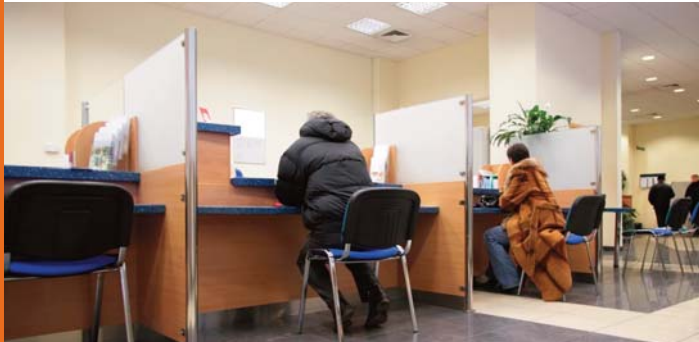


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Housing Microfinance (HMF) Business Models: Three Case Studies



Preface

This case study was commissioned by the FinMark Trust, with support from the Centre for Affordable Housing Finance in Africa, as a contribution towards the University of Cape Town's Housing Finance Course for Sub-Saharan Africa. It was in response to the observation that financial institutions are not providing sufficient housing microfinance (HMF) to satisfy the demand – or need – for low-income housing in Africa. It is the aim of this paper to further develop an understanding of the business models of HMF providers in Africa, as information about the factors that limit the provision of HMF loans should be useful to developmental institutions and governments.

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Three case studies were used to inform the report, with data collected through key informant interviews. Excel models of the financial institutions were built thereafter, calibrated to the latest financial information of that institution, and used to analyse the impact of identified constraining factors.

1. Executive Summary

While there is strong demand for HMF in Africa, there remains a significant portion of its population that lives in inadequate housing. Prahalad¹ argues that the demand for affordable housing can be met profitably. If this is so, why have financial institutions not supplied HMF to the extent or scale needed to satisfy this demand? The purpose of this report is to investigate the business models of selected African financial institutions in order to identify constraints that might limit the provision of HMF.

Across Africa, practitioners are grappling with the challenge of creating an enabled housing finance environment. While these challenges may seem insurmountable, there is a growing track record of novel solutions and initiatives, pioneered by policy makers, financiers, developers and households themselves, suggesting that there are new opportunities for making the housing finance sector work for the poor in Africa. This case study is part of a broader series that CAHF has commissioned in order to support professional development and inform a broader research and dialogue process. The case studies vary, addressing themes as diverse as housing microfinance, mortgage liquidity facilities, cement block-banking, home loan guarantees for the informally employed, and infrastructure financing, highlighting experiences from countries across the continent. We hope this series contributes to more precise and successful endeavours that realise the opportunities in this market.

The Centre for Affordable Housing Finance in Africa (CAHF) is a not-for-profit company with a vision for an enabled affordable housing finance system in countries throughout Africa, where governments, business, and advocates work together to provide a wide range of housing options accessible to all. CAHF's mission is to make Africa's housing finance markets work, with special attention on access to housing finance for the poor. We pursue this mission through the dissemination of research and market intelligence, supporting cross-sector collaborations and a market-based approach. The overall goal of our work is to see an increase of investment in affordable housing and housing finance throughout Africa: more players and better products, with a specific focus on the poor.

¹ Prahalad, C.K. 2008. The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits. Pearson Education.

Using a case study approach, three cases were reviewed: Real People, Capitec Bank, and Select Africa. The first company, Real People, is a South African-based HMF provider that finances the purchase of building supplies at store. A smaller portion of their business lends into other African markets. The second, Capitec, is a South African retail bank that supplies HMF not as a separate product but as an unsecured loan of longer maturity that their clients apply towards housing. And third, Select Africa, is an African microlender that supplies HMF for incremental housing and home improvements, and provides construction technical assistance (CTA) as part of the loan product. Data was gathered by analysing the latest financial reports of Real People and Capitec (Select Africa did not make their financial information available) and by conducting semi-structured interviews with senior company representatives. The semi-structured interviews were organised around the business processes of the financial institutions, including loan origination, processing and approval, monitoring and payments, and capital raising. Financial models of the balance sheets and income statements of Real People and Capitec were built in Excel. The models were used to analyse the impact of identified constraints on the interest rates charged by the companies, given their target return on equity (ROE) percentages.

The research found that all three companies had target ROEs that played an important role in determining the interest rates charged. This results in ROE, and factors that influence ROE, being very important in the supply of HMF. Any factor that increases costs or reduces interest income leads to higher interest rates charged in order to attain the target ROE. Higher interest rates on HMF loans, assuming that affordability remains unchanged, leads to fewer clients that can afford those loans and, thus, fewer HMF loans granted. Bank regulations – notably the Basel Accords – require banks to hold more capital relative to non-banks, leading to higher interest rates to attain the target ROE.

Factors that can lead to higher interest rates charged include:

- A higher expected ROE from funders;
- A higher cost of funding;
- A higher operational cost structure;
- A higher equity capital percentage of total capital;
- A higher level of cash held;
- A higher bad debt charge that can result from:
 - Uncertainty created by low quality credit reports;
 - Uncertainty created by a debt counselling process that impact all lenders indiscriminately.

