

CHALLENGES OF INTERNATIONAL HOUSING FINANCE
INSTITUTIONS: THE CASE OF SHELTER AFRIQUE //

By

LWALI, ELIZABETH KANAKANIA¹¹
Reg. No.

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DECLARATION

This research project is my original work and has not been presented for a degree in any other university.

Signed EL Kanny Date 16/11/2008

LWALI ELIZABETH K.
D61/P/8854/04

This research project has been submitted for examination with my approval as the university supervisor.

Signed [Signature] Date 17/11/2008

Mr. Vincent O. Kamasara
Lecturer
Department of Finance & Accounting
School of Business
University of Nairobi

DEDICATION

To my dear parents, Dr. Joseph Charles Lwali & Mrs Josephine N. Lwali, for who they are and what they stand for, the totality of which has contributed positively to who I am today.

Special mention also goes to Mr. [Name] [Name] [Name] but his contributions were invaluable.

I thank all the participants who were involved in their busy schedules to respond to my [Name] assistance I required.

Special tribute is also given to my [Name] understanding even when I spent [Name] period. My thanks also go to my [Name] me in getting to the successful [Name].

Finally and most important of all, thank you [Name] who is [Name].

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DECLARATION

I am indebted to the supervisor of this Research Project, Mr. Vincent Kamasara for the contributions he made to shape the final outlook of this project. His useful comments and positive criticisms helped in the successful completion of this project. Mention also goes to Mr. Sifunjo Kisaka who directed me for so short a time but his contributions were invaluable.

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I thank all the participants who were involved in this study. They took time out of their busy schedules to respond to my interview and gave me all the necessary assistance I required.

1.1 Background to the Study

Special tribute is also given to my husband and children, for being strong and understanding even when I spent so much time away from them during the study period. My thanks also go to my friends and classmates who encouraged and assisted me in getting to the successful completion of this study.

Finally and most important of all, to God who gives me life and strength, without whom I am nothing.

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ABSTRACT

Financing plays a major role in the housing sector and the fact that many individuals solve the housing problem by renting does not alter the role of financing in the provision of rental units whether they are provided by the public or private sector. However, this financing is not without challenges. This study sought to find out the specific challenges faced by international housing finance institutions in Africa today.

The research objectives are geared towards establishing challenges faced by international housing finance institutions in Kenya and to show the effect of country interest, inflation and exchange rates on the performance of housing projects. The population comprised international institutions offering housing finance in Kenya. The research was conducted through a case study design the target organization being Shelter Afrique. Primary data was obtained through the use of an interview guide while secondary data was sourced from the Central Bank of Kenya, Shelter Afrique project files and other write-ups on the subject. Analytical and conceptual models were used in finding out the relationship between performance of projects with respect to movement of interest rates, inflation and exchange rates.

The findings of the study revealed that the major challenges experienced by Shelter Afrique were as a result of unpredictable changes in the macroeconomic environment. Performance of housing projects funded Shelter Afrique were also affected due to these changes resulting into enhancement of credit risk. During the period under review Shelter Afrique did not forecast the macroeconomic variables but put in place measures to manage them.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the Study

The internalization of the financial landscape over the past half century is by now a well established fact, the effects of which are felt at all levels of economic activity.

This trend shows no signs of abating. On the contrary, it seems likely to accelerate as borrowers and lenders alike become more aware of the potential opportunities for lower costs, increased returns and diversification benefits to be gained from an international approach to finance.

Due to the upsurge in urbanization in Africa, pressure has mounted for the need for more housing and by extension housing finance services. This has seen changes in the way in which governments facilitate housing by moving from direct provision of housing for its peoples to creating an enabling environment to enhance housing provision.

Indeed financial institutions in Africa over time have strived to position themselves to provide this much needed service. However, due to high demand that far outstrips supply in these nations, international housing finance institutions (IHFIs) are now emerging to contribute towards the efforts of making financing for housing available to peoples of the African continent. Examples of these institutions include Shelter Afrique, Overseas Private Investment Corporation, East African Development Bank and the PTA Bank. However, this move by IHFIs is not without its challenges.

Clark (2002) observes that besides cultural differences in institutions, legal and financial traditions, information sources and the like, there are other serious constraints such as legal barriers, transaction costs and discriminatory taxation that can affect the outcome of cross-border financial operations. Eun & Resnik (2004) share this view and identify three major dimensions that set international housing finance apart from domestic housing finance as foreign exchange and political risks, market imperfections and expanded opportunity set. Brigham & Gapenski (1996) concur with these observations and summarily classify these challenges into the following categories: Different currency denominations, economic and legal ramifications and political risk. These factors complicate financial management and increase the risks faced by firms.

In Sub-Saharan Africa (SSA), these challenges are magnified as a result of the unstable macroeconomic environment, that do not render themselves to easy predictions. Tomlinson (2007) notes that in a recent report co-authored by a number of development agencies, including the African Development Bank, the African Economic Research Consortium, the Global Coalition for Africa, the United Nations Economic Commission for Africa and the World Bank, which highlighted key issues affecting SSA's development, revealed that SSA was the only global region where per capita GDP is lower in the late 1990s than it was 30 years ago with nearly 40% of its population living below the international poverty threshold of USD1 per day.

According to Senbet and Otchere (2005) it is important to increase the development of capital markets and accelerate financial sector reforms as a means of integrating Africa into the global financial economy in order to attract international capital. SSA countries must therefore continue to pursue interest rate liberalizations, the removal of

credit ceilings, the restructuring and privatisation of state-owned banks, the introduction of a variety of measures to promote development of financial markets, including money and stock markets and private banking systems, along with improving banking supervisory and regulatory schemes. How practical are the above recommendations in SSA. Is it easier said than done? Is it beyond SSA to put in place these financial sector reforms? But the question is whether it is easy to make these changes in SSA with its ever changing macroeconomic environment.

Take for example, the case of Zimbabwe where the inflation rates are currently over 13 billion (www.china.com). How does the government in power encourage financial sector and development with such outrageous statistics? The report goes on to state that with goods unavailable and official statistics widely distrusted, the Cato Institute in Washington, USA, calculated the figures based on exchange rates movement and market data.

