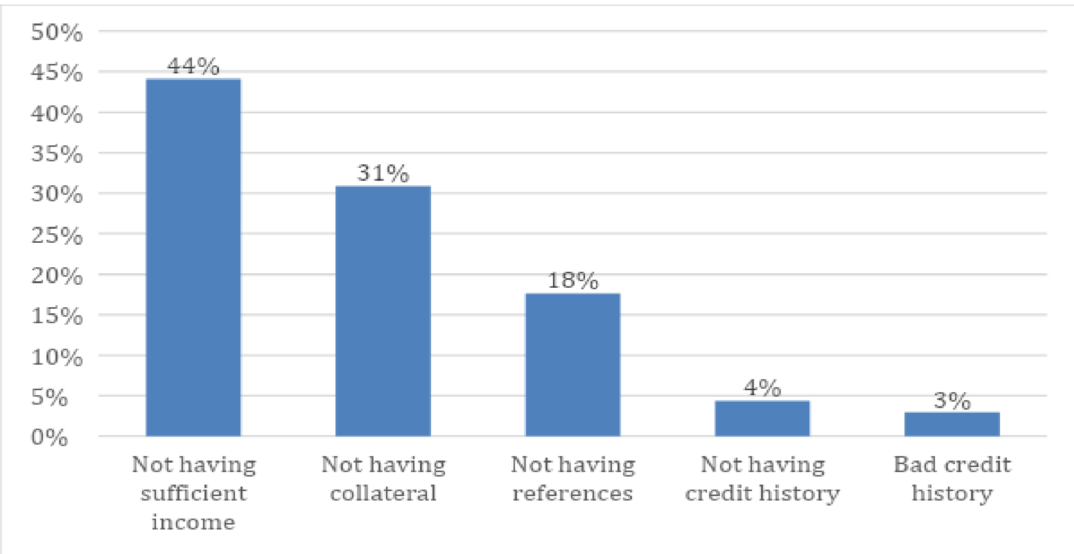
Source: Household Survey, 2023

IV. REASONS FOR HOUSING FINANCE LOAN REJECTIONS

There could be a lot of factors behind the rejection and the survey asks households to identify the potential reason for the denial of their loan application. As shown in Figure 3-26 below, households believe that not having adequate income, collateral and references are major reasons behind their loan application rejection. Adequate income and collateral are tools that lenders use to reduce information asymmetry problems: adverse selection and moral hazard. Not having credit history, however, is perceived to be less of a loan rejection point. It is a bit surprising given the importance of credit history for credit risk assessment.

From the supply side, applicant's lack of sufficient income, lack of collateral, absence of credit history, lack of loanable capital and lack of reference are the factors behind housing finance loan application rejection. Thus, what households perceived as reasons for housing loan rejection are more or less what the financial institutions base their housing loan decisions on. If anything, financial institutions value credit history more than it is perceived by households.

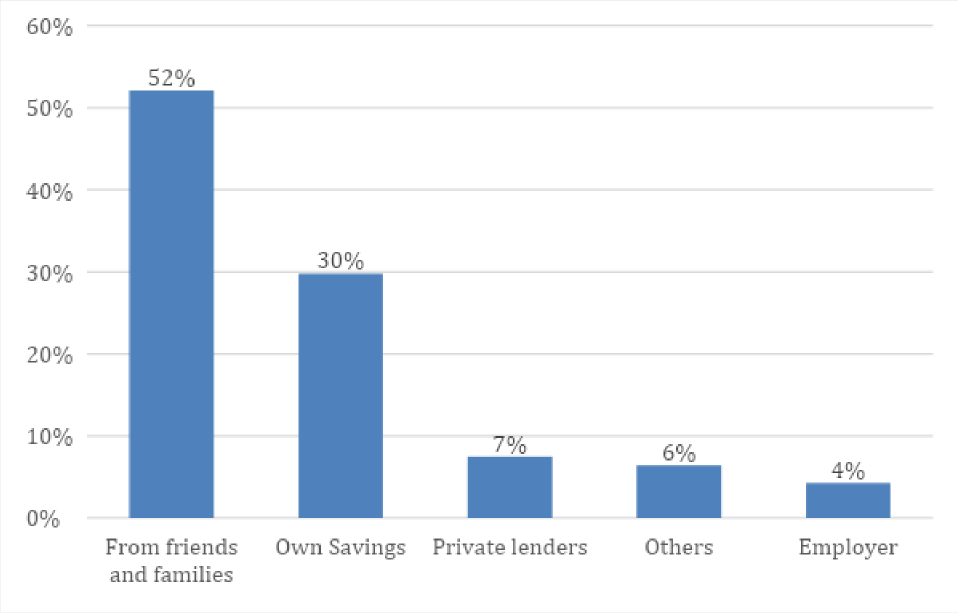
Figure 3- 26: Reasons for Loan Application Rejection



Source: Household Survey, 2023

In cases where households get less than 100% of their loan request, they primarily finance the gap by raising funds from friends and families (52%) and using their own savings (30%). Households also raise funds from private lenders and employers (see Figure 3-27 below).

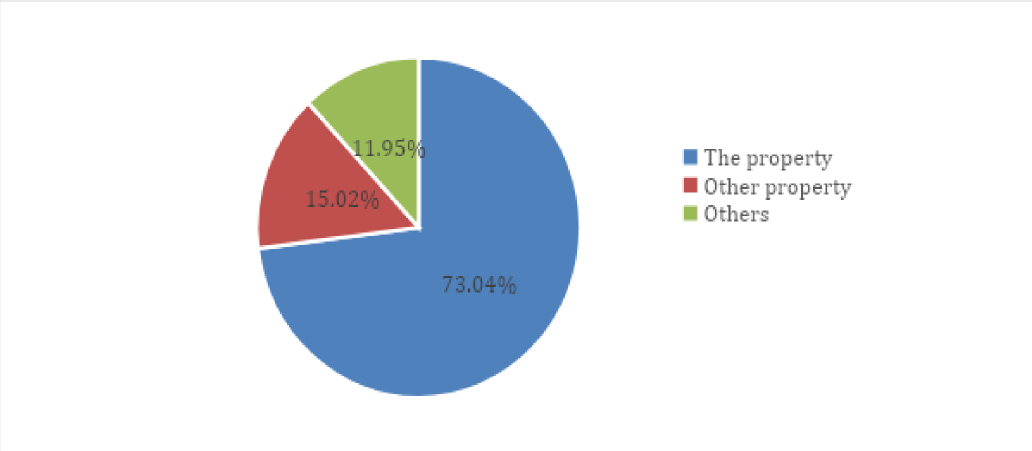
Figure 3- 27: Sources of Housing Finance to Fill the Gap



Source: Household Survey, 2023

As shown in Figure 3-28 below, households usually pledged the acquired property itself as collateral for a loan. Other properties owned by the borrower and salary are the other assets households pledged as collateral to obtain housing loans.

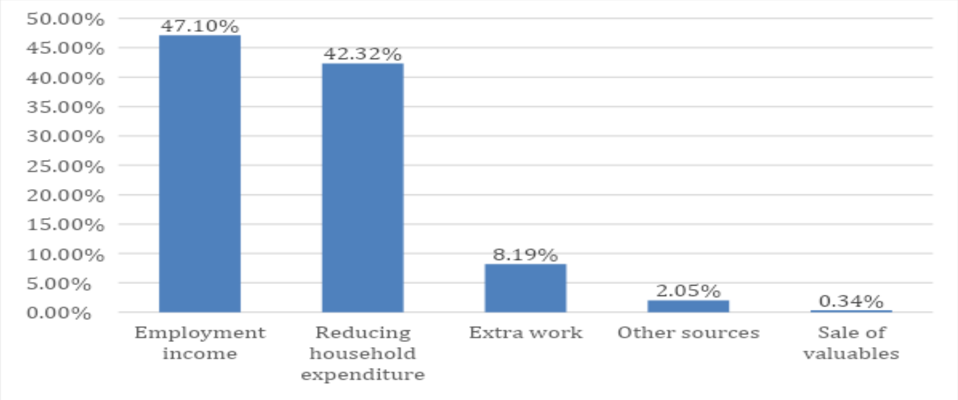
Figure 3- 28: Assets Pledged As Collateral



Source: Household Survey, 2023

Households commonly repay their loan using their employment income and by cutting their expenditure (See Figure 3-29 below). Only less than 11% of the households finance their loan through income from extra work, sale of valuables, and others. That is why, as discussed above, lack of sufficient income results in rejection of loan applicants.