All three companies only lend to employed individuals, excluding individuals outside formal employment (entrepreneurs, part-time workers, so on). Access to capital (quantity and at a low interest cost) was a limiting factor for two of the companies, as their capacity to make HMF loans was limited by the amount of capital they had available. Their debt capital was at a high cost and resulted in less HMF being available working through the target ROE mechanism explained above. The one bank in the study did not highlight capital constraints as a limiting factor and benefitted from the quantity and low cost of deposit funding. Scale of operations emerged as a significant factor limiting HMF, as a financial institution needs a very large loan portfolio before it can operate cost effectively and achieve a reasonable rate of return. Early access to the income of clients emerged as a constraining factor in that the credit risk related to a loan was significantly higher if the financial institution could not access the client's income for repayments as soon as it was available. This additional credit risk translates into higher costs and less HMF.

There are three policy recommendations that follow from the research. First, weak regulatory, legal and lending support (such as quality credit reports) infrastructure in a country leads to higher costs for financial institutions, limiting HMF. Second, scale is needed to succeed as a HMF provider – Capitec achieved this through consolidation, which is an option for other providers. Third, banks have significant advantages in terms of capital availability at low costs and access to a diversified income stream, with the implication that HMF providers should strategically consider obtaining banking licences once they have reached scale.

2. Introduction

The purpose of this report is to identify the factors that limit the provision of HMF from the perspective of loan suppliers. A case study approach is followed. The report will be structured as follows:

Section two will define HMF and provide an overview of HMF in Africa (and South Africa). This will be based on a review of the literature, providing the context for this report.

Section three will introduce ROE as a financial target of lending institutions that impacts on the pricing of HMF loans provided.

Section four is the first case study, Real People.

Section five is next case, Capitec.

Section six is the final case, Select Africa.

Section seven explains the Excel models that were built and used to analyse the impact of the limiting factors.

Section eight concludes the report, with a discussion of the findings.

3. Overview of HMF in Africa

The purpose of this section is to provide context to the investigation. First, the concept of HMF will be introduced. Second, the state of HMF in Africa will be discussed. Finally, there will be a discussion on state of HMF in South Africa.

i The HMF Product

HMF is a subset of microfinance designed to meet the housing needs and preferences of low-income families, especially those with little or no access to the banking sector and formal mortgage loans. HMF works for households who build, improve or expand their dwellings, often incrementally. It includes a range of service offerings such as loans, savings and insurance products that support informal shelter improvements and works where mortgages are unavailable.

HMF operators fall into three tiers. The first tier consists of commercial banks and microfinance banks. The second tier encompasses non-banking microfinance institutions that offer credit only, as well as HMFIs and cooperatives. The third tier is made up of unregulated entities such as informal money lenders, community-based savings group and mutual entities.

HMF is a demand-driven, affordable product for poor and low income households which recognises housing as a process in which low income households should be decision makers and drivers. The product—albeit not a consumer loan, mortgage loan, productive loan or subsidized housing — achieves the double bottom-line of profitability and social performance. Typical HMF product features include a shorter term of up to three years, incremental disbursements based on performance, frequent repayments and secure property tenure. Other features may include social guarantees or alternative collateral, smaller loan amounts than traditional mortgages and high interest rates. These loans are granted to individuals and groups for the purpose of home improvement or incremental building.

ii HMF in Africa

The housing market in Africa has grown remarkably over the past decade and, concomitantly, so has the scale and diversity of housing finance provision. The Centre for Affordable Housing Finance in Africa (CAHF) reports that housing demand and opportunities — that are increasingly being recognised and taken advantage of — have been created in economic hubs such as Lagos and Nairobi, and in commodity-oriented regions such as Lubumbashi, Niamey and Luanda. Economic growth, population growth and rapid urbanization are the prime drivers of Africa's emerging housing market.

According to Kihato², HMF lending operations in Africa obtain capital from several sources. International development institutions, with the objective of growing the scale of housing development and to address the housing backlog observed in Africa, have focused on enhancing the lending activities of NGOs, as well as savings and credit cooperative organisations. Other development institutions focus on general microfinance by assuming first loss risk positions, sharing the risk with commercial operators. The contribution of this last group to HMF has principally been through broad microfinancing. Throughout the housing delivery chain, there are institutions that provide CTA to borrowers.

² Kihato, M. 2013. State of Housing Microfinance in Africa. Report commissioned by the Centre for Affordable Housing Finance in Africa.

Kihato also highlights the considerable interest and competition for HMF market share by first tier institutions, partly due to an anticipated viability of HMF products as a result of Africa's growing middle class. Products on offer are – as reported in the paper – largely home improvement loans, as opposed to loans targeted at the incremental construction of new homes. Some of the products straddle the divide between HMF and conventional mortgages. Second tier institutions offer home improvement, housing construction and incremental building loans; occasionally with phased disbursements as needed to fit progressive construction requirements.

An example of an HMF provider is HfH, which is involved in financing homes through micro-mortgages in several African countries and providing housing for vulnerable groups, has changed its focus to catalysing greater delivery at the affordable segment of the housing market through HMF. The MicroBuild Fund, established by HfH, is a global fund for the delivery of debt capital and fund capacity building to microfinance institutions.

New Urban Finance Facility for Africa is a US\$100 million facility, currently in formation, with the intent of providing investment through local banks and microfinance institutions for affordable housing and basic services, in African cities. Rooftops Canada, the international development programme of Canada's cooperative and social housing sector, works with Canadian and international partners to improve housing conditions, develop sustainable communities and to advance a shared vision of equitable global development.