It is quite evident that SSA faces its own unique complex challenges that in turn are challenges to international institution wishing to invest on the continent. For example, in an IMF Working Paper, Sacerdoti (2005) examined developments in bank credit to the private sector in SSA and highlighted the barriers seen to accessing credit. Contrary to conventional wisdom, he found that banks in SSA are more liquid than expected, but are reluctant to expand credit to other than their most credit-worthy borrowers. Sacerdoti argues that credit expansion remains modest in most countries and the ratio of credit to the private sector to GDP limited *because the institutional framework is not supportive to lending*. The legal framework for establishing property rights is limited, mortgage market infrastructure is limited, risk assessment of borrowers is limited and so on.

While a number of countries in SSA have efforts underway to correct these problems, it is important to recognize that certain corrective actions are more readily feasible than others – for example, a credit bureau is relatively easy (albeit expensive) to establish. Other corrective measures require much more substantial efforts involving fundamental institutional restructuring such as correcting deficiencies in the judicial system, revamping the title system and carrying out registration of land (Sacerdoti,2005).

The political climate in SSA is also worthy of mention. A relevant factor for any international organization, whether housing or not. Rwanda, Ivory Coast, Sierra Leone, Liberia, Sudan, Somalia, Eritrea, Guinea Bissau, Democratic Republic of Congo just to name a few, have just come from a civil war or are still plagued with one. According to a study conducted by Oxfam, Saferworld and the International Action Network on Small Arms in 2006, Africa is losing billions to conflict. From 1990 to 2005, the cost of armed conflict in Africa was a whopping US \$ 284 billion, roughly the total amount of international aid to the continent during the period. 23 out of 53 countries were in conflict during this period! This study therefore undertook to explore housing finance challenges faced by international institutions, the focus being on Kenya.

1.1.1 Housing Finance

Housing finance is the provision of finance or capital for housing. Housing finance can be taken to mean the capital required for the construction of housing or housing projects, the resources required to acquire or access housing projects by households or credit supplied by (housing) finance institutions, UN Habitat Report (1991). Housing finance is very important to the development of housing since housing requires large

sums of money. Although all of the various institutions that lend money for long term on real estate projects are often called banks, there are actually several types of lending institutions including the following: Savings and loan associations, insurance companies, quasi-governmental corporations (parastatals), pension funds and other trusts and real estate investment institutions, Malombe (1981).

The UN Habitat (1991) categorizes housing finance providers as governmental or parastatal housing banks, authorities or corporations. They have a large proportion of their funds from governmental allocations or through forced taxation/payroll levies on all or some individuals or organization, but might also allow individual or institution deposits. They provide long term lending for housing often with built in subsidies and a very low rate of foreclosures or eviction of defaulters; Private housing banks differ from these in that they are established by the private sector. Their main source of funds is likely to be deposits and bonds and/or debentures, though they might have governmental and or external/international funding as well

Housing finance providers may also include mutually owned organizations, societies and associations such as building societies, savings and loans associations and housing cooperatives which exist primarily as a means for their members to accumulate and access housing finance. Most of their funds therefore come from member deposits, but they might also take other deposits. Of interest to note are other housing finance providers including banks, provident and pension funds who lend to individuals against expected future funds, credit unions that use member contributions and informal housing finance suppliers such as own individual sources borrowed from

for example employers, unregistered societies or groupings and some Non Governmental Organizations (UNHabitat,1991).

Buckley (1999) notes that mechanisms observed for housing finance provision in low income countries, or the so called developing countries, such as those found in Africa, are often complex institutions that are structured in a surprisingly wide variety of ways. Malombe (2004) on the other hand argues that economic crises in most these countries since early 1980s has necessitated the adoption of economic and financial sector reforms in an attempt to establish the foundation for sustainable growth. In housing, as indeed in other sectors, the central thrust of the reforms has been to diminish or to eliminate the involvement of the state in the financing and production of housing. The role of the state has thus been restricted to the creation of a policy and institutional framework

In the UN-Habitat's report, *Financing Urban Shelter: Global Report on Human Settlements 2005*, it states that within the next 20 years there is little likelihood that in many developing countries conventional sources of finance will be available for investment on the scale needed to meet projected demand for infrastructure and housing. Many countries around the world continue to face deficits in public budgets and weak financial sectors. The report states that this is the case in Sub-Saharan Africa (SSA), with at best uneven growth in a few countries. In the countries that are seeing improvements in their macroeconomic situation, these SSA governments are concerned that their banking systems are not providing enough support to the private sector, which in turn affects whether or not formal housing finance is available. For example, in Ghana and Tanzania, only about 5 – 6% of the population has access to the banking sector.

Kenya, facing challenges of rapid urbanization, has not been spared the demand for housing and housing finance by extension either. There is a large growing housing gap – estimated at approximately 150 000 units per year against the current supply of 35,000 units as estimated by the Ministry for housing. However in order to meet this target vast sums of money are required which are not readily available to the government due to budgetary constraints. Indeed McGuire (1981) observes that lack of a constant and guaranteed source of money to fund housing production around the world is a major obstacle.

To sustain housing production year in year out and to provide the mortgages for investors and home owners requires not only availability of funds but also from dependable sources at reasonable rates but also structures to facilitate the same. A good housing finance system thus brings together lenders, builders, consumers and the government. It consists of all institutions that are essential to sustain the flow of money into and through the housing sector. However, provision of housing finance provision has its own challenges. According to the Office of the Comptroller, USA (1996), the following are risks associated with financing for housing: credit risk, interest rate risk, price risks, liquidity risks, compliance risks, strategic risks and reputation risks. By far the worst risk to affect a housing finance investor is the credit risk – the risk that a borrower will be unable to service his loan. This risk is directly proportional to certain economic indicators such as inflation which impact on interest rates (UN Habitat, 1991).