Figure 3- 29: Sources of Funds for Loan Repayment

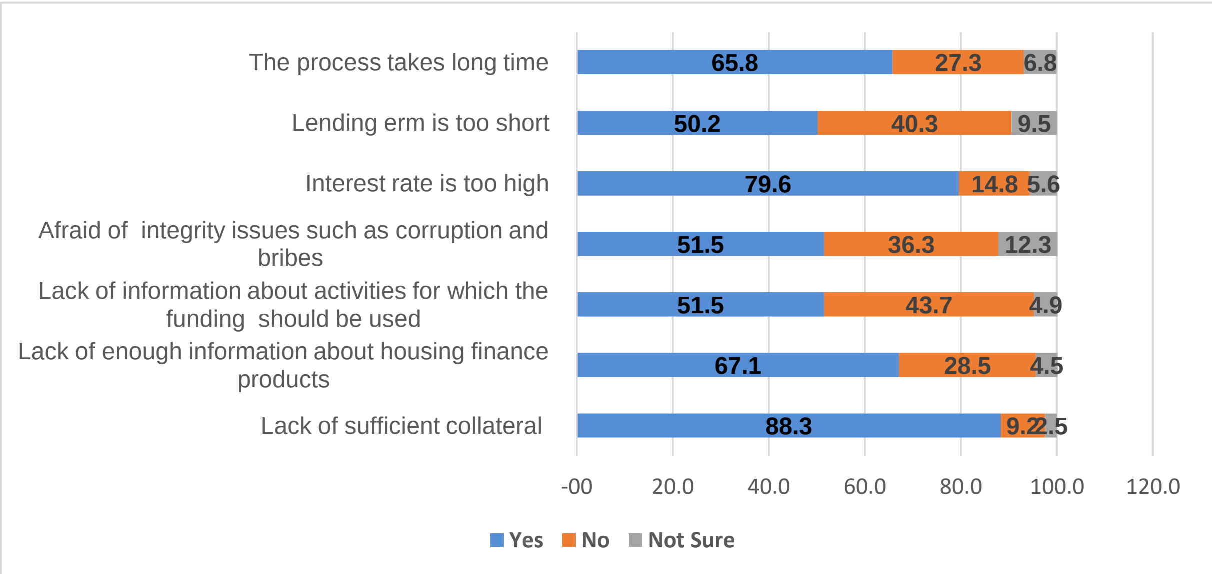


Source: Household survey, 2023

V. BARRIERS TO ACCESS HOUSING FINANCE LOANS

To understand what hinders households from applying or getting housing loans, households were asked to rank the barriers to housing loan/finance (See Figure 3-30 below). Lack of sufficient collateral, higher interest rate, lack of enough information about housing finance products, and the time it takes to process loans are the top four barriers that hinders households from applying/obtaining housing loans. Lack of sufficient collateral is what most households mentioned as an obstacle to housing finance loans and constraints all income categories, though it constrains lower- and middle-income groups much.

Figure 3- 30: Barriers to Access to Housing Finance Loans (in percentage)



Source: Household Survey, 2023

A. INTEREST RATE

It is not surprising that high-interest rates, collateral requirements, income, and qualification criteria are hindering low and middle-income households in financing their dwelling needs through formal sources of housing finance schemes. As shown in Figure 3-30, high-interest rates and unfavorable repayment conditions hinder households from accessing housing loans. The repayment period (i.e. usually 15 years) and high-interest rates (about an average of 24% for microfinance institutions and 22% for commercial banks) imply that the monthly installments are very high, and this makes the use of housing facilities unaffordable to households. This corroborates with our finding from the household survey, in which the overwhelming majority (80%, n=571) reported that interest rates on housing finance products are high, while 15% of the respondents mentioned that they don't perceive the interest rate on the housing finance products to be high (see Table 3-10 below).

Table 3- 10: Perception on Interest Rates

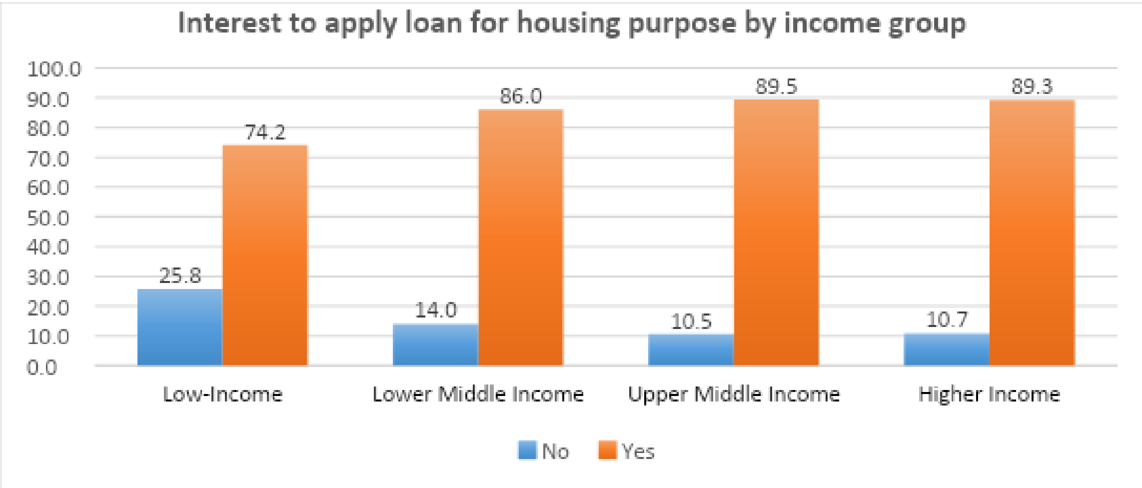
Housing finance products have higher interest rates than conventional banking products	Freq.	%
Yes	571	79.64
No	106	14.78
Not sure	40	5.58
Total	**717**	**100**

Source: Household Survey, 2023

B. LOW-INCOME LEVELS

In Ethiopia, the majority of the population live on income less than 2 US dollars. With this low level of income, many households are unable to feed their families. Even many high-level professionals cannot afford to repay a mortgage loan. For instance, to qualify for a housing loan to buy a two-bedroom condominium house which costs $ 102,000, one must earn $ 3,400.00 per month. This is by far greater than the salary of a medical officer or a university professor in Ethiopia. Only a few people working in some international organizations and top managers of a few private financial institutions can afford to repay a mortgage. Thus, it is not surprising that 26% of low-income households were not willing to apply for housing finance facilities (see figure 3-31). Figure 3-31 shows that the households' motivation to apply for housing loans increases with level of income.

Figure 3- 31: Housing Loan Demand Across Income Levels



Source: Household Survey

Moreover, due to inflation households' real income is continually decreasing and this further affects their ability to demand housing finance loans provided that the income of the low and middle-income (mainly salaried) borrowers are not likely to be adjusted within the short periods of time. Thus, high interest rates coupled with high inflation rates negatively affects the fixed income earners and prevents people from accessing housing finance loans. Overall, it can be argued that the low-income households of Ethiopia are excluded from the mortgage market. Opinions from the some of the household survey respondents indicated that pro-poor housing finance facilities will be welcomed earnestly. Various pro-poor products exist for low-income households in other African countries. For instance, in Angola, a human settlement non-governmental organization worked with government agencies to resolve the issue of economic exclusion through the provision of microcredit to the low-income group of the households. The agency also facilitated the securing of tenure rights for the poor (Cain 2007). Similarly, the Mchenga Fund for housing has been helping the urban poor in Malawi not only in housing but also to improve the lives of slum dwellers (Manda 2007). Another example of such microfinance models is the Kuyasa Fund, a South African non- profit microfinance institution that focuses on the provision of loans for use in housing. This scheme was found to be a viable option for improving housing delivery (Mills 2007). Moreover, in collaboration with Habitat for Humanity, Kenya Women Microfinance Bank and Centenary Bank in Uganda developed housing microfinance products for people living on $5-10 per day, and importantly accepted customary land ownership as a legitimate claim of secure tenure. In Ethiopia, however, such pro-poor housing finance facilities do not exist.

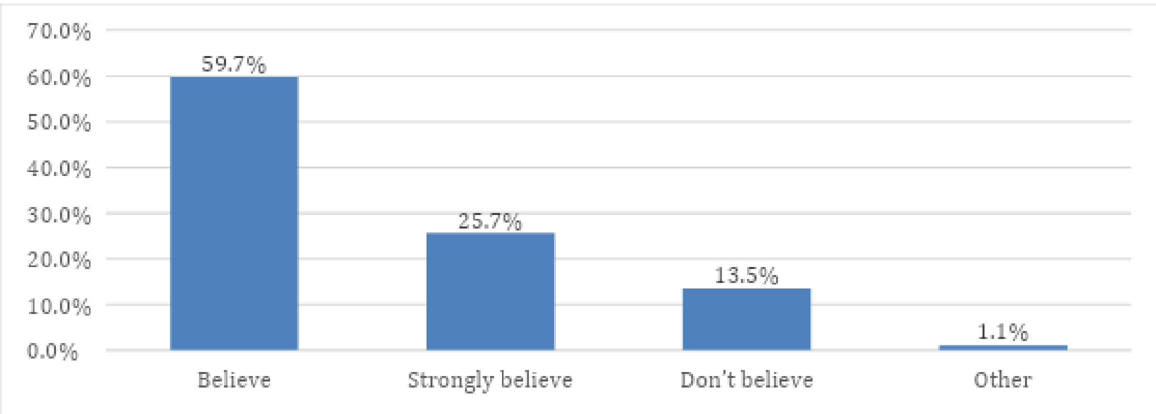
C. HIGH PRICES OF HOUSES

The high prices that real estate developers in Ethiopia charge for their houses make the use of housing finance loans very unaffordable to even those in the high-income group. As it is indicated above, in perspective of the land title problems, the banks are normally interested in providing mortgage loans to only people who want to buy houses that have been constructed by private estate developers. Yet, practically these houses are too expensive. For instance, currently a standard two-bedroom condominium house in Addis Ababa is being sold for about $ 102,000 (5.5 million ETB). The same property being built by real estate developers can cost about $ 150,000 if it is located in a high-class neighborhood. Real estate developers tend to charge higher prices to compensate for the fees and transaction costs they incurred during the process of acquiring land. The other reasons related to the high prices of houses are also due to the high level of inflation and depreciation of the Ethiopian Birr. These reasons provide important evidence for private real estate developers to largely shy away from providing low-income housing, in spite of having a large market and huge demand for low-income housing.