With respect to capacity building and technical support, Kihato sees housing support services as an integral component of HMF. Support includes construction design, budget verification, guidance on suitable purchases, permits and legal requirements, construction oversight and verification, technical inspection and supervision, client and artisans technical capacity building, and bulk land purchase negotiation. Kihato discusses assistance targeted at HMF business processes offered by organisations such as PlaNet Finance, which has provided organisational guidance to the Kuyasa Fund in South Africa to help loan expansion.

Kihato also reviews CTA aimed at the construction process such as HfH's activities in Malawi, Ghana, Uganda, and planned for Zambia and Angola. He observes that one major challenge facing the delivery of CTA is that the demand for such assistance is higher than the capacity of HfH, and recommends that CTA services reach clients before construction starts, to reduce the likelihood of subpar overall construction. Capacity challenges that should be the focus areas of technical assistance encompass client affordability, market knowledge and segmentation, client retention, skills in HMF provision and client understanding of microfinance in general. Others include institutional capacity in management information systems and human resource, donor/funder understanding of HMF, microfinance institutional understanding of HMF (for instance in alternative forms of security aside from land titles, client over-indebtedness, as well as savings capacity of clients).

Key issues that warrant attention from the policy perspective include the creation of appropriate systems of land administration, management and tenure security that facilitate HMF, and policy reforms to allow for, and encourage, incremental build. Other areas mentioned in the study are the removal of threats to tenure security such as evictions, the provision of incremental tenure and step-by-step acquisition of land title, as well as housing infrastructure. Kihato mentions that efforts in South Africa to amend policy for the national housing subsidy be focused on providing plots of land serviced with the requisite infrastructure.

On the way forward, Kihato suggests that, as a launching pad, general microfinance organisations provide the best platform for HMF, represent the most likely entrants into HMF going forward, and will continue to attract the immediate attention of funders. Their familiarity with clientele, knowledge of microfinance lending methodologies and already existing network of branches creates a platform for the HMF market. For commercial lenders, the study highlights the importance for their experiences to be monitored to ascertain key factors in their success, and potential pitfalls that may cause problems for HMF lending. Support of – and investment in – NGOs is a way of reaching poorer borrowers and scaling up HMF, support for CTA providers – perhaps through partnerships – and strategies for affordable building technologies and materials are also recommended. Another policy recommendation made was to develop HMF in Africa through, among other possibilities, the leveraging of pensions for HMF, tax relief, affordable infrastructure and liquidity facilities.

iii HMF in South Africa

A paper by Gardner³ analyses the state of HMF in South Africa, including an in-depth investigation of relevant actors. The study indicates the fragmentation of this market and, because of this and the lack of adequate tracking mechanisms of capital utilisation in the market, is forced to use various estimates and approximations. Funding disbursement strategies become, because of this, a crucial component of HMF development. The study estimates housing related loans to be between 10% and 33% of the total microloans disbursed.

³ Gardner, D. 2008. Housing microfinance in South Africa: Challenges and prospects. Report for FinMark Trust and the HIVOS Foundation.

The regulatory environment changed with the introduction of National Credit Act (NCA). This Act was promulgated as means to protect borrowers from reckless lenders and the harmful effects that result from this for the rest of the economy. While individuals earning below R3 500 per month are eligible for government housing, bank mortgages offered only to individuals earning R11 500 per month on average, which creates a “gap market”, estimated at between 2 and 3 million households. This ‘market gap’ provides potential for the HMF sector to improve its size and significance.

In South Africa, according to Kihato⁴, the existence of active government development funding institutions, which provide wholesale finance such as the Rural Housing Loan Fund (RHLF), and the National Housing Finance Corporation (NHFC), presents a context unique from the rest of the African continent. The RHLF and NHFC provide capital for on-lending to mainly specialist housing microlenders, such as Lendcor, Real People and the Kuyasa Fund. The RHLF’s lending has increased by almost 75 percent between 2011 and 2012. Kihato mentions land access as one of the important impediments to HMF in South Africa and recommends a review of institutional infrastructure and government policies and focused data gathering to help research and strategy in the housing market in South Africa.

There is a real demand for HMF in South Africa, and Africa. The literature review above suggests that poor legal and institutional infrastructure, as well as poor access to capital can inhibit HMF, has resulted in the demand not being adequately met.

iv Return on Equity as the Objective Function of Finance Providers

Return on equity (ROE) is the primary measure of performance used by financial institutions, even though most African financial institutions target a mix of objectives, including ROE and social impact, return to shareholders remains a very important performance metric and, in all three cases explored below, target ROE was used in loan pricing decisions.

Financial institutions will price the interest rate of their loans at a high enough level to ensure that the target ROE will be met after all expenses, including cost of finance, impairments and operating expenses. The implication of this is that loan interest rates charged might be so high as to exclude individuals who need HMF but cannot afford it. The result of this is a relationship between target ROE and access to HMF: an individual will only be able to access HMF if the expected ROE on his/her loan exceeds the target ROE of the financial institution approached.

Below is an example to illustrate the calculation of return on assets (ROA) and ROE. The relationship between ROA, ROE and the capital structure (debt financing relative to equity financing) of the financial institution is highlighted. Equity capital and the ratio between equity capital and debt capital emerged as a constraining factor during the investigation.