1.1.2 Shelter Afrique

Shelter Afrique was established in 1982 to play an active role in the promotion of housing by mobilising finance and as an instrument through which African and non-

African institutions can channel finance and technical assistance for the development of habitat and housing in African states. The current membership of Shelter Afrique comprises 42 African countries and three African regional bodies (ADB, Africa-Re & Actis Corporation) as shown in Table 1 below. A breakdown of percentage shareholding is as in the attached appendix 4 (Shelter Afrique, 2008)

Table 1: Shelter Afrique shareholding as at December 31, 2007

REGION	COUNTRIES/ INSTITUTIONS	BREAKDOWN
North Africa	4	Algeria, Morocco, Mauritania, Tunisia
West Africa	12	Burkina Faso, Benin, Gambia, Guinea, Guinea Bissau, Liberia, Mali Senegal, Sierra Leone, Niger, Nigeria, Togo
Central Africa	9	Cameroon, Cape Verde, Central African Republic, Chad, Congo, DRC, Gabon, Guinea Equatorial, Sao Tome & Principe
East Africa	7	Djibouti, Kenya, Rwanda, Tanzania, Somalia, Uganda, Burundi
Southern Africa	10	Botswana, Lesotho, Madagascar, Malawi, Mauritius, Namibia, Seychelles, Zambia, Zimbabwe, Swaziland
Institutions	3	African Development Bank, Africa Reinsurance Corporation and Actis Corporation

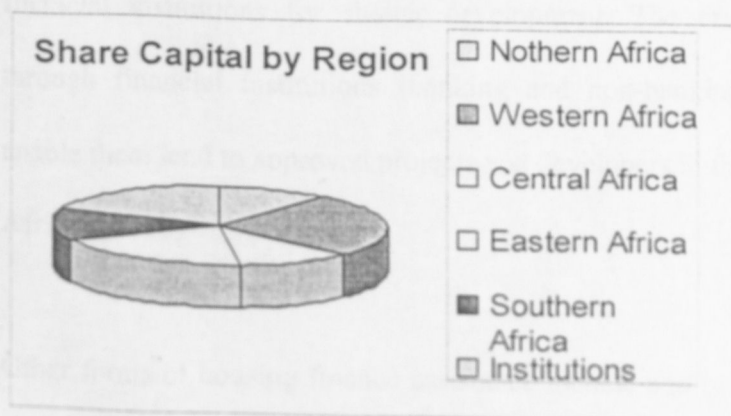


Figure 1: Pie Chart representation of Shelter Afrique Shareholding as at 31 Dec 2007

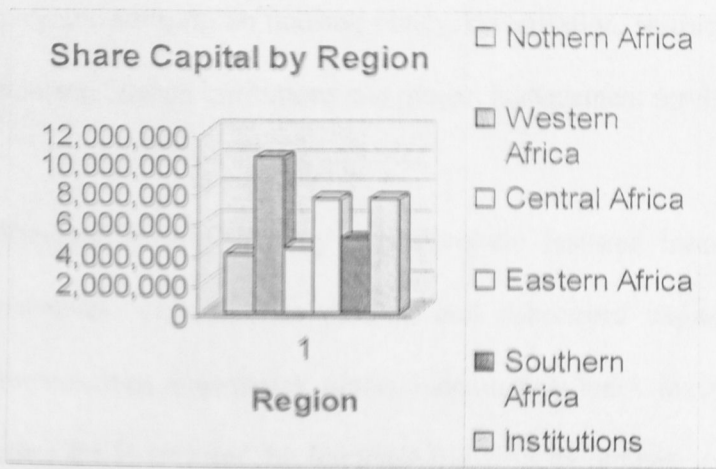


Figure 2: Graphical representation of Shelter Afrique Shareholding as at 31 Dec 2007

Shelter Afrique considers applications from both public and private sector agents for assistance on shelter and related projects as well as commercial buildings in pursuit of its objectives. Applications may be for the following forms of assistance: Direct Loans for project financing relating to development of new housing estates, infrastructure provision through site and services schemes, neighbourhood and housing improvement and commercial real estate; Lines of credit to housing finance institutions including for on lending mortgage finance; Guarantees: to small and medium-sized developments to enable them source funds from local financial institutions or meet contractual obligations and for local currency loans provided by financial institutions for shelter development. The credit guarantee is provided through financial institutions (banking and non-banking financial institutions) to enable them lend to approved projects and developers in their local currencies (Shelter Afrique, 2008)

Other forms of housing finance assistance include equity participation through direct investment through share acquisition, convertible bonds (quasi-equity) and joint venture investments and Technical assistance which involves facilitation of structuring project proposals, preparing feasibility studies and/or implementing

projects, advising on housing policy, privatisation, restructuring and establishment of housing finance institutions and project management services (Shelter Afrique, 2008)

Shelter-Afrique's ordinary operations are financed from its ordinary share capital resources. This include paid-up and subscribed capital, borrowings from other sources, loan repayments, grants, income from loans, investments and guarantees, and other funds received by Shelter-Afrique in its ordinary operations. Loans and other facilities are denominated in United States Dollars (US \$) and Euro as well as local currencies of some member countries but reporting is in US \$. The loans are structured as either short, medium and long-term. In all cases the proceeds of the loans must be applied to housing and related services. As at 31/12/2007 Shelter Afrique's asset base stood at US \$ 73, 000,000, of this the project loans totalled US\$ 50,000,000 (Shelter Afrique audited accounts as at 31/12/2007)

The Company has so far supported 68 housing construction projects in Nairobi-Kenya with a total loan value of US \$ 60,521,544.00 (Operations Department Report, 2008): Most of them are small and medium-sized enterprises that develop small to medium scale projects mainly due to their inability to raise larger sums of equity funds (Shelter Afrique Annual Report, 2006). As at December 2007 Shelter Afrique's asset base stood at US \$ 77.5 million. Of this, the project loans component accounted for US \$ 53 million (Shelter Afrique Audited Accounts as at December 31, 2007).

1.2 Statement of the research problem

Financing plays a major role in the housing sector and the fact that many individuals solve the housing problem by renting does not alter the role of financing in the

provision of rental units whether they are provided by the public or private sector.

However, this financing is not without challenges (Njuguna, 1992).

One of the major challenges housing finance institutions have to grapple with is the credit risk - the probability that a borrower will not be able to honor debt repayment. Indeed the effect of this risk has recently been felt following the subprime mortgage crisis in the USA when undervaluation of real risk in the subprime market ultimately resulted in cascades and ripple effects affecting the world economy. Evidence points out to losses by "heavyweight" international financial institutions of staggering amounts such as Merrill Lynch, a US bank, announcing that it was taking US \$ 8 billion worth of losses on mortgage related securities and several days later UBS, a Swiss bank, unveiling a US \$ 3.4 billion of 3rd quarter 2007 related losses with other big banks following suit. The tangible scale of defaults in the US mortgage arena as at November 2007 was still unclear, particularly in that sector of the mortgage known as "subprime" - loans extended to borrowers with poor credit histories at relatively higher interest rates (The Financial Times, November, 2007).