D. LACK OF KNOWLEDGE AND SKILLS

As shown in Figure 4-32 below, skills and knowledge about the housing finance market is believed by the majority of households (85.4%) to be essential to take advantage of the market. Skills and knowledge about the housing finance market could be enhanced through training, pamphlets, and adequate media coverages.

Figure 3- 32: Households Attitude towards the importance of skills and knowledge on Housing Market

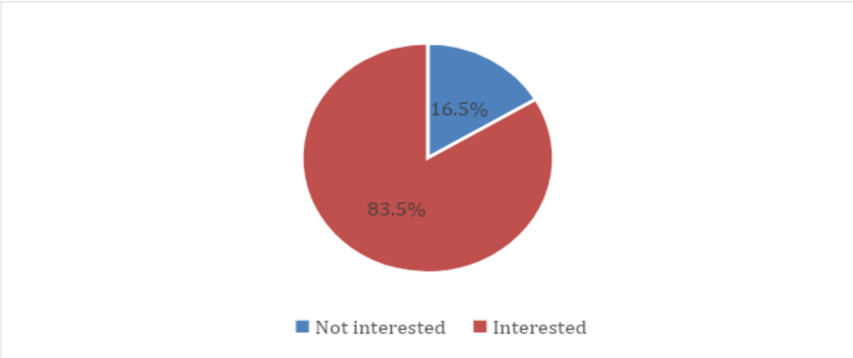


Source: Household Survey, 2023

VI. FUTURE HOUSING FINANCE NEEDS OF HOUSEHOLDS

In order to assess the needs of households for housing finance in the future, we inquired whether there is an interest to take any form of loans for housing purposes. As shown in Figure 3-33 below, household demand for future housing loans is very high. Only 16.5% of the households show no demand for future housing loans.

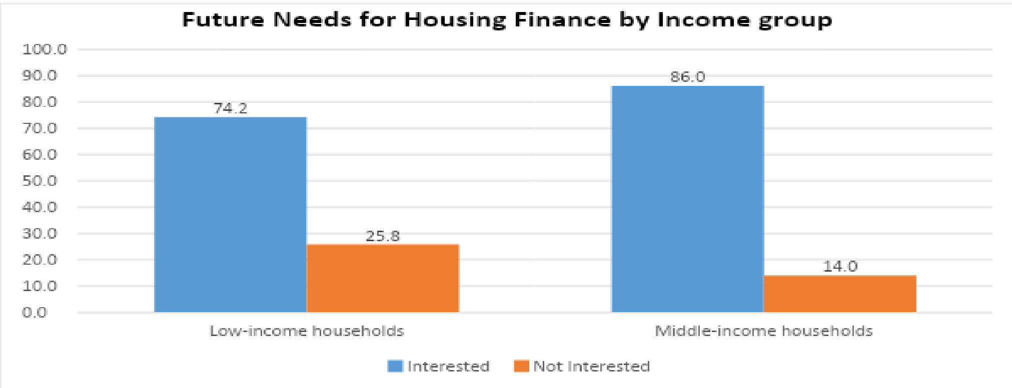
Figure 3- 33: Future of Demand for Housing Finance



Source: Household Survey, 2023

Further disaggregating the need for housing finance, the finding shows that there are higher future needs for housing finance products by low- and middle-income households. The result in Figure 4-46 below reveals that the overwhelming majority, 74.2% of low-income and 86% of middle-income households, wish to apply for any form of housing loan in the future.

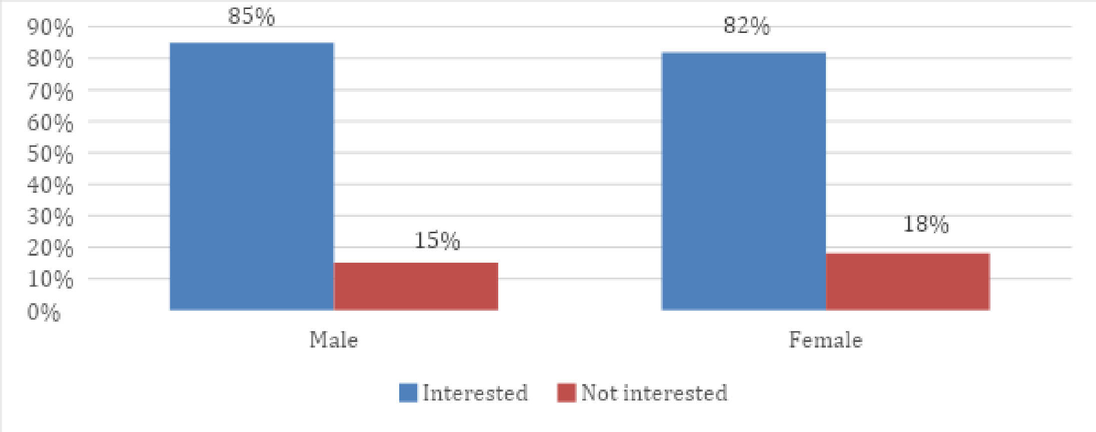
Figure 3- 34: Future Needs for Housing Finance by Income Group



Source: Household Survey, 2023

Nevertheless, as shown in Figure 3-35 below, the need for future housing finance is not that much different between males and females.

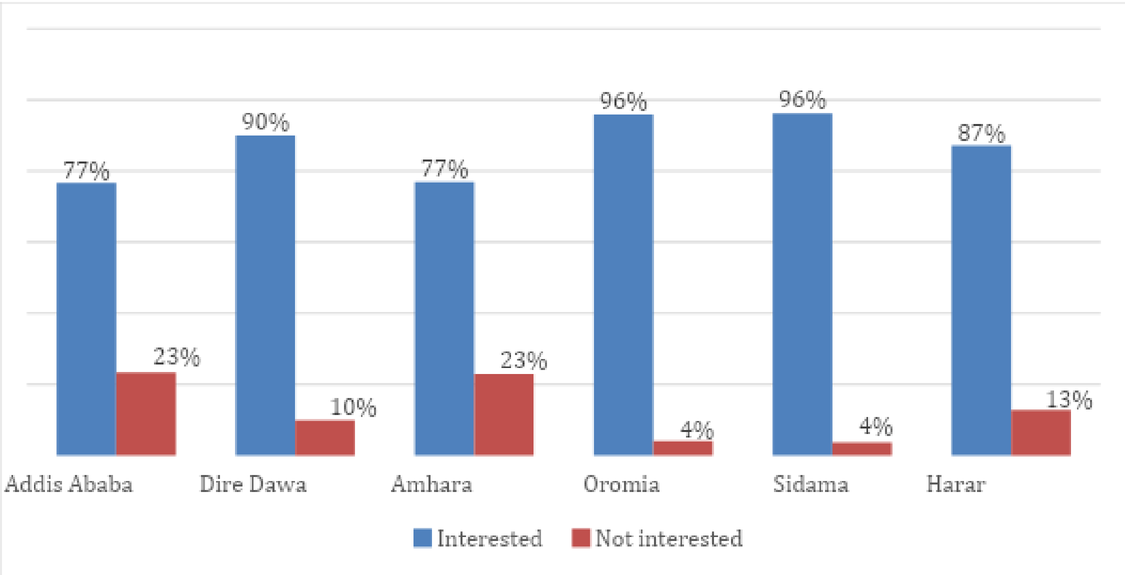
Figure 3- 35: Future Needs for Housing Finance by Gender



Source: Household Survey, 2023

Households' interest for future housing loans, however, is different across regions. Households living in Addis Ababa and in the Amhara region are less interested in taking housing loans in the future than those in the other regions.

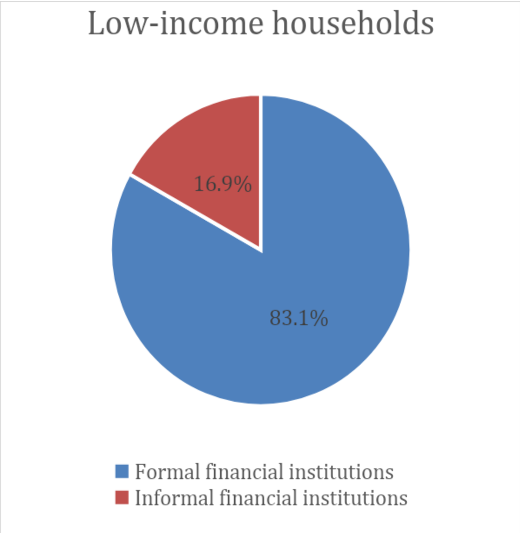
Figure 3- 36: Future Needs for Housing Finance by Region

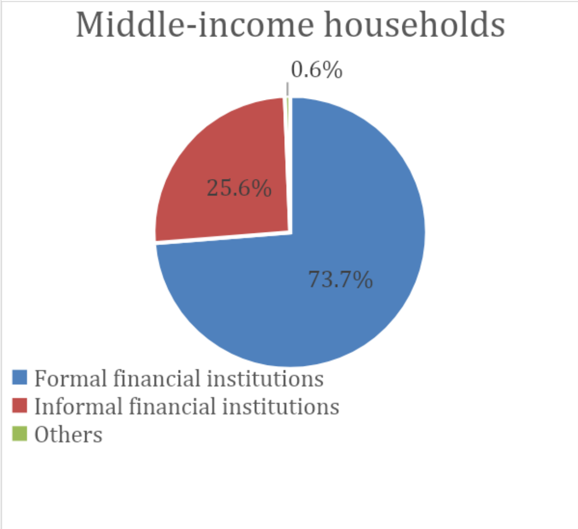


Source: Household Survey, 2023

We further analyze the future demand for housing finance in terms of the financial institutions the households wish to borrow from in the future. Majority of both the low- and high-income households will prefer formal financial institutions for their future borrowing.