Table 1: ROE calculation example

Profit calculation		
Interest earned	(R950 x 15%) for loans + (R50 x 0%) for cash	R143
Less interest paid	R900 x 10% for debt capital	(R90)
Profit		R53

Explanation : ROA is equal to 53/1000 (5.3%), which is a relatively low return if compared to the current interest rates paid on fixed deposits in South Africa. ROE is equal to 53/(equity capital used to generate the profit) (53/100, or 53%). The ratio between ROA and ROE is equal to 10. It was possible to derive the factor of 10 by calculating the gearing level which is the multiple of equity capital and debt capital to equity capital. Thus,

$$ROE = ROA \times \text{gearing} = ROA \times \text{total assets} / \text{equity}.$$

The focus on ROE in this section serves to illustrate that HMF loans will not be made to individuals for whom the expected ROE (earned by the financial institution on that loan) does not at least meet the target ROE of the financial institution. This section also shows that the use of equity capital by a financial institution can be regarded as a cost that reduces ROE, all else equal.

⁴ Kihato, M. 2013. State of housing microfinance in Africa. Report commissioned by the Centre for Affordable Housing Finance in Africa.

4. Case Study One: Real People

i Background

Real People was incorporated in 2001 and started out as a traditional microlender. In 2013 the group made the strategic decision to exit general, non-specific lending and to focus on responsible lending, “helping customers fund specific goals, such as paying for education and improving their homes, while moving away from general, non-specific lending.” Real People’s branch infrastructure was sold off as a result of the new focus. In South Africa, the bulk of Real People’s lending is distributed at point of sale at the premises of building material suppliers, where customers use the loans from Real People to fund home improvement purchases. In South Africa, loans are only provided to employed customers. In Kenya, Tanzania and Uganda, Real People provides business finance to individual entrepreneurs.

Real People’s financial highlights for 2014	
Total loans	R3 403 521 000 (89% South African and 11% East African)
Cash	R315 536 000 (7% of total assets)
Total assets	R4 559 478 000
Equity financing	R718 016 000 (16% of total assets)
Interest bearing debt financing	R3 628 845 000 (no deposit funding)
Total loans	R203 561 000
Cash	R100 057 000
Total assets	R303 962 000

In 2013 the responsible lending division contributed 44% of the “core continuing profit before tax”, 56% of the contribution came from the portfolio recovery solutions business, which comprises the acquisition and collection of non-performing debt as well as the provision of outsourced collections services.

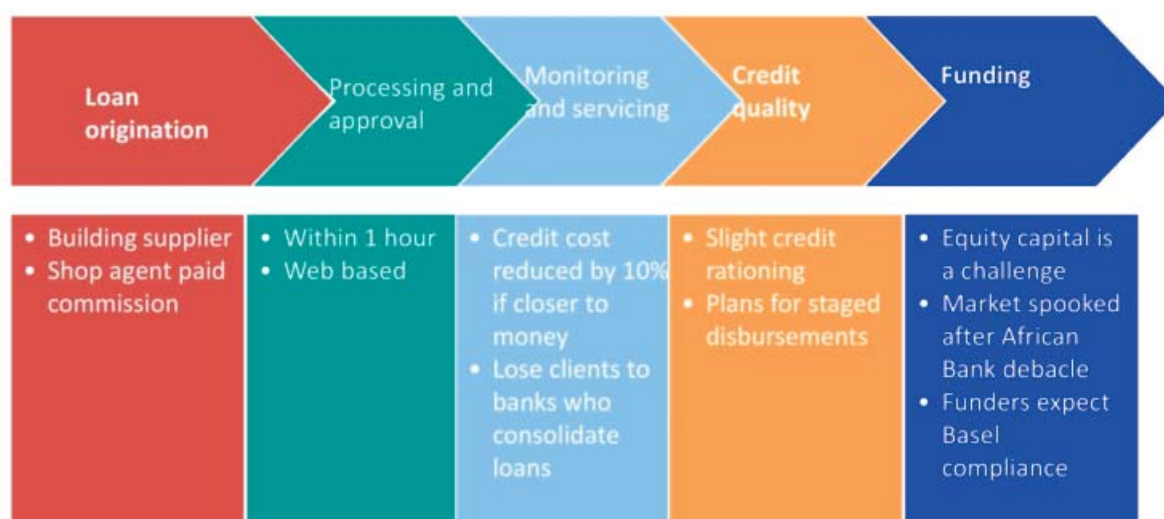
The debt financing of Real People above includes bonds issued by Real People itself and bonds issued by securitisation special purpose vehicles (SPVs).

ii Interview

The interview was semi-structured, to reveal unknown issues that block the supply of credit to HMF. The interviews used a process-based approach, allowing for any constraints to emerge naturally during the discussion of the different business processes. Business processes include loan origination, credit scoring, approvals, monitoring and capital raising.

The Real People interview was with their CEO of Sustainable Finance. The process map for the Real People interview, with notes, is presented below.

Figure 1: Process map for Real People including summary notes of main points



Loan origination – Real People partners with over 1500 building supply stores. In each store, an employee of the building supplier, trained by Real People, acts as a credit champion, encouraging customers to obtain loans from Real People for their building supplies, and receiving commission in return.

Processing and approval – Clients apply at the building supply store. The credit champion inputs the information, from required documents, into a system. Credit approval is performed electronically, with automatic credit report and affordability checks. Real People aim for a one hour turnaround time.

Monitoring and servicing of loans – Real People collect monthly repayments via debit order from the clients' bank accounts. These debit orders are often not honoured when a client gets into financial difficulty. Real People estimates that not having access to a client's income when it arrives in the client bank account increases their cost of funding (through higher impairments) by 10%. Clients that are successfully servicing their Real People debt are often taken over by banks. The banks consolidate the client's loans, which is detrimental to Real People's income.