Credit risk is enhanced in Africa which suffers from instabilities in its economic environment that is volatile and its predictability quite elusive. Variable rates of inflation resulting from, among other factors, political environment in these countries enhances credit risk (Mcguire, 1981). The resultant variable inflation rates push interest rates (UN Habitat, 1991) which lead to credit defaults and foreclosures.

However, empirical studies on housing finance in Africa seem to be limited. Indeed Tomlinson (2007) observes that although much has been written on housing in general, there appears to be little written on housing finance in Africa. Probably less

well documented, she notes, are the views of academics, as they tend not to focus on housing finance *per se*, but rather write on topics such as urbanization, unplanned settlement upgrading, etc. Perhaps the underlying reason could be a unique issue of developing countries where housing finance delivery mechanisms are often complex institutions that are structured in a surprisingly wide variety of ways (Buckley, 1999). Owing to the fact that Sub-Saharan Africa comprises over 40 countries, it is impossible to examine all of them through a 'rapid assessment' information gathering exercise (Tomlinson, 2007).

Indeed, housing problems from one country to another differ in their magnitude, scope, dimension and fundamental causes (Malombe, 1981). It is in view of the gap that exists on literature on housing finance in Sub-Saharan Africa, and Kenya in particular, that this study is premised. Therefore this study aimed at answering the following questions:

1. What are the challenges facing international housing finance institutions in Kenya?
2. What is the effect of interest, inflation and exchange rates on the performance of Shelter Afrique funded projects?

1.3 Objectives of the Study

- a) To establish challenges faced by international housing finance institutions in Kenya and how they are managed.
- b) To show the effect of the country interest rates, inflation rates and exchange rates on the performance of housing projects funded by Shelter Afrique.

1.4 Importance of the Study

- a) Shelter Afrique – to critically assess the impact of microeconomic variables to its operations
- b) To other housing finance institutions in Kenya and beyond with a goal to offering cross-border services/products.
- c) Respective government housing departments or ministries of Shelter Afrique member countries – on ways they may provide facilitation to such institutions that play a vital role in the promotion of housing development
- d) To increase the body of knowledge on real challenges faced by Housing (construction) financing institutions in less developed countries, specifically in Kenya.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter reviews the related literature of the study. Specifically, it consists of the following sub-sections: Housing Finance in Africa, International Housing Finance Challenges and their management, Housing Finance in Kenya and a summary of the highlights of the whole literature review.

2.2 Housing Finance in Africa

African countries are experiencing rapid urbanisation resulting in exponential increase in demand for housing and by extension housing finance. Consequently, governments in these countries are under pressure to realign their respective housing sectors in order to meet this demand. However, due to varied complexities of individual countries, the provision of this vital commodity is proving to be an uphill task not only for these governments but also housing finance institutions that have been established to meet the rising demand for financing services.

As with other capital goods, housing is an asset that yields a stream of shelter services over a long period of time. And like other capital goods, housing's capital cost is large relative to its return in any single period. Individuals seeking to acquire housing are therefore obliged either to accumulate savings over time with which to make an outright purchase or borrow funds that can be repaid in instalments appropriate to the individual's receipt of income (UN Habitat, 1991).

Decision makers and planners have repeatedly put their faith in massive injections of capital for funding housing projects. However, it is worth noting that the effectiveness of such investments will depend on several other factors – among them – the absorption capacity and preparedness of the institutional organisation in the country. Shelter development is as much a function of the administrative and organisational structures, judicious physical planning and land management, as of unlimited availability of funds (ECA Documents, 1981). Indeed, the development of a housing finance system is strongly related to the general development and sophistication of a country's financial market, which in turn, is closely related to overall national economic development (Sa-Aadu, 2004)

Traditional efforts by governments to promote housing finance through interest rates controls, directed credit, housing subsidies, and tax-based housing funds have undermined the development of viable housing finance systems in African countries. Buckley (1999) observes that housing finance delivery mechanisms observed in developing countries, are often complex institutions that are structured in a surprisingly wide variety of ways. Their evaluation is country specific and does not lend itself to easy generalizations.

Sa-Aadu (2004) argues that ill conceived urban policies in the areas of mortgage finance, infrastructure, building codes, land-use regulation and zoning, have tended to exacerbate the problem of housing and its financing in Africa. Infrastructure is simply the provision of basic necessities that facilitate or promote housing development such as storm drainage facilities, water, electricity and roads. Land use regulation and zoning comprise the structures that the governments have put in place in planning and

zoning of housing developments. What type of housing structures are allowed in an area, flats? Maisonettes? These also includes building codes. The most important of all is mortgage finance. Availability of this vital resource to the would be buyers. What criteria is used? How much should an individual earn to qualify?

For example, in an IMF Working Paper, Sacerdoti (2005) examined developments in bank credit to the private sector in SSA and highlighted the barriers seen to accessing credit. Contrary to conventional wisdom, he found that banks in SSA are more liquid than expected, but are reluctant to expand credit to other than their most credit-worthy borrowers. Sacerdoti argues that credit expansion remains modest in most countries and the ratio of credit to the private sector to GDP limited *because the institutional framework is not supportive to lending*. The legal framework for establishing property rights is limited, mortgage market infrastructure is limited, risk assessment of borrowers is limited and so on.

Sacerdoti (2005), in agreement with Sa-Aadu (2004) asserts that while a number of countries in SSA have efforts underway to correct these problems, it is important to recognize that certain corrective actions are more readily feasible than others – for example, a credit bureau is relatively easy (albeit expensive) to establish. Other corrective measures require much more substantial efforts involving fundamental institutional restructuring such as correcting deficiencies in the judicial system, revamping the title system and carrying out registration of land.

Other problems faced in developing countries are basically as a result of the underdeveloped financial markets and unfamiliarity with basic concepts such as long-term loans, interest, and repayments (Shelter Afrique, 2004). As a result, most African states are faced with challenges of providing decent and affordable housing

for their people (Boleat, 1987). Except for South Africa, Ghana and a handful of East African countries, home financing sector in the rest of Africa remains in its infancy (Coovadia, 2007). Sub-Saharan African countries are the second lowest (after South Asia) in the ratio of mortgage loans to total investment in both the formal and informal sectors.