Figure 3- 37: Households Future Preferred Financial Institution for Housing Loan

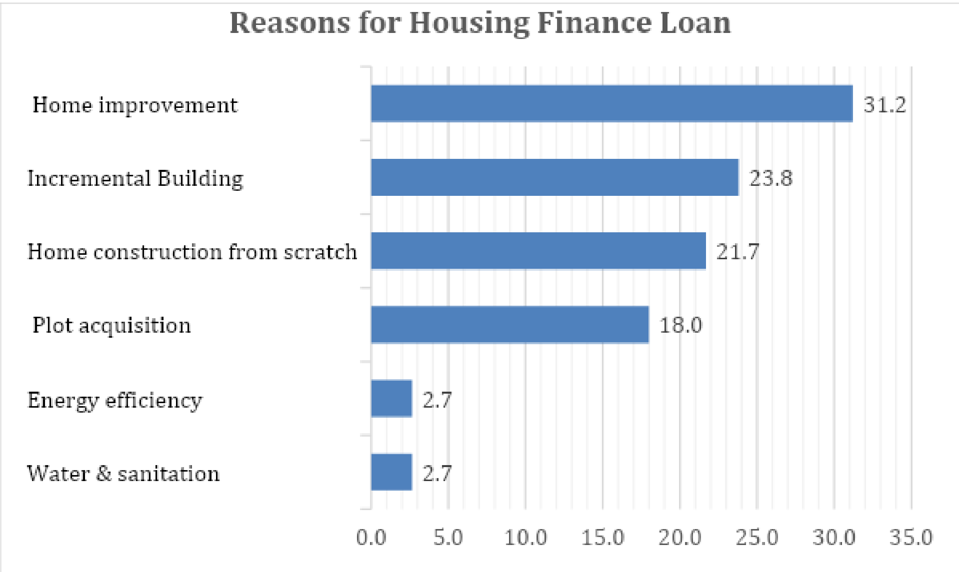




Source: Household Survey, 2023

Form Figure 3-38 below we can understand that 31.2% of low-income households demand the housing loan for home improvement and 23.8% for incremental housing. This provides an indication that the households prioritise the home improvement aspirations over other kinds of housing finance products which is consistent with their preference of loans from microfinance institutions.

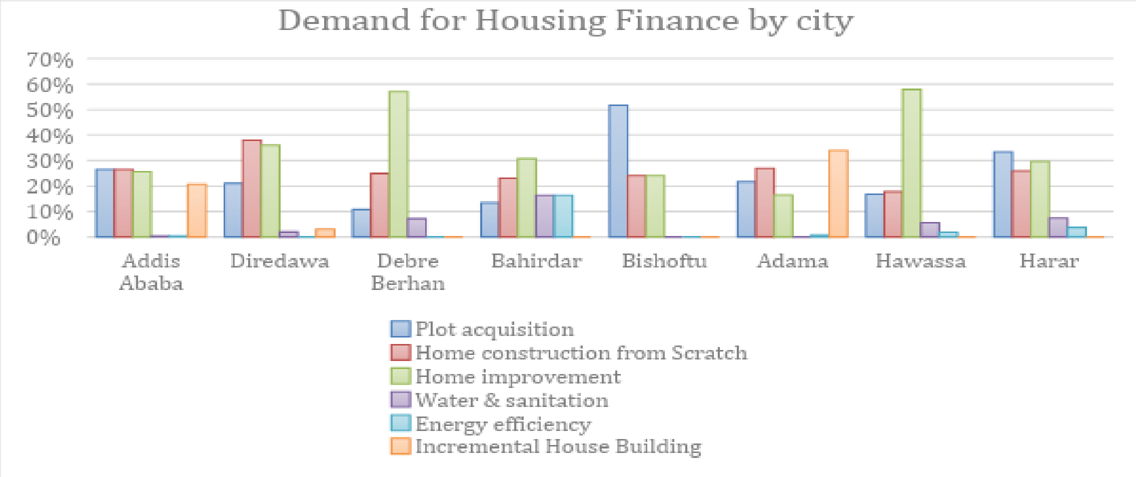
Figure 3- 38: Reasons for Housing Finance Loan



Source: Household Survey, 2023

Further disaggregation of the reasons households need for housing finance demand by city indicates that, on average, the overwhelming majority of the households in each city demand housing finance loans for home improvement. For instance, households in Hawassa (58%) and Debre Birhan(57%) prefer to make housing finance applications for home improvement loans. Accordingly, households from Adama (34%) and Addis Ababa (21%) wish to take housing finance loans for incremental building.

Figure 3- 39 : Demand for Housing Finance by City

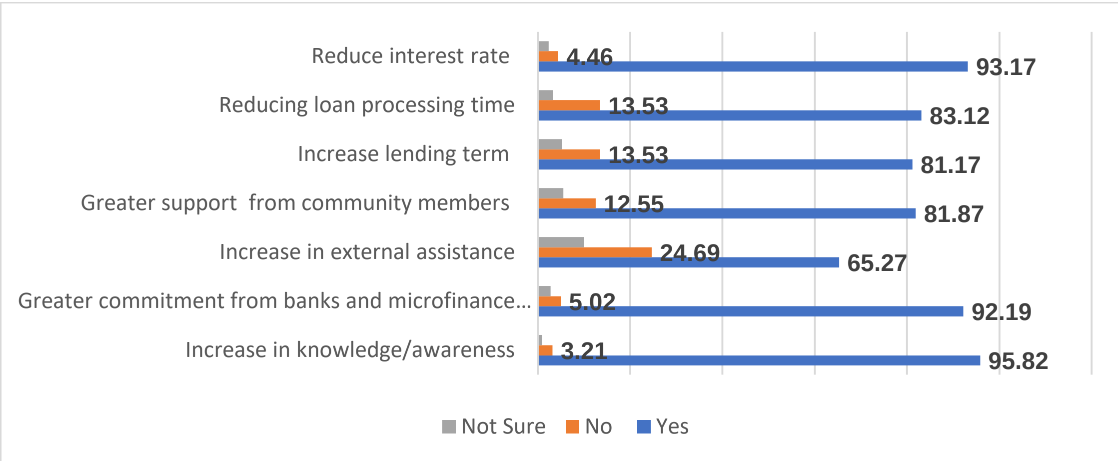


Source: Household Survey, 2023

VII. SUPPORTS NEEDED TO INCREASE ACCESS TO HOUSING FINANCE

The households feel that reduction of interest rate, increase in awareness and knowledge about housing finance loans, and commitment from financial institutions will improve access to housing finance (See Figure 3-30 below). Reduction in loan processing time, support from community members, and increase in term to maturity are also believed to improve households' access to housing finance.

Figure 3- 40: Perception on Mechanisms to increase Accessibility of Housing Finance (in percentage)



Source: Household Survey, 2023

3.9. Econometric Analysis of Demand for Housing Finance

I. FACTORS AFFECTING THE LIKELIHOOD OF APPLYING FOR HOUSING FINANCE

Annex 2 (in the Appendix) presents the likelihood of applying for a housing loan. Employing a probit estimation approach, of Heckman model, we have presented the results of four different models as presented in columns one to four. In the first column, we included only income as a potential determinant of the likelihood of applying for housing finance. In the second model, we controlled for the demographic variables that potentially impact the probability of applying for a housing loan. In the third model, in addition to income and demographic variables, we controlled for socio-economic variables that have been established in the literature as potential determinants of the application for housing finance probability. In the last model, we included the location characteristics by controlling for cities to capture the potential impact of peculiar features of towns/cities where the households apply for housing finance.

Income of households is one of the determinants of the likelihood of applying for housing finance. Following the empirical model, developed based on theories related to demand for housing, we started the empirical analysis with the basic model whereby the likelihood of applying for housing finance is given as a function of income of the households[12]. We used a categorical approach of measuring income classifying the households into low-, lower-middle, upper-middle, and higher income where higher-income is used as the base level for the variable. The result clearly shows that being a low-, lower-middle, or upper-middle income household, compared to a high-income one significantly reduces the probability of applying for housing finance. The results are consistent under the four models under consideration—where demographic, socioeconomic, and location factors are controlled for. The result is in line with the literature and intuitive given that income earned by a borrower determines the ability to repay borrowed money thereby influencing probability of applying for loan (Cranston 2002; Akinwunmi, 2009).