Credit quality – The non-performing loans percentage of Real People is high at 38%. However, Real People would originate more loans if they had more capital – clients who can afford to repay Real People loans and who pass the Real People credit checks are not given loans in favour of the better clients (in terms of credit risk) because of a lack of capacity.

Funding – Real People obtain debt capital by both issuing bonds as a company and through securitization. They are of the opinion that they will be able to raise the necessary debt capital if they have the right amount of equity capital available, resulting in the availability of equity capital being a constraint. Further, Real People, though not a bank, have adopted the Basel 2 methodology to measure credit risk and the amount of capital that is required to cover credit risk.

iii Discussion

Real People charges more for their HMF than Capitec, the subject of the second case study, does. This makes their loans more expensive, resulting in fewer people will be able to afford their loans. At the same time, given more capital, Real People believes that they can increase their lending. Thus, even at current pricing levels, there are potential clients who should be able to obtain HMF loans but cannot.

Why do they charge more? Real People do not have access to deposit funding and have an average cost of funding almost double that of Capitec. A reason for the lower interest rate paid on deposits is that deposits are available on demand. Clients with good credit records, who can afford their loans, will tend to be partly price sensitive; trying to obtain the lowest interest rate possible. These customers often migrate to other banks that consolidate their loans at lower rates than those offered by Real People. Riskier clients, who cannot obtain credit anywhere else, stay behind. Real People's loan loss ratio of 38% is almost four times more than that of Capitec.

Real People's operational expense ratio is also slightly higher than that of Capitec. This is predominantly an issue of scale – the business needs to reach a certain scale of operation, in terms of the number of loans, to optimally cover its fixed costs. Capitec, with its diversified income stream and much larger size, has the scale advantage.

In summary, Real People advances less HMF loans than it can due to:

- Limited available equity capital;
- Effective HMF demand is limited because of the high interest rate charged due to:
 - Higher cost of funding;
 - Higher impairments;
 - Higher operational costs.

Not having deposit funding is advantageous because Real People require less cash on balance sheet than Capitec, not needing to satisfy possible withdrawals of deposits and bank regulatory requirements.

A major advantage of Real People is that it partly controls what the loans can be spent on: loans can only be used to purchase building supplies. This is also a relatively low cost control mechanism compared to Select Africa, who sends out individuals to physically inspect the homes constructed or bought by customers.

5. Case Study Two: Capitec

i Background

Capitec is a retail bank, listed in 2002, which aims to be “a unique retail bank that provides money management solutions for individuals”. Capitec has roots in the microlending industry and reached scale by the amalgamation of numerous microlenders. Over the years, the interest rates charged by Capitec have lowered as the bank reached scale and diversified income away from microlending to transactional banking (43% of income in 2014 was from transactional banking). Capitec only lends to the employed market and does business in South Africa utilising a branch infrastructure (629 branches in 2014).

Financial highlights from 2014	
Total loans	R30 052 830 000 (25% is estimated to be HMF loans)
Cash	R9 665 611 000 (21% of total assets)
Total assets	R46 190 968 000
Equity financing	R9 982 111 000 (22% of total assets)
Interest bearing debt financing	R14 616 509 000 (41% of total interest bearing debt)
Impairments	R35 449 679 000
Profit for the year	R3 976 170 000 (13% of total loans above)
Total assets	R2 037 554 000 (ROE of 20% for the year)

Capitec's operational costs are low compared to other banks, which is partly explained due to Capitec's use of a modern, Windows based IT system compared to the outdated systems used by large banks. Capitec's cost to income ratio is 32%, while the large banks are usually between 50% and 60%. Capitec's operational cost ratio is slightly lower than that of Real People, even with its extensive branch infrastructure. Capitec issues bonds to raise some of its debt capital but does not make use of securitisation to raise capital.

ii Interview

As with Real People, the same semi-structured method was used for Capitec. The Capitec interview was with its Head of Credit. The process map for the Capitec interview, with notes, is presented below.

Figure 2: Process map for Capitec including summary notes of main points



Loan origination – Capitec originates loans only in its branches. The purpose of the loan is not important in the credit decision; the decision to issue the loan is based on affordability, while what the loan is used for is left to the discretion of the client.

Processing and approval – Credit approval is centralised and decisions are made by a computerised information system. Credit reports and the client's repayment history are automatically acquired; affordability ratios are calculated (the affordability decision is based on the lower of Capitec's affordability ratios or the client's calculation on the application form). The status of the client's employer forms part of the credit approval decision. Capitec charges more because credit reports may be out of date, resulting in the client's affordability calculations may not be accurate.

Monitoring and servicing of loans – Capitec only disburses loans to Capitec accounts. From there, clients are able to do what they want with the money. In 2014, 52% of Capitec loan clients receive their income into Capitec accounts. In comparison to Real People, Capitec is much closer to the loan repayment source.

Credit quality – Capitec charges less for loans than their competitors. This enables them to ration credit and only take the clients with the best credit records who are shopping for the lowest interest rate. The quality of Capitec's book is reflected in their relatively low level of impairments. Thus, lower interest income leads to lower impairments when combined with a rigorous credit vetting process. Capitec has found that a number of their clients enter debt counselling due to loans that they have taken up in addition to the loans they have from Capitec. Debt counselling is a legal position in which the client is protected from creditors and usually stops paying interest. Often it is not the Capitec loan that takes the client over the edge but Capitec has to charge a premium to account for this cost.