For Southern African countries, commercial banking sector is significantly involved in mortgage lending and provides most housing finance. However, this is not the case for most African countries! The housing finance sector is dominated by public sector created housing finance institutions (parastatals) which receive financial support from the governments, offer subsidized loans. However, they are generally weak institutions, with very limited coverage, in addition to being politically susceptible and unstable. Some private sector led institutions in the sector are emerging in some other countries such as the Gambia, Ghana and Kenya which promise to provide mortgage to low-to-medium income clients (Shelter Afrique Annual Report, 2006).

2.3 International Housing Finance Institutions (IHFIs) Challenges

There are certain disadvantages of cross-border transactions that set apart international housing finance institutions from the domestic ones and if not well managed can even bring the very corporation down. As Sharan (2001) observes, the greater the degree of involvement of the firm in international economic environment, the greater the complexities. In SSA, it appears that the dynamics add to the complexities. Erb, Harvey & Viskanta (1995, 1997) observe that the volatility of the macroeconomic environment of developing countries is much greater than that of developed countries.

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The best terminology that captures IHFI's challenges is country risk. This is a risk that relates to the possibility that, political, legal, social and economic events in a country may prevent a debtor from honoring its obligation. It encompasses elements of concentration risk and quality of loans portfolio, straight default or repudiation, delays in payment of interest and principal and debt rescheduling. There are also elements of transfer risk, which relates to the ability or willingness of the debtor to honor its obligation inclusive of local currency risk (Shelter Afrique, 2008). Below are expounded explanations of these factors.

2.3.1 Economic Factors

Under economic factors, we look at inflation and interest rates, foreign exchange risk and financing.

2.3.1.1 Inflation & Interest rates

Positive interest rates (lending rates in excess of inflation rates) are viewed as a prerequisite for successful sustainable finance (Buckley, 1999). Long term loans, such as mortgage financing loans, have higher interest rates as a result of expectation of, among other factors higher inflation, (Gitman (1997). In the housing finance context high and variable rates of inflation are the worst case. The levels and variability of inflation are the most readily observed influence on the risk elements that contribute to the market rate of interest, because the variability of inflation exacerbates uncertainty about the future and increases interest rate risk. This in turn enhances credit risk (UN Habitat, 1991). McGuire asserts that volatile and unpredictable macroeconomic environments increase a country's inflation rates.

Such volatility has not spared SSA. Erb, Harvey & Viskanta (1995, 1997) link market volatility to variables such as country demographics and inflation risk and observe that market volatility is high when inflation risk is high. They attribute the volatility to three factors: First, developing countries receive bigger exogenous shocks that may come from financial markets, taking the form of for example “sudden stops” of capital inflows;

Secondly, developing countries seem to experience more domestic shocks generated by a combination of the intrinsic instability of the development process and self inflicted policy mistakes; Lastly, developing countries have weaker “shock absorbers,” because external fluctuations have larger effects on their macroeconomic volatility.

The case of Kenya is no exception to this volatility. Data from the Central bank of Kenya shows quite varied rates over any 10 year period. For example, in the early 90s the rates were over 100% while at the turn of the century the inflation recorded was a single digit figure. So far in 2008, the inflation rates are two digit figure owing to the post election skirmishes as well as increases in fuel global prices. Indeed Gottschalk (2003)

2.3.2 Foreign Exchange Risk

Secondly IHFI's face foreign exchange risk. This is a speculative risk that is associated with lending activities due to its use of funds denominated in one currency to finance assets that generally generate cash flows in another currency. Traditionally, different nations use different currencies. This allows each nation some independence in setting

its national interest rate and monetary policy. Consequently, inflation rates and interest rates can differ markedly across countries, which, implies that the currencies exchange rates will not stay fixed over time (Solnik, 2000). In a housing finance context an IHFI may opt to give a loan in a local currency whereas its reporting currency is another. This exposes it to foreign exchange risk. In volatile economic environments in Africa, the challenge is on how to manage this risk.

2.3.3 Financing

Another notable challenge for international financial institutions is in the financing of its operational activities. International firms may wish to raise funds locally but due to regulatory or even development of a country's capital markets, this may not be easy. Gottschalk (2003) observes that in most developing countries, the capital markets are more vulnerable to shocks and manipulative actions.

Senbet and Otchere (2005) note the importance of increasing the development of capital markets and accelerating financial sector reforms as a means of integrating Africa into the global financial economy in order to attract international capital. They recommend that SSA countries must continue to pursue interest rate liberalizations, remove credit ceilings, restructure and privatize state-owned banks, introduce a variety of measures to promote development of financial markets, including money and stock markets and private banking systems, along with improving banking supervisory and regulatory schemes. However, this is easier said than done in the SSA context. Indeed Sacerdoti (2005) argues that credit expansion remains modest in most of these countries because the institutional framework is not supportive to lending.

For IHFs clients may opt for loans in their local currency. This forces such firms to borrow locally and depending on not only the cost of borrowing but also amount, it could be easier to borrow from the capital markets. Are SSA's capital market structures ready?

2.3.4 Legislative and Political Factors

For legislative and political factors, the two are interlinked in one way or another because government legislation are usually political decisions. For example legislation on business licences, currency inconvertibility, non-local firm legislations (Euromoney, 2007) fall under political political risk. However prudently a company researches counterparties and monitors events, adverse political circumstances can arise which put the balance sheet at risk (Euromoney, 2007). There is no real consensus on the exact definition of political risk. Buckley (2000) defines political risk as the exposure to a change in value of an investment or cash position resultant upon government actions. Clark (2002) views political risk as all aspects of a country's economic, financial, social and political organization as well as its geographic location and strategic importance while Sharan (2001) summarily states that the political risk affecting a particular industry or firm emerges on account of conflict between bonafide objectives of the host government and the operation of the international firm.

Different authors give various classifications of political risk. However, Euromoney (2007) gives a list that encompasses all classifications that include: Confiscation, expropriation or nationalization of an investor's permanent or mobile assets; Deprivation or inability to export finished products from the foreign investment or to

repatriate mobile assets; discriminatory governmental actions or acts of expropriation, which deprive an investor of their rights in the country or renders the operation uneconomical; licence cancellation/revocation; currency inconvertibility, or the inability to convert and/or freely transfer dividends or other scheduled payments from the host country; war and political violence causing physical damage to assets caused by military action, civil war, terrorism etc; forced abandonment of the investment or mobile assets and abrogation of a production, concession or government agreement.