Demographic factors included in the analysis, as presented in the second column of the table, are age and its square, sex (1 and 0 being male and female, respectively), marital status (married being a base level of the variable), and household size. The result shows that the size of the household determines the probability of applying for housing finance; and accordingly the larger the household size, the higher the likelihood of applying for a housing loan. This is intuitive because the more the size of the household, the more the cost of rent as the household needs to rent a house that can accommodate a larger household. This cost push might trigger the higher likelihood of applying for housing loans, of larger size households.

Socio-economic factors such as education, industry type in which the household head is employed, financial literacy, and social capital are also included, as presented in the third column of the table, in the analysis. Education is classified as no formal education, primary or below, secondary and tertiary and above education while tertiary and above is used as base level of the variable. The result, when location level factors are controlled for as presented in column 4, shows that being only primary education (or below) complete negatively affects the likelihood of applying for housing loan; the result implies that compared to households who have attained tertiary (or above) education , those who have attained only elementary or below are less likely to apply for housing finance. We also included industry type, in which the household head is engaged, that consists of (a) manufacturing and construction, (b) SMEs, (c) urban agriculture, (d) transport, communication, and warehouse, I trade, sale, and catering, (f) social service and public management, and (g) finance and insurance. Finance and insurance type is used as base level for the industry type variable. The result shows that, once location factors are controlled for, urban agriculture is found to be significantly and positively affecting the probability of applying for housing finance. In other words, compared to those who engage in finance and insurance, the likelihood of those working in urban agriculture applying for housing loans is significantly higher. The potential explanation for this is that those who work in urban agriculture are households recently included in urban territories from rural provinces and as such are with more ownership of plots of land. And given that the large proportion of costs associated with house ownership is linked to acquiring a plot of land, those engaging in urban agriculture apply for housing finance with higher likelihood as their mere costs are related to construction. The result, that access to housing finance is linked to the type of industry in which the households engage, is in line with the literature; for instance, (Li, 2010) found similar results in the context of China.

[12] Although our baseline empirical model of demand for housing is given as a function of income of the households and interest rate, we could not include the later given that there is no sufficient variation in the variable

We indexed financial literacy, employing principal component analysis, from five indicators capturing different dimensions of the variable. The indicators include the literacy of the individual related to rational investment decision making, ability to comprehend change in purchasing power of money as general prices change, ability to compute simple and compound interest. The results show that both under column three and four (where city characteristics are included in the model), the effect of financial literacy on the probability of applying for housing finance is statistically insignificant. We also indexed social capital using principal component analysis from three indicators: (i) whether member(s) of the household is(are) member(s) of organizations, networks or associations, (ii) the degree of their participation in the association, organization, and networks while the degree of their participation is proxied by being a leader, active participant, somehow active participant, or no active participant in decision making, (iii) change in social capital of the household that is proxied by, compared to the last five years, whether members of the household participate in more, less or same number of organizations, associations, and (or) networks. The result shows that social capital significantly increases the probability of applying for housing finance. Put differently, households with more social capital are more likely to apply for housing loans. The finding is intuitive given that social capital that captures among others the quantity and quality of interpersonal relationships and trust, plays an important role in access to finance (Guiso et al., 2004; Heikkilä et al., 2016).

Location characteristics, proxied by location of the households' residence, is also one of the factors included in the analysis of a household's probability to apply for housing finance. The last column reports the result of the regression when we control for location characteristics captured by the location of the households' residence. The sample cities of the research include Addis Ababa, Dire Dawa, Debre Birhan, Bahir Dar, Bishoftu, Adama, Hawassa, and Harar while the capital is used as a base level for the city variable. Most of the cities except Bishoftu and Hawassa (dropped from the regression) positively and significantly impact the likelihood of applying for housing finance. Put differently, compared to households residing in Addis Ababa, the likelihood of households living in cities such as Dire Dawa, Debre Birhan, Bahir Dar, and Adama applying for housing finance is higher. The potential explanation for this is the comparatively higher cost of plot of land for housing in Addis Ababa; and as such the fact that cost of plot of land is far lower in the regional cities compared to that in the capital may explain the reason behind the significantly higher probability of applying for housing loan in those cities. On the contrary, compared to households living in the capital, those residing in Bishoftu are significantly less likely to apply for housing finance. The potential reason for this is that Bishoftu is tourist centre and urban land is being largely directed towards hotel and tourism industry; such a clustering of the city for hotel and tourism industry and hence directing more of urban land towards those sectors may raise cost of plot for housing thereby reducing the likelihood of households applying for housing loan as compared to those residing in the capital. The finding related to differential likelihood of households' application for housing finance is consistent with the literature showing that regional socio-economic characteristics determine the financial outcomes of households including their access to credit (Guiso et al., 2004).

II. FACTORS AFFECTING THE LIKELIHOOD OF GETTING HOUSING FINANCE

We can observe whether a household's application for a housing loan is accepted (or rejected) and loan approved as a percentage of total loan request only after we observe that the household has applied for housing finance. As such, we employed the Heckman model which is an appropriate model for the problem at hand to estimate demand for housing finance. In this section of modelling demand for housing finance, we used two proxies for the dependent variable which is demand for housing finance. First, we used whether the household got the loan as one of the proxies of demand for housing loan; and second, we used the amount of loan approved as percentage of loan requested as a proxy for the variable. Annex 3 presents the results.

A ***demographic factor*** that significantly determines the demand for housing loans is household size; although its effect on probability of getting housing loan is statistically insignificant, household size significantly reduces a household's approved loan as a percentage of loan requested.

The industry type factor shows that being in the manufacturing and construction, urban agriculture, trade, sale and catering significantly reduces the probability of getting a housing loan (for those who have applied for it) compared to those who work in the finance and insurance industry. Similarly, compared to those who work in the finance and insurance industry, being in the manufacturing and construction, and trade, sale and catering significantly reduces the amount of loan approved (as percentage of requested loan amount) ; The finding that industry type is associated with housing loan access is in line with the literature (Li, 2010) given that salary may vary across industries thereby determining the paying capacity of the households; and moreover, some industries may facilitate preferential access to credit, the case in point being financial sector in Ethiopia where their staffs have better access to credit related housing and also at lower rate than market interest rate.

Financial literacy is found to be a positive and significant determinant of housing finance and as such households who are financially literate have higher probability of getting a loan. The result is in line with the literature: the literature evidences that financial literacy, that measures how well individuals can understand and use personal finance-related information (Huston, 2010), is positively associated with better credit decisions; and as such studies suggest that a person's finance-related human capital influences borrowing behaviour. The result is also in line with the literature that contends that access to loan mainly by the poor and low income is generally impeded by their opaque financial information; and as such studies contend that financial literacy boosts access to credit (World Bank, 2014; Xu, 2020).

Location factor is also found to be among factors determining the likelihood of getting housing finance. Households who reside in Dire Dawa, Bahir Dar, Debre Birhan, and Hawassa (and have applied for housing loans) have higher probability of getting a loan compared to those who live in Addis Ababa. On the contrary, compared to those who live in the capital, households residing in Harar have less probability of getting a loan applied for housing. In terms of the amount of housing loan as percentage of what is requested, households who reside in Dire Dawa, Bahir Dar, and Adama get a higher percentage of the requested loan compared to those who reside in the capital.

A. PROSPECT OF DEMAND FOR HOUSING FINANCE

Low income and lower-middle income households' likelihood of applying for housing finance and amount of housing finance they will apply for in the future are significantly less compared to that of high-income households as presented in Annex 2. As such, as presented in column 2 of Annex 2, income is found to be one of the significant determinants of the magnitude of future loan applications. Accordingly, the magnitude of loan application of low and lower-middle income households significantly reduces compared to that of high-income ones.

Demographic factors such as age, marital status, household size, financial literacy, and education are also found to be determinants of demand for future housing finance. The result related to age shows that the younger the household head is the lower likelihood that he/she tends to apply for housing finance in the future while the older he/she gets, the higher the probability that he/she applies for future housing loans. Similarly,the lower the age of the household head is, the more the amount of loan applied for will be; the older the household head gets, the lower the magnitude of loan applied for will be; the results are consistent with the literature (Akinwunmi, 2009; Li, 2010). Marital status shows that compared to married households, the divorced ones will be applying for lower amounts of housing finance. The result also shows that those who are financially literate will be applying for more housing finance. This is intuitive because in a country where the inflationary pressure is getting higher, borrowing more is rational decision making given that inflation redistributes income from savers to borrowers. And financially literate households understand this and as such the result that financial literacy significantly increases the magnitude of housing loan to be applied for is intuitive.

Household size positively impacts the probability of future applications for housing loans. This is potentially related to the burden of cost of renting for larger size households. Consistent with the literature, compared to the tertiary (or more) school graduate households, the likelihood of households with no formal education and those who have attained only elementary or lower school applying for future housing finance is significantly less. Li (2010) found similar results; in the case of China, education is positively associated with housing loans.

Location factors also determine the prospect of demand for housing finance. Interestingly, the magnitude of housing finance loan application by households living in all the sample cities except that of Bishoftu will be lower compared to those who live in the capital. This is intuitive given that the cost of owning a house in Addis Ababa is higher compared to other cities mainly due to cost associated with land acquisition. On the contrary, residents in Bishoftu will be applying for higher housing loans compared to those who live in the capital. This result might be attributed to the fact that Bishoftu is a city which is a centre of tourism and hotel industry and as such the cost of accessing a plot of land for housing is high. Moreover, many of the well do households working in the capital live in the city given its proximity to Addis Ababa making the cost of a plot of land higher in Bishoftu.