Funding – Capitec has a mix of funding. Equity funding is relatively high compared to Real People and can be explained by the bank regulations Capitec operate under. Capitec does not foresee the need to raise equity capital in the foreseeable future and has been paying dividends at a stable pay-out ratio for a number of years. Debt funding is raised first of all by the taking of small deposits from retail customers. Capitec has a policy of not taking wholesale demand deposits. This partially protects them against liquidity risk (the risk that depositors suddenly all try and withdraw their deposits at the same time), as retail depositors almost never start a bank run. Wholesale funding is raised by issuing bonds to the market. Capitec's bonds are always oversubscribed – their good reputation is reflected in a relative low interest rate paid on three year bonds of Jibar + 1.5% compared to Jibar + 4.5% that Real People paid on two year bonds, both in 2013.

iii Discussion

Capitec prices their loans to achieve a target ROE of at least 20%, taking into consideration their cost of funding, the probability of default on the loan and their operational expenses. The ROE target is 5% lower than the target of Real People and probably reflects Capitec's larger size and lower risk profile due to its diversified income stream, higher capital, more stringent regulatory supervision and cash levels. The lower ROE target allows Capitec to charge a lower interest rate. Because of the lower interest rates more customers can potentially afford a Capitec loan. However, under current market conditions, Capitec is rationing credit and only taking the highest quality clients.

Capitec's cost of funding is also substantially lower than that of Real People, as Capitec can take deposits and issue bonds at a lower interest rate than Real People. And, also, because Capitec's cost-to-income ratio is slightly lower than that of Real People. Possible reasons are scale, a better IT infrastructure, diversified income stream and no controls over loan disbursement. These lower costs allow Capitec to charge lower interest rates to their customers.

The low cost advantage of deposit funding is partly negated by the additional cash that Capitec needs to keep to pay possible withdrawals from depositors. As cash generates no income this results in higher interest rates charged.

In summary, Capitec advances less HMF loans than it can due to:

- No controls over disbursement of loans (clients can spend their HMF loan on something else);
- Limited demand because of the high interest rate charged emanating from:
 - Uncertainty created by debt counselling;
 - Outdated credit reports.

6. Case Study Three: Select Africa

i Background

Select Africa is a retail financial services group that has been in existence since 1999 focusing primarily on the extension of unsecured retail, incremental housing microfinance, education loans and consumer loans. Select Africa only lends to individuals employed with organizations with which they have payroll deduction agreements – usually government and semi-government. Select's focus is on servicing the unbanked or entry level retail credit market, which is often overlooked by the formal banking sector as the clients are deemed too small, risky and unprofitable. Select Africa currently operates in four countries: Kenya, Malawi, Swaziland and Lesotho.

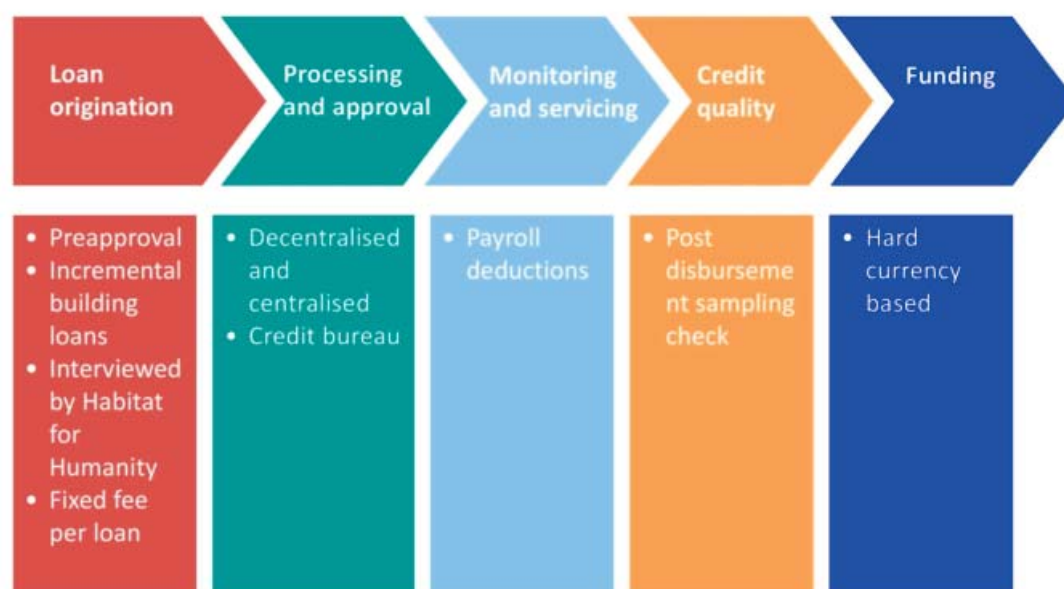
Select Africa, even with the shift of their focus to responsible finance, comes from a microfinance background; their product portfolio still contains traditional microfinance products such as 1-month loans.

The financial statements of Select Africa were not available for this research.

ii Interview

As with Real People and Capitec, the same semi-structured method was used for Select Africa. The Select Africa interview was with the Head of Sales and current CEO of Select Africa in Malawi. Thus, the interview focused on Malawi. The process map for the Select Africa interview, with notes, is presented below.