A real example on how political risk may affect a firm is the Enron Case. Enron Development Corporation, a subsidiary of a Houston based energy company, signed a contract to build India's largest power plant. After Enron had spent nearly US \$ 300 million, the project was cancelled in 1995 by nationalist politicians, Eun & Resnik (2004).

SSA has had its share of political dictators and quite erratic political decisions that may drastically affect a firm's activities. Take the case of Zimbabwe when the government decided to take over white owned farms in 2007? (www.highbeam.com) or the famous Idi Amin expulsion of Uganda's Indians and Pakistanis in 1972 to make the country a black man's? (www.moreorless.com). IHFIs can thus be affected by a country's political situation at any given moment. Be it social or legislative in nature.

2.4 Management of Country Risk Challenges by IHFIs

2.4.1 Inflation & Interest rate management

An IHFI may not be able to manage inflation but can manage its effects. The related literature in the previous sub-section detailed on how high inflation causes uncertainty

that subsequently causes increases in interest rates. There are various ways in which interest rates can be managed, the most common being use of interest rate swaps. The Wikipedia encyclopaedia defines an interest rate swap as a derivative in which one party exchanges a stream of interest payments for another party's stream of cash flows. Interest rate swaps can be used by hedgers to manage their fixed or floating assets and liabilities. They can also be used by speculators to replicate unfunded bond exposures to profit from changes in interest rates. As such, interest rate swaps are very popular and highly liquid instruments.

2.4.2 Foreign Exchange Risk Management

In order to manage foreign exchange risk, a firm may require to measure it. Shapiro (2002) identifies two methods of forecasting this risk: Market based forecasts which are obtained by extracting the predictions already embodied in interest and forward rates and model based forecasts. The latter can be classified into fundamental analysis that relies on painstaking examination of the macroeconomic variables and policies that are likely to influence a currency's prospect. Variables examined include relative inflation and interest rates, national income growth and changes in money supplies. Another type of market based forecast is technical analysis which is an antithesis of fundamental analysis. It focuses exclusively on past price and volume movements while totally ignoring economic factors.

Once measured, a firm may resort to seeking way of managing its exposures to this risk. Yeager & Seitz (1989) identify the following five ways of managing foreign exchange risk: Balance Sheet Hedging also referred to as money market hedging. Most widely used to control transaction risk. Currency futures also called forward exchange

contracts that involves two parties entering into a contract agreeing to exchange a certain amount of one currency for a certain amount of another currency at a specified future date; Currency Swaps, a spot transaction in one direction offset by a futures contract in the opposite direction; Currency Options, which gives its holder the right, but not obligation to purchase a stated amount of a particular currency at a fixed price prior to a specified expiration date and lastly European Currency Unit (ECU): A package of currency consisting of stated amounts of the currency of each of the countries in the European Economic Community.

However, it should be noted that this forecasting and management of this risk is not an exact science. Yeager & Seitz (1989) conclude, while we usually expect risk to decline as we gain experience in a particular area, foreign exchange risk has increased concurrent with the increased volume of international business.

2.4.3 Measurement and Management of Political Risk

Fortunately or unfortunately sometimes IHFI's have to depend heavily on third party information in order to manage some factors of country risk. They are faced with the task of depending on models from credible institutions on their evaluation of each country's risk. This statement holds true especially for the management of political risk. Clark (2002) argues that in contrast to the hard data of economic and financial analysis, the political world appears a vast quagmire of nebulous, subjective terrain. In fact, the impression is often given that with the right methodological framework or key, well placed contact, political risk in a given country can be accurately forecast. It can't! The reality is just too complex (Clark, 2002).

Despite this complexity, various political risk forecasting services are available. For example, Haner (1979) developed a rating that is systematic. She rates on a scale from 0 to 7, a number of factors that cause internal political stress. Scores are aggregated and updated regularly as the world political climate changes as follows: 0-19 (minimal risk); 20 - 34 (acceptable risk); 35 - 44 (high risk) and over 45 (prohibitive risk). Other methods of country risk evaluation are prepared regularly by the periodical financial magazines such as *Euromoney* and the *Institutional Investor*. Sharan (2001) also delves into the issue of taking an insurance against any political risk as a way of managing this risk.

How accurate are these evaluations and if they are the ones used for setting limits on exposures then it implies that the international financial firm has to believe on such third party analyses. Can one actually tell that there is a country with better risk than the other? Most of these illusions are based on historical facts and projected into the future, how wise is this? But what other options do such corporations they have? We may recall how the United States had been seemingly a relatively low political risk country, but our sentiments were tried after September 11 terrorist attacks on the world trade center. On the other hand, one wonders whether there could be other better methods of determining country risks that international housing finance institutions can rely on.

2.5 Housing Finance in Kenya

The first housing policy for Kenya as spelt out in Sessional Paper No.5 of 1967 portrayed the Government as the provider of housing. In year 2000, Kenya formulated the National Housing Strategy that remained the guiding document for the housing delivery system. This strategy recognized the contribution of other actors in the

shelter sector and put a mechanism for monitoring performance (Wanyonyi, 2004). The most recent "The National Housing Development Programme (2003 – 2007)" has sought to develop solutions to the renewed growth in the housing sector (Ministry for Housing, 2006).

The forerunners of some of today's housing finance institutions, such as the Housing Finance (formerly Housing Finance Company of Kenya), were there before independence and provided mortgages only to European civil servants and to Asians on a limited basis. Until recently housing finance was government business. Housing Finance was owned equally by the government of Kenya and the Commonwealth Development Corporation of U.K., while Savings and Loan Ltd., the second largest HFI, was owned 100% by the government of Kenya through the Kenya Commercial Bank (KCB). KCB is now being privatized through the Nairobi Stock Exchange to reduce the government's holding to about 30%. The East African Building Society is the only major and credible privately owned Housing Finance Institution in the country. (Okonkwo, 1998)

Interestingly, despite the high demand for housing in Kenya, until recently, it appears that the mainstream banks had shied away from meeting this demand.