4. Recommendations and Way Forward

The following recommendations are drawn from the results of survey analysis which is also supplemented by the points raised during key informant interviews, contextual and macroeconomic data analysis results.

- **Establishment of Housing fund*:*** Most key informants believe that housing finance, which needs long term investment, is not easily resolved by separate efforts of commercial banks or government funds. It needs cross-coordination of national stakeholders to draw common policies and programs that work cordially to raise long-term funds. This is because an alternative source of long-term funds is crucial for resolving housing finance barriers both in short and long term. From their experience, they argue that it comes to the point where it is impossible to finance long-term housing products via collecting short-term deposits as the saving appetite is dropping significantly due to high inflation. Hence, establishing a special housing fund at the country level deemed necessary as an alternative source of funds. A Centralized housing fund could draw policy, regulation and directives pertaining to housing finance and then collect funds in a variety of means that lasts for a longer time for instance such as usage of life insurance, retirement pension, etc. This is because life insurance or retirement pensions last for a longer time and can resolve current problems by making special agreements with mortgage banks. Beside this, finding international sources of housing funds such as WB, IMF or NGOs could also be the other way.
- **Reducing land Lease*:*** Addressing HF to LME groups should start from easing the methods ***of land provision***. According to most informants, the government should draw up a policy framework and readjust land lease prices to real estate developers and individuals since these have an indirect effect on the affordability and prices of housing products.
- **Availing land for Cooperatives:** According to most informants, current housing challenges pertaining to low and middle income brackets could be regulated by availing land in grouping LMI households/communities at micro level. According to them, these rescues unnecessary efforts and costs drawn at individuals by encouraging collective action. Once the land is availed at lower lease/freely at group level, then commercial banks could easily finance to construct apartment thereby optimally utilize the financial and land resources at a time
- **Establishment and Expansion of Mortgage Banks:** To date, except Goh Housing Bank, all informants argue unavailability of independent private or government mortgage banks that work exclusively on housing finance, let alone those targeting low income households. In addition, there are neither policy framework that encourage existing banks on long term loan nor policy direction related to the establishment of mortgage banks. When in practice such banks need a legal and structural framework different from the conventional banks.
- **Subsidising Construction Material:** According to the informants, resolving housing finance has a direct association with controlling the inflation on construction and finishing materials. This could be achieved in putting special subsidies on construction material in general or drawing special regulation for low income brackets. And the cumulative impact of these incentives is expected to be reflected in the final prices of housing units that can be affordable for the low income.
- **Inviting Foreign Investment in the Housing Sector:** Opening the housing and the housing finance market for foreign investors is suggested to have an important role in catalysing the housing ecosystem as they can bring low cost housing technologies and opportunities that can be affordable for the low income households.
- **Revising Regulation on Loan Portfolio Allocation:** It is observed that the NBE's prudential monetary policy regulations on long term loan portfolio allocation of financial institutions are limiting their loanable fund for housing finance. Therefore, these regulations should be revised in a way that moves additional loanable capital

to long term loans such as housing finance. Furthermore, there should be policy frameworks that encourage and attract long term deposits.

- **Housing Finance Product Segmentation:** Customer segmentation based on income, meeting the formal requirements and designing different products in relation to specific household socio-economic characteristics. In addition to this, similar to other products/services, MFIs should also put a greater emphasis on housing products, in allocating a viable loan portfolio and size given that the existing NBE's regulation on loan portfolio has a room for revision.
- **Ensuring Macroeconomic Stability:** Given the fact that macroeconomic stability is an important enabling environment the government should play its role in ensuring macroeconomic stability and adjust the current inflation through proper market monitoring as the high inflation discourages saving in financial institutions and further reduces the amount of loanable funds.
- **Nurturing Linkage between Formal and Informal Financial Service Providers:** Creating a channel that connects commercial banks with the cooperative will help to provide affordable housing finance products on a large scale. This would be a feasible approach for both the commercial banks and members of the cooperative as the bank is required to deal with the cooperative rather than individual applicants. It also creates a platform for efficient group housing for the low income households.
- **Improving Financial Data Recording System:** There should be a national credit institute and a unique national ID where all the necessary financial records can be stored in the national credit bureaus system and be easily accessed by financial institutions for background checks, risk assessment and follow up. This is raised as a prominent concern for financial institutions to disburse housing loans as they do not have any mechanism of investigating the credit history of an applicant.

4.1. Potential interventions areas for Housing finance market value chain in Ethiopia

Findings from this study indicated that housing shortages and poor development of housing finance is evident in Ethiopia. Rapid urbanization coupled with population growth is posing a serious challenge to a very limited supply of adequate housing and urban land. Consequently, as it is revealed in the findings of the study, there exists a considerable potential demand for investors to engage in the housing finance opportunities for the lower and middle income groups. Thus, access to housing finance and its integration into the housing delivery process (whether developer built/mortgage or incremental/non-mortgage) necessitates a strong emphasis, as does an explicit pro-poor intervention. As a result, many types of interventions are required throughout the Ethiopian housing finance value chain to reap the benefits of pro-poor housing finance solutions. The following are potential intervention areas for Ethiopia's housing finance market value chain.

Developing Housing Microfinance Products: Findings from key informants, situational analysis of housing finance markets and quantitative surveys of this study provides clear insight into the growth of demand for interventions in the development of housing microfinance products. In Ethiopia, as in many other developing countries, the ever-increasing population and rapid urbanization are driving up the demand for urban housing units. Thus, housing microfinance (HMF) in general can be taken as a potential opportunity, targeting the majority of the lower and middle income groups. Findings from this study provide a right signal that for the flourishing microfinance sector in Ethiopia; there is enormous potential for HMF lending to contribute towards the alleviation of the access and shortage of end user housing finance in Ethiopia. The benefit that the poor reap from the HMF is that it is very responsive to their actual housing finance needs. In Ethiopia, there is a need for coordinated action among housing development stakeholders to promote access to and utilization of HMF. This is suggested as a viable intervention area because it is meant to fulfill the housing finance needs and preferences of low-income households, particularly those with limited or no access to the banking sector and formal mortgage loans. It can be used by families who build, improve, or extend their homes incrementally. Capital for housing microfinance investments can be obtained from a variety of sources. These sources include international development institutions with the goal of increasing the scale of housing development and focusing on improving the lending activities of non-governmental organizations (NGOs) as well as savings and credit cooperatives. Other development institutions concentrate on general microfinance by taking on the first loss risk and sharing it with commercial operators. Habitat for Humanity (HfH) is an example of an HMF provider, as it is involved in housing finance through micro-mortgages and stimulating higher delivery in the affordable housing market. HfH developed the MicroBuild Fund, a global fund for the distribution of debt capital and capacity building to microfinance institutions. The New Urban Finance Facility for Africa is a US$100 million facility that is currently being formed with the goal of enabling investment in African cities through local banks and microfinance organizations for affordable housing and essential amenities. Rooftops Canada, Canada's cooperative and social housing sector's international development program, collaborates with Canadian and foreign partners to improve housing conditions, build sustainable communities, and advance a common vision of equitable global development. As a result, the implementation of this intervention necessitates the following primary activities includes:

- Putting in place regulations regarding caps on interest rates and the creation of credit information bureaus to prevent over-lending by MFIs to address concerns related to high-interest rates and over-indebtedness among low-income households
- The importance of making small scale housing finance accessible: removing obstacles in relation to securing title deeds, which can be used as collateral in lending transactions, and the raising of the maximum loan-to-value ratio.
- Provide long- and short-term credit for housing using group pressure and mutual support as guarantees for loan repayment by obtaining a pledge from all members of the group, which commits them to repayment in case the borrower fails to do so. The group selects the member most deserving of a housing loan under strict allocation rules.

- **Housing Finance Support Services:** According to the study's findings, housing finance support services (i.e. capacity building and technical) should be considered as major components of housing microfinance interventions. Construction design, budget verification, guidance on appropriate purchases, permits, and legal requirements, construction oversight and verification, technical inspection and supervision, client and artisan technical capacity building, and bulk land purchase negotiation are all part of these support services. According to this study, there is a large potential investment market in Ethiopia's housing finance value chain for financial service providers to engage in housing support services, which can help them expand and develop their housing finance loan portfolio. In this context, HMF business processes supported by institutions such as PlaNet Finance, which provides organizational counsel to the Kuyasa Fund in South Africa to assist with loan expansion, might be highlighted as a lesson. Furthermore, Habitat for Humanity's construction assistance services in Malawi, Ghana, and Uganda should be also cited as best practices.

- **Subsidizing informal and irregular Income**: According to the study, financial institutions prefer to provide house finance solutions to those who have a regular and sufficient flow of income. This implies that people with informal and irregular income, which make up a substantial portion of low-income households, are often neglected when it comes to housing financing loans. This points to the need for new opportunities to make the housing finance sector more accessible to Ethiopia's poor and to address gaps in the housing value chain. In this regard, Morocco's FOGARIM, which ensures that low and/or irregular-income households have access to housing finance loans, can be applied to Ethiopia's housing finance sector, since the FOGARIM has provided access to housing bank loans to populations who have no access to such loans.