Figure 3: Process map for Select Africa including summary notes of main points



Loan origination – Select Africa originates loans within branches. Clients come to the branch and apply for a loan of a certain maturity and size. Clients also explain what they aim to do with the money to a HfH employee. The employee advises the client on the building plan – for a fee – and agrees to the loan (this is the only step in the credit approval process). HfH is paid a fee for this service and the fee is recouped from the client via a charge on the loan.

Processing and approval – Credit approval is at the branch level (basic affordability) and centralised (credit report, and final affordability and fraud checks). An important difference, when compared to Capitec and Real People, is that the main product offered is an incremental building product. The credit implication is that the whole loan amount is not disbursed at once but rather piecemeal over time as the house is confirmed as built, which reduces credit risk.

Monitoring and servicing of loans – Loans are repaid through a payroll deduction. This reduces cash risk, as well as repayment risk, because of Select Africa's privileged access to the client's cash flow.

Credit quality – Select Africa charges an interest rate that is on par with their competitors. What distinguishes their offering is the "high touch" control over disbursements. Their clients have to submit building plans, receive construction advice, loan money is disbursed piecemeal as building progresses and a sample of building sites are visited. This process is expensive but results in low impairments.

Funding – Developmental institutions fund Select Africa. Select Africa's strategic focus on sustainable finance was in response to pressure from their funders. Select Africa raises both debt and equity funding. The debt funding is usually in hard currency and exposes Select Africa to serious currency risk that is currently too expensive to hedge. They charge higher interest rates to clients to compensate for this.

iii Discussion

Less information, compared to the other two case studies, was available with Select Africa. A glaring similarity with the other two cases is that Select Africa also only advances loans to employed individuals. This implies that the significant unemployed or temporary employed portions of African society are excluded from HMF loans from these three providers. Select Africa adds a lot of value to clients in the building process, which improves the credit quality of their loans. However, this process is subsidised because, according to HfH, the fee they receive for performing these services on behalf of Select Africa is not enough to defray their costs. It is of course possible that the levels of subsidisation will become insignificant if the scale of the operations grows enough.

In summary, Select Africa advances less HMF loans than it can due to:

- An underdeveloped country credit infrastructure in terms of legal surety, and access to security and low quality credit reports;
- Limited demand because of the high interest rate charged, partly attributed to currency exposure due to debt funding in hard currency;
- Select Africa is limited by having few branches.

A major advantage of Select Africa is their ability to deduct loan payments from payroll, but this limits them to customers employed with certain employers.

7. Excel Models

The financial statements of Real People and Capitec were used to build Excel models with balance sheets, income statements and ROE as outputs. First, the models to the actual results of the two cases (averaged over their final two years of operations) were calibrated. Thereafter, the models could be used to calculate the impact that changing one variable has on the institution's ROE, keeping everything else.

The first limiting variable that we explored using the models was that of scale. Financial institutions have large fixed costs that they have to recoup by earning an interest margin on HMF loans. Examples of fixed costs include physical branch infrastructure costs, costs of IT systems, management costs, so on. An institution that is not operating at a large enough scale must recoup its fixed costs over a smaller pool of loans and must charge more than a larger institution. Given conservative costs estimates, we calculated that a moderately leveraged institution (targeting 25% ROE) would require 8 816 clients and a loan portfolio of R239.2 million to reach scale, other things equal. With a more aggressive leverage assumption of 10, a total of 7 116 clients and a loan portfolio of R39.2 million is required for scale.

All three cases showed the achievement of a target ROE (20 – 25% for Capitec and 25 – 30% for Real People) to play a very important role in their pricing decisions. We thus explored the sensitivity of ROE for the following factors using the models:

- Cost of funding (Capitec's funding was at a much lower interest rate than that of Real People);
- Impairment level (Capitec had a much lower impairment level compared to Real people);
- Operational costs and infrastructure (the cheaper the institution is to run the lower the interests rate that can be charged to achieve the target ROE);
- The gearing level (the ratio between total funding – equity funding and debt funding – and equity funding);
- The amount of cash held.

What the models showed us is that the interest rates charged by the financial institutions, given a specific target ROE, are very sensitive to the factors. Given a higher HMF loan interest rate, fewer customers will be able to afford it. The following table summarises the constraints to HMF that emerge:

The following table summarises the constraints to HMF that emerge:

Table 2: Factors (that emerge from the models) that limit HMF lending via increasing the interest rate charged

Factor keeping all else equal	Impact on interest rate charged:
Higher ROE required by funders	Higher rate charged
Higher cost of funding (debt)	Higher rate charged
Higher bad debt charges	Higher rate charged
Higher equity capital % required	Higher rate charged
More cash kept	Higher interest rate charged
Higher operational cost structure	Higher interest rate charged
More bad debts:	Higher interest rate charged
Uncertainty re. credit record	
Uncertainty re. debt counselling	

The final use we put the models to was to reconcile the average ROE of Real People over the past two years to the average ROE of Capitec over the past two years. This serves to illustrate and explain the impact of the factors highlighted above.