But perhaps also to be noted as a contributor to the "do not touch" attitude regarding housing finance could be the macroeconomic policy and the operating environment that has characterized the Kenyan market. How have the country risks been in Kenya?

Like many other countries in SSA, Kenya's inflation, interest and foreign exchange risks are quite high due to their volatile nature. Data from the Central Bank show variations in inflation of over 100% in the early 90s, single digit figure at the turn of the century and rising double digit figures commencing 2008. These variations are also observed for US Dollar exchange rate to the Kenya Shilling. A quick glimpse on the data reveals an average rate of Kshs.36 to the dollar in the 80s while the current rate is now approximately Kshs.80 to the Dollar.

The Kenyan banking sector is emerging from severe financial and reputational damage resulting from corruption (e.g. insider lending) and expansionist monetary policies, which led to economic recession and severe government debt during the late 1980s – 1990s. During this period banks stopped lending to the private sector, mainly because of an increasingly high level of non-performing loans. Both a lack of corporate governance and political interference contributed to this situation (DeClene and Wood, 2004).

Until December 2007, Kenya had maintained remarkable stability despite changes in its political system and crises in neighboring countries. However, the last general elections held in December 2007 that led to the incumbent President, Mwai Kibaki being declared as the overall winner in the Presidential race, resulted in unprecedented violence and destruction of property in the earlier part of 2008.

2.6 Summary

Owing to the rapid urbanization in developing countries in Africa resulting from rural-urban migration, there is a high demand for housing and by extension housing finance. Consequently, there is a rather urgent need for financial institutions, both

specialized and mainstream banks to focus on housing finance provision, which, due to budgetary constraints, cannot be met by the respective governments.

The studies identify challenges of international housing finance institutions which together can be termed as country risk. The most notable and adverse IHFI challenge being the credit risk, exacerbated by inflation – a major characteristic of a volatile macroeconomic environment (Mcguire, 1981). Challenges experienced by international housing finance institutions include foreign exchange risk, political risk, inflation which is directly proportional to interest rates and financing. Regarding political risk, there seems to be no consensus of its definition and whether its measurement is plausible in the first place. Buckley (2000), Clark (2002) and Sharan (2001) have different views on what actually political risk is, but all seem to concur on the fact that its measurement is complex.

Yeager & Seitz (1989) provide several ways in which Foreign exchange risk can be managed but of interest to note is their applicability to the African environment that exhibits weak and undeveloped financial institutions. How practical are currency swaps, currency options and forecasting of exchange rates in Africa? How does an organization use balance sheet hedging for regional common currencies? And lastly, how developed are the capital markets in Africa to finance activities of an international housing finance institution? This study's focus on international housing finance challenges, specifically in the Kenya economic environment, how they are managed and the impact of inflation, interest and foreign exchange rates to a geared housing project's performance.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter expounds on the way in which the research was conducted. It consists of the following sub-sections: research design, population of the study, data collection, data analysis, research model and the diagnostic test of the data collected. The target of the study is Shelter Afrique. The study made use of both quantitative and qualitative data.

3.2 Research Design

The research was conducted through a case study design. The method was appropriate as it involved an in-depth understanding of challenges of international housing finance institutions in Kenya with a focus of Shelter Afrique. It also enabled the researcher to get an in-depth understanding of how Shelter Afrique counters these challenges while operating in Kenya. The design was valuable for an in-depth contextual analysis.

3.3 Population of the Study

This comprised all international housing finance institutions offering housing finance services in the Kenya market. These were, Shelter Afrique, East African Development Bank and PTA Bank.

3.4 Data Collection

The study used both primary and secondary data and covered a period of 5 years (2003-2007). These years were deemed to be representative enough of changes in Kenya's macroeconomic environment. The primary data was captured using an interview guide which was administered through in-depth face-to-face interviews with the relevant top management of Shelter Afrique, selected through purposive sampling depending on their responsibilities, in order to enhance the level of responses. This enabled the respondents to give as much information as possible without any form of limitation. Main issues of focus in the guide were on Shelter Afrique's financial management, housing finance in Kenya and the Legal and Regulatory framework.

Secondary data was sourced from Shelter Afrique files and Central Bank of Kenya website, relevant books, journals, and other write-ups on the subject done locally. This data was crucial in identifying challenges faced by international housing finance institutions as well as the effect of the economic environment on the performance of project loans funded by Shelter Afrique. Below is a table of the kind of data extracted from the various secondary data sources.

Table 2: Secondary data and Information Obtained

No.	Secondary Data Source	Type of Information
1.	Shelter Afrique files	Cash flows and IRR of a completed housing project implemented during the period under review
2	Central Bank of Kenya website	Data for inflation, interest rates and foreign exchange for the 5 year period under review
3	FinMark Trust paper	Write up on