- **Establishing Housing Finance Fund:** Housing finance fund establishment was the frequently cited interventions during key informant interviews with financial sector officials. Moreover, this can be taken into consideration the prioritization of the niche market interventions and development of non-mortgage finance could be a top policy agenda for targeting the micro builders who have insufficient income stream to access or use mortgage finance. The development of a focused apex fund that provides risk capital for new and emerging small-scale enterprises focused on: housing micro-lenders, micro builders and household builders, landlord entrepreneurs, and others is of paramount importance. This would not only direct capital to where it is most needed, it would also support the capacity development of this submarket of Ethiopia's housing finance sector so that it can enhance its quality and increase in its scale.

- **Pension Funds to Support Local Currency:** According to our key informant interviews with senior executives of Ethiopian financial institutions, they opt for alternative sources of funding to boost the growth of the housing finance sector. Non-state sources of investment capital for housing finance, such as pension funds and private investment funds, can be used to develop new sources of investment capital for housing financing. Foreign currency fluctuations are a significant risk for many initiatives that rely on foreign funding to meet their capital requirements. This issue is particularly related to the scarcity of long-term finance, and pension funds play a key role in this area. Old Mutual, a pension fund in South Africa and Zimbabwe, has devised a system to collaborate with local banks to boost the housing finance sector. Pension funds often account for the largest portion of domestic savings and hence provide a significant source of local capital for housing financing investment. Pension funds can be invested directly in housing development projects, purchase equity stakes in finance institutions that specialize in housing finance products (i.e. mortgage banks), and lend money for mortgages and housing development lending. Other mechanisms for utilizing pension funds for housing include allowing fund members to utilize their savings as collateral for third-party housing finance loans and allowing members to draw on their pensions for housing-related expenditures.

- **Establishment of Ethiopian Mortgage Refinancing Company:** Development of the housing finance market has a positive relationship with growth of the capital market in an economy. The expansion of housing finance is assisted by the development of capital markets, and similarly the growth of capital markets also helps the expansion of housing finance. The development of both contributes to overall growth of the economy[13]. Our findings indicated that mortgage uptake. in Ethiopia is low due to capital inadequacy of financial institutions, high interest rates and macroeconomic instability. To address the low mortgage uptake, the government should start to lay down the necessary infrastructure that include the establishment of the Ethiopian Mortgage Refinance Company (EMRC). It will play a key role in financing the primary mortgage market with low interest rates which will translate to significantly lower mortgage rates.. During our key informant interviews with the officials of the capital market authority of Ethiopia has also acknowledged the need for affordable finance housing products and planned to push the opening up of the secondary market, i.e Mortgage Refinancing Company which is currently non-existent in Ethiopia. Experiences from peer African countries indicate that the capital market support, for example, the Nigeria Stock Exchange and the Rwandan and Ugandan Capital Markets Authorities have further engagements on affordable housing products for their platforms – REIT's (Real Estate Investment Trusts). For instance, Kenyan Mortgage Refinancing Company actively participates in the capital markets through the issuance of bonds and term notes. Eighty % of ownership in KMRC is by the commercial banks while 20% is with the government. Moreover, much can be taken as a lesson for Ethiopia in

[13] Housing and Housing Finance—A Review of the Links to Economic Development and Poverty Reduction John Doling, Paul Vandenberg, and Jade Tolentino No. 362 | August 2013

the widely documented and discussed success stories about the mortgage refinancing company in West Africa (Caisse Regionale de Refinancement Hypothecaire), Nigeria, Tanzania and Egypt[14] in developing mortgage liquidity facilities and the role they play in regularising the housing finance markets. Both the World Bank and AfDB has supported the establishment of such facilities in these African countries.

- **Digital Innovations in Housing Finance:** Results from our financial institutions survey provides key insights to the need for digital innovation in the housing finance value chain in order to enhance the missing link in the demand and supply for housing. Thus, digital platforms and an enabling environment will lay a solid foundation for possible investments and opportunities in Ethiopia's housing ecosystem. Evidence suggests that mobile platforms in Kenya, South Africa, Nigeria, and Zambia enable small-scale builders to link and sustain incremental housing. For instance, iBuild Global[15] connects demand and supply by creating a marketplace where buyers and sellers of building supplies and construction services may connect on a digital platform. In Kenya, it is utilized as an app to help households or small builders who want to commission or perform some type of building or home renovation work by providing a platform to post their requests for proposals. The platform creates a competitive atmosphere for both buyers and sellers, assisting service providers in raising funds to further build their operations. iBuild provides practitioners in the housing sector with a variety of modules from which to pick. This digital innovation and platform can be implemented in Ethiopia to establish an enabling environment for housing loans and support for SMEs in the housing sector. Moreover, the implications derived from the study on the area of digital innovations interventions are required on the housing finance market value chain in Ethiopia which includes:
- *Mobile lending:* Encouraging and facilitating Mobile lending for accessible loan opportunities for individuals with unstable income.
- *FinTech:* The use of FinTech in enabling, among others: faster mortgage loan processing, more accurate risk analysis, access to remote areas, reducing personal bias towards minority groups, cost reductions and operational efficiencies for lenders
    - Enables mortgage loans to be processed faster than traditional ones; reduces personal bias towards minority groups in the mortgage lending process; cost reductions and operational efficiencies for lenders
    - Reduces instances of fraud in mortgage applications
    - FinTech lenders can expand credit access for borrowers in non-metropolitan areas
    - FinTech can positively impact homeownership rates and mortgage supply elasticity
    - Mortgage brokers can realize many advantages from FinTech in serving their client base
- **Loans for Rental housing:** Key informant interviews with the Ministry of Urban Development and Infrastructure indicate that there is a growing demand from the Ethiopian government to promote access and provision of rental houses to meet the demand for housing in Ethiopia. In this regard, housing finance products and interventions can be capitalised by focusing on the activities of micro builders, owner-builders and backyard landlords with the targeted mortgage and non-mortgage housing. Instances from Zambia's uMaStandi and South Africa's iBuild Home Loans[16], offering housing finance products that leverage borrowers' existing assets. Moreover, uMaStandi[17] offers mortgage finance, training and mentorship to qualifying entrepreneurs who wish

[14] See KMRC https://kmrc.co.ke, CRRH http://crrhuemoa.org, NMRC https://nmrc.com.ng, TMRC https://www.tmrc.co.tz, and EMRC https://www.emrc-online.com
[15] See www.ibuild.global
[16] See www.ibuildhomeloans.com
[17] See www.umastandi.co.za

to build income-producing rental accommodation. And iBuild Home Loans offers mortgage finance to homeowners who wish to build rooms for rent in their backyard. Loans are disbursed in four construction phases: 1) Foundations 2) Walls 3) Roof, 4) Fixtures and Fittings and 5) Complete.

- **Incentivize Private Sector to Engage in Housing Ecosystem:** Incentivizing the private sector to engage in affordable housing delivery and taking measures to ease barriers to entry is needed in Ethiopia.

- **The Data for Housing Finance in Ethiopia:** Based on our analysis from survey exercises, we have learned that Housing specific data is a critical area for attention needed to attract private sector investment in the housing sector[18]. Data on housing finance uptake, access and usage by different actors is non-existent in Ethiopia. Ethiopia's data landscape which is expected to play a significant role as an enabling environment and support system is one of the key barriers in the housing finance ecosystem and value chain. This tends to create a fertile ground for market distortions specifically caused by an unregulated market actor i.e brokers (most of whom are not licensed) are emerging as integral players in the housing market. The Government of Ethiopia can make a smart move to take advantage of the Open Access initiative and initiate the operationalization and commencement of partnership with the Reall and 71point4, CAHF whom they launched the Data Agenda for Housing in Africa[19]. Allowing free information on housing finance: Requiring banks to disclose reasons for not advancing a loan or a mortgage to low-income groups and consider candidates' financial position holistically and not just their credit scores, aiming at fair lending practices.

- **Promotion and Strategy for 'Massive Small**': The finding for the low levels of formal access and usage to house finance in Ethiopia signals most middle-class households build their housing themselves, incrementally. The lack of housing finance in this regard implies that many homebuilding projects get delayed and remain unfinished when the homebuilder runs out of funds. In Ethiopia, further innovation is needed to offer finance to unconventional borrowers, who are seeking to build houses to provide affordable rental accommodations; enhance incremental housing through the provision of access to wholesale finance for micro-lenders, so that it helps them develop housing-specific products. Experience from Zambian Home Loans (ZHL)[20], a specialized mortgage institution owned by Sofala Capital, indicates that it offers an alternative to the traditional mortgage finance instrument: a building loan, which is transformed into a mortgage after the construction of the house has been finished. It focuses on building loans that are paid out in tranches according to the different building stages, i.e. foundations, walls, roof, fixtures and fittings and the complete house (AfDB, 2022). Once a stage has been finalised, a tranche payment is made for the next construction stage. This financing structure guarantees that the final product will be provided as per the agreement and the necessary quality standards, eventually resulting in physical collateral to put against the building loan.