Table 3: Reconciliation between the ROE of Real People and the ROE of Capitec that illustrates the impact of the different factors

Real People ROE	%	11.1%
Adjusted for differences in:		
cost of funds	1.9%	
loan rates	-7.4%	
default rates	15.1%	
cost structures	2.2%	
liquidity	-4.0%	
capital ratio	1.1%	
Sum of adjustments:	9.1%	
Capitec ROE		20.2%

8. Conclusion

The purpose of this report was to investigate why the provision of HMF in Africa is not happening at the scale necessary to satisfy the demand for housing. For the sustainable delivery of HMF this demand should be met by commercial HMF institutions without subsidies. The constraints on HMF delivery from the perspective of the financial institutions were investigated through three case studies. The analysis of financial statements and semi-structured interviews with key informants informed these findings. The semi-structured interviews were organised around the business processes of the financial institutions. Constraints that emerged are:

Clientele: All three case study institutions only lend to employed individuals. Given that a significant portion of lower income earners in Africa are not formally employed this is a significant limitation on getting HMF to those in need of housing. Increasing the availability of HMF to include those individuals that are not formally employed is, at least partially, related to the availability of small business finance.

Scale: The three cases had very different models of HMF origination. Capitec has the simplest model, where a longer maturity loan is made available to the client for housing and no check is initially done to make sure that the money is actually applied to housing. This makes the credit process cheaper, although Capitec needs to maintain a branch infrastructure to support these loans. Real People's process is more complicated in that they limit the application of their loans to the purchase of building supplies. This resource intensive process makes HMF provision for Real People more expensive than for Capitec (costs include training in-store credit champions, paying commissions and administering the agreements with building supply vendors). Real People has the advantage of having a process that is branch independent. Select Africa's "high touch" process is the most complicated and expensive way – of the three cases – to originate HMF loans. It has the advantage of tying the customer to the house, limiting impairments. That HFH is not making profit from the activity is an indication that this model is best implemented when it is subsidised.

In terms of scale the models showed that financial institutions have to reach a significant scale to recover their fixed costs and achieve a realistic ROE. By implication the provision of HMF by a large number of small operators without significant scale will be a constraint on the provision of HMF in Africa.

Access to capital: Access to capital – especially equity capital – emerged as a constraint in two of the cases. The institutions could only lend out HMF to the extent that they had the capital available. The availability of capital was not an immediate constraint for the bank case, Capitec. The availability of deposit funding gave Capitec the necessary capital and at a significantly cheaper interest rate; an important advantage that results in lower interest rates charged on HMF and more HMF loans. The implication for HMF in Africa is that, after the achievement of scale, institutions should investigate becoming deposit-taking banks. Though this will bring more regulatory requirements and the need for branch infrastructure.

Interaction of access to capital & foreign exchange risks: In the case of Select Africa, foreign debt funding was relied upon due to the underdeveloped state of local capital markets. The foreign funding was at a low interest rate but payable in hard currency. This exposed Select Africa to significant foreign exchange risk that, due to underdeveloped local capital markets, could not be hedged cost effectively. This leads to higher interest rates on HMF loans, limiting their supply.

Regulations: Regulations create costs for the three institutions and, all else equal, increase the interest rates that they charge on loans, limiting affordability and the availability of HMF. Bank regulations create costs for banks in that more capital and liquidity is required than for non-banks. Banks can overcome the disadvantage of these costs by diversifying their income to include transactional income and achieving greater scale. It emerged in the case of Real People, a non-bank, the Basel 2 methodology is used to calculate the capital necessary for credit risk. Shelter Afrique, another African non-bank, has also adopted the Basel 2 methodology. By implication banks and non-banks are converging in terms of the capital that must be held for credit risk and we expect to see in future that Real People and Capitec will have almost equal capital ratios. Other regulatory costs that emerged included the unintended costs of debt counselling in South Africa that led to Capitec charging slightly higher interest rates.

First access to the income of clients: In all three cases, the financial institutions indicated that cheaper HMF loans are possible if they have better access to the income of clients. In the case of Select Africa, they only lend to employed individuals whom they can make payroll deductions from. In the case of Capitec, they try and manage their clients in such a way that clients receive their salaries into a Capitec current account, giving Capitec first access. (Up to 52% of its clients received their salaries in a Capitec account in 2014). In the case of Real People, they argued that they would have been able to charge lower interest rates if they had better access to the clients' income. The implication for HMF in Africa is that payroll access should only be given to institutions that charge lower HMF loan rates. At the same time, low quality credit reports also led to higher costs in the form of impairments in both Malawi and South Africa.

The three cases also demonstrated how the interest rate charged on HMF loans depends on the achievement of target ROEs. Thus, higher costs lead to higher interest rates charged and less HMF. In Malawi costs were inflated due to a weak legal environment that limited the availability of security and the collection of debts.

10. Glossary and Abbreviations

10.1 Glossary

- Bank – Banks, unlike other institutions, have the ability to accept deposits. Banks are also highly regulated institutions because of this ability.
- Basel Capital Accords – International minimum regulatory standards for banks.
- 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.
- Capital structure – The ratio between the amount of equity financing and debt financing in an organisation.
- Impairments – The expected loss on loans provided to customers due to the failure to repay the loans.
- 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 organisation transfers a portfolio of loans to a special legal entity that issues bonds to finance the purchase of the portfolio of loans.
- Return on equity (ROE) – The profit generated by equity capital, excluding debt capital. It is expressed as a percentage of equity capital.

10.2 Abbreviations

CAHF	Centre for Affordable Housing Finance in Africa
CTA	Construction technical assistance
HfH	Habitat for Humanity
HMF	Housing microfinance
HMFI	Housing microfinance institutions
NHFC	National Housing Finance Corporation
RHLF	Rural Housing Loan Fund
ROA	Return on assets
ROE	Return on equity