The strategy requires interventions that provide legal and regulatory reforms and which strengthen institutions capacity and governance, while also building the capacity of SMEs to deliver the products and services that enhance the quality of life indicators, such as housing. A shift in housing process from large scale developer-driven interventions to the 'massive small' type development that is currently existing in Ethiopia's capital Addis Ababa can be taken as an approach specifically well-suited for scale-up to the national level if supported by policy, the regulatory environment and local-bylaws. The Government of Ethiopia can take an initiative to focus attention on issuing

[18] See this argument detailed here: http://housingfinanceafrica.org/documents/housing-finance-in-africa-building-the-investment-argument/ (Accessed 1 June 2022).
[19] As noted, this is outlined in the various country landscape reports published here: https://housingfinanceafrica.org/projects/a-housing-finance-dataagenda-for-africa/
[20]

supportive policies and building local capacity in order to support and enhance incremental, small-scale housing provision processes. In this regard, the Building Directive No. 2/2010, regarding temporary permits, issued in 2018 and later modified in 2020, which allows the increase of a plot's built-up area by 40% has played a crucial role in increasing the number of formally-built incremental housing in Addis Ababa.

Depending on the ease of implementation we have categorized the potential areas of interventions into short-, medium-, and long-term strategies. The strategies and their potential impact are represented in Figure 4-1 below.

Figure 4- 1: Recommended Interventions Categorized Into Short-, Medium- And Long-Term Strategies

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6. Annexes

Annex 1: List of key informants

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20	Tilahun Meshesha	Ethiopian Airlines Employees Saving and Credit Association	General Manager	
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22	Nema G/Kidane	Addis Ababa Housing Development and Management Office	Housing Development and Finance Supply Team Leader	
23	Abebe Aregay	Noah Real Estate	General Manager	
24	Woynishet Zeberga	National Bank of Ethiopia	Monetary and Financial Analysis Directorate Director	weyneshet-z@nbe.gov.et
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26		Financial Sector Deepening Ethiopia	Program Adviser	
27	Walelign Fitahei	Habitat for humanity Ethiopia	MEAL Manager	wfetahei@habitatethiopia.org
28	Biruk Adhane	Ethio-Telecom	Chief Mobile Money/Tele-Birr Officer	

Annex 2: Factors Affecting the Likelihood of Loan Applications

Variables	(1)	(2)	(3)	(4)
Income (high income as base)				
Low income	-1.455***	-1.236***	-1.174***	-1.676***
	(0.330)	(0.335)	(0.371)	(0.417)
Lower-middle income	-1.003***	-0.834**	-0.703**	-0.943**
	(0.324)	(0.325)	(0.340)	(0.372)
Upper-middle income	-0.741**	-0.643*	-0.658*	-0.684*
	(0.337)	(0.337)	(0.356)	(0.388)
Age		0.0453	0.0298	0.0209
		(0.0300)	(0.0495)	(0.0576)
Age^2		-0.000441	-0.000431	-0.000370
		(0.000331)	(0.000597)	(0.000703)
Sex (male=1)		0.323***	0.269**	0.0915
		(0.107)	(0.130)	(0.148)
Single		-0.284**	-0.237	-0.112
		(0.137)	(0.155)	(0.167)
Divorced		-0.115	-0.147	0.0143
		(0.252)	(0.321)	(0.350)
Widowed		0.0431	-0.0431	-0.548
		(0.265)	(0.397)	(0.606)
Household size		0.0982***	0.0710**	0.0789**
		(0.0286)	(0.0352)	(0.0388)
Education (tertiary or above as base)				
No formal education			-0.0568	-0.443
			(0.459)	(0.518)
Primary or below education			0.0260	-0.489*
			(0.221)	(0.275)
Secondary education			-0.0525	-0.162
			(0.152)	(0.166)
Industry type (finance and insurance as base)				
Manufacturing and construction			-0.337	-0.408
			(0.262)	(0.285)
SMEs			-0.572	-0.650
			(0.391)	(0.481)
Urban Agriculture			0.897	1.441**
			(0.584)	(0.726)
Transport, communication, and warehouse			-0.384	-0.183
			(0.283)	(0.299)
Trade, sale, and catering			-0.406*	-0.365
			(0.222)	(0.246)
Social service and public management			-0.360*	-0.232
			(0.214)	(0.235)
Financial literacy			0.0228	0.243
			(0.225)	(0.246)
Social capital			0.837***	0.381**
			(0.159)	(0.191)
City (Addis Ababa as base)				
Dire Dawa				0.334*
				(0.203)

Debre Birhan				1.521***
				(0.464)
Bahir Dar				0.995***
				(0.257)
Bishoftu				-1.185***
				(0.338)
Adama				1.005***
				(0.238)
Harar				0.738**
				(0.311)
Constant	1.242***	-0.506	0.116	0.346
	(0.317)	(0.749)	(1.100)	(1.259)
Observations	716	716	570	529

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Annex 3a: Factors Affecting the Likelihood of Getting Loan and Percentage of Loan Approved

Variables	Dependent variable	
	Probability of getting loan	Loan approved as %age of the amount applied for
	(1)	(4)
Income (high income as base)		
Low income	0.0769	7.118
	(0.137)	(6.299)
Lower-middle income	-0.00997	4.355
	(0.101)	(4.970)
Upper-middle income	0.0945	4.725
	(0.102)	(4.959)
Age	-0.0120	0.355
	(0.0224)	(1.076)
Age^2	0.000174	-0.00372
	(0.000264)	(0.0124)
Sex (male=1)	-0.0871	2.503
	(0.0548)	(2.723)
Marital status (married as a base)		
Single	-0.0492	1.023
	(0.0699)	(3.610)
Divorced	-0.182	-11.41
	(0.150)	(8.860)
Widowed	0.0198	2.199
	(0.170)	(6.716)
Household size	-0.000205	-1.151*
	(0.0137)	(0.658)
Education (tertiary or above as base)		
No formal education	-0.384	10.09
	(0.259)	(17.13)
Elementary or below education	-0.0460	-3.485
	(0.0936)	(4.318)
Secondary education	-0.0489	-2.613
	(0.0694)	(3.506)
Industry type (finance and insurance as base)		
Manufacturing and construction	-0.244**	-4.368
	(0.102)	(5.305)
SMEs	-0.148	0.307
	(0.182)	(8.402)
Urban Agriculture	-0.402***	2.064
	(0.154)	(8.771)
Transport, communication, and warehouse	0.0134	-12.51**
	(0.118)	(5.639)
Trade, sale, and catering	-0.161*	-6.886
	(0.0888)	(4.605)
Social service and public management	-0.0577	-7.769*
	(0.0834)	(4.059)
Financial literacy	0.190*	-2.198
	(0.105)	(5.187)
Social capital	0.0703	0.999

	(0.0785)	(4.097)
City (Addis Ababa as base)		
Dire Dawa	0.145*	12.14***
	(0.0838)	(4.103)
Debre Birhan	0.375***	1.431
	(0.124)	(6.632)
Bahir Dar	0.157*	7.808*
	(0.0846)	(4.376)
Bishoftu	-0.190	15.91
	(0.190)	(12.35)
Adama	0.0870	14.63***
	(0.105)	(5.499)
Hawassa	0.485***	10.88
	(0.123)	(7.500)
Harar	-0.267**	-6.214
	(0.106)	(6.478)
Constant	0.795	83.10***
	(0.497)	(24.68)
Observations	579	579

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Annex 3b: Factors Affecting the Likelihood and Amount of Future Housing Loan Applications

Variables	Dependent variable	
	Likelihood of future loan application	Amount of future loan application
	1	2
Income (high income as base)		
Low income	-0.743***	-1.965***
	(0.211)	(0.463)
Lower-middle income	-0.357**	-1.616***
	(0.141)	(0.564)
Upper-middle income	-0.0755	-0.452
	(0.188)	(0.724)
Age	-0.112***	0.238***
	(0.0347)	(0.0804)
Age^2	0.000983**	-0.00287***
	(0.000475)	(0.000982)
Sex (male=1)	0.0657	-0.0256
	(0.100)	(0.312)
Marital status (married as base)		
Single	-0.149	0.0789
	(0.127)	(0.238)
Divorced	-0.0226	-0.830***
	(0.421)	(0.315)
Widowed	-0.00146	-0.454
	(0.173)	(0.320)
Household size	0.0471**	-0.0218
	(0.0225)	(0.0240)
Education (tertiary or above as base)		
No formal education	-1.326***	
	(0.484)	
Elementary or below education	-0.471**	
	(0.219)	
Secondary education	-0.0840	
	(0.128)	
Industry type		
Manufacturing and construction	0.320*	-0.197
	(0.191)	(0.275)
SMEs	-0.255	-1.073
	(0.306)	(0.811)
Urban Agriculture	0.142	-0.271
	(0.596)	(1.244)
Transport, communication, and warehouse	-0.0612	0.112
	(0.140)	(0.272)
Trade, sale, and catering	-0.0508	-0.375
	(0.147)	(0.569)
Social service and public management	-0.0103	-0.591
	(0.142)	(0.739)
Other industry type	-	-0.443
		(0.333)
Financial literacy	0.209	0.973*

	(0.422)	(0.508)
Social capital	0.405	0.317
	(0.324)	(0.488)
City (Addis Ababa as base)	Yes	Yes
Constant	3.724***	0.543
	(0.789)	(1.374)
Observations	519	579

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1