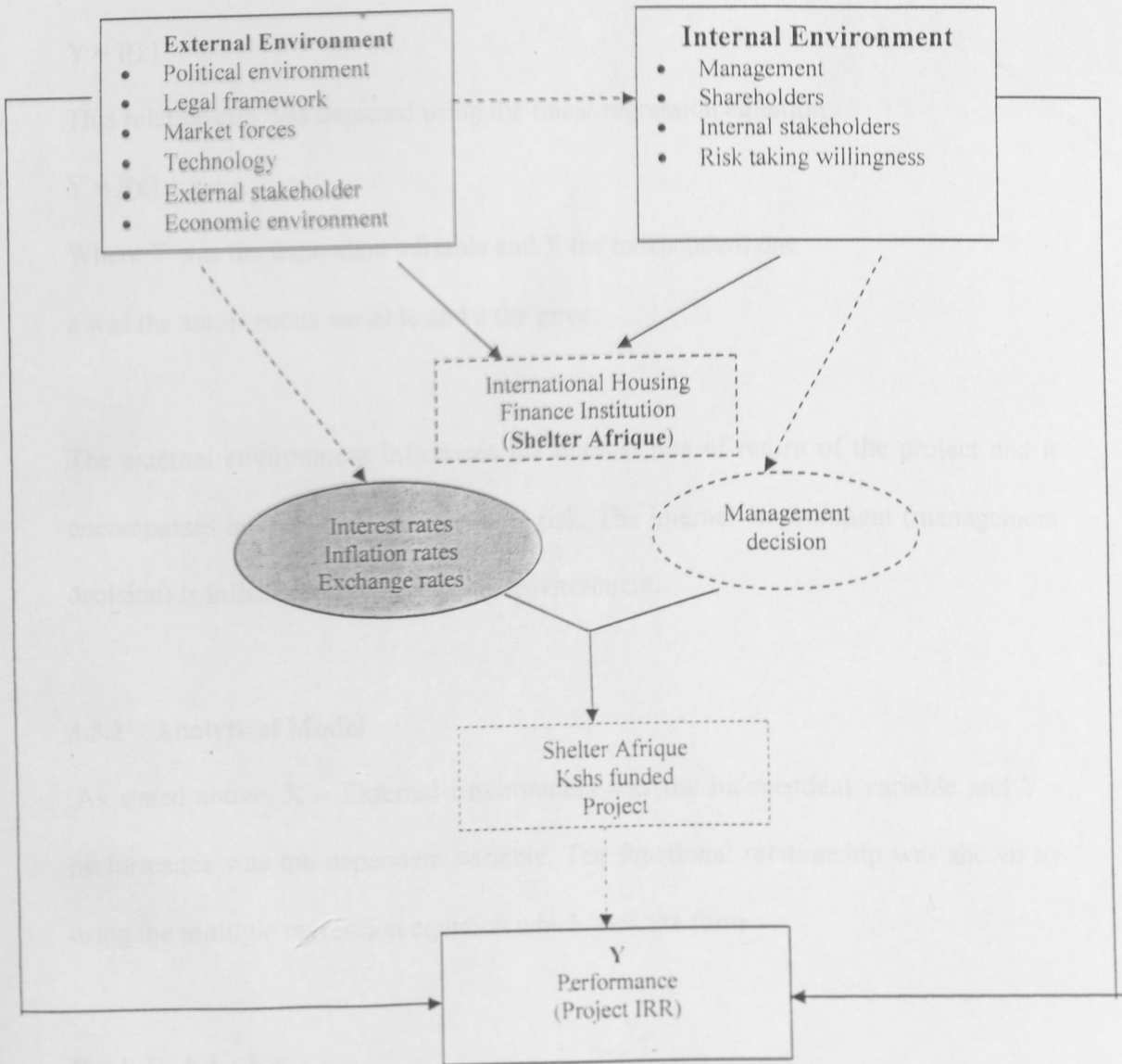
The primary data was sourced using purposive sampling. Senior Management Officials in Shelter Afrique were chosen depending on the nature of their responsibilities and experience held in the company. They were selected from Shelter Afrique's three main departments – Finance & Administration Department, Legal Department and Operations Department. The respondents had over 10 years experience and were deemed to be knowledgeable regarding the company's activities by virtue of their positions. An interview guide (Appendix 2) was used to guide the interview on the relevant questions to ask. It also gave the interviewee freedom to delve deeper into any relevant issue that could have been overlooked and thus not captured well in the guide. The respondents were fully cooperative.

The responses in the interview guide were edited for completeness and consistency into meaningful categories to enable the data to be analyzed. The data was analyzed by looking at the challenges faced by Shelter Afrique as an international housing finance institutions and how it manages them. The data results were tabulated and collated depending on the issue discussed for ease of comparison and interpretation of the findings.

3.5 Research Model

The study also sought to establish how inflation, interest and foreign exchange rates affected the performance of Shelter Afrique funded housing projects. This is illustrated by the conceptual model below. The analytical model and diagnostic tests were used to determine the relationship between these variables.

3.5.1 Conceptual Model



Where:

X= factors from the external environment (interest rates, inflation, exchange rates),

Y= Project Performance.

The external environment encompassed the interest rates, inflation and exchange rates. These were the independent variables. Project performance was deemed to be Internal Rate of Return for a housing project and it was the dependent variable.

The relationship between the variables was expressed as:

$$Y = f(x)$$

This relationship was depicted using the linear regression equation:

$$Y = f(x) + a + e$$

Where Y was the dependent variable and X the independent one

a was the autonomous variable and e the error

The external environment influences the internal rate of return of the project and it encompasses interest rates and political risk. The internal environment (management decision) is influenced by the external environment.

3.5.2 Analytical Model

As stated above, X – External Environment was the independent variable and Y - performance was the dependent variable. The functional relationship was shown by using the multiple regression equation which took the form :

$$Y = b_1I + b_2I + b_3E + e$$

Where,

Y : Projects Internal Rate of Return

I_f : Inflation rates

I_r : Interest rates

E_f : Exchange rates

e : Error

The assumption made was that all other factors were held constant

3.5.2.1 Measurement of the variables

Y : Projects Internal Rate of Return : The initial IRR calculated from the project cash flows and a discount rate being the cost of capital at the beginning of the project was extracted from a sample housing project, results obtained and tabulated showing variations of IRR with respect to the independent variables. It was expected that an inverse relationship would hold between the IRR and inflation or interest rate or exchange rates

I_r , I_f & E_r : Inflation, Interest rates and foreign exchange rates with respect to the US Dollar. These were factors that impacted upon the performance of a housing project, positively or negatively depending on the economic environment in Kenya. The interest, inflation and exchange rates for the period under review were obtained from the Central Bank of Kenya website

3.6 Diagnostic Tests

The t-test was computed for significance of individual coefficients. The f-test was also calculated for joint significance of all coefficients.

CHAPTER FOUR

4.0 DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This chapter presents analysis and findings of the research. Findings in this chapter have tried to fulfill the objectives of this study. The first section analyses secondary data while the second section analyses primary data.

4.2 Summary Statistics

This section illustrates the statistics of inflation, interest rates, exchange rates and internal rate of return of a sample housing project in Nairobi. The objective of the housing project selected was to develop forty five (45) middle class residential apartment units for outright sale to the public. The amount of loan borrowed from Shelter Afrique was KShs 70,000,000. The projects calculated initial Internal Rate of Return (IRR) in year 2003 was 34.5%. The discounting rate used is assumed to be the cost of funds for this particular project and it varied depending on the movement of rates in market. The discounted cash flows are based on the following assumptions: Kshs. 70 million is advanced to the borrower; the loan carries a variable interest rate depending on the movement in the market rates – the starting rate being 16.5%; interest is payable in quarterly periods; sales proceeds are received over staggered periods during construction and, all things being held constant, the project runs for a period of 5 years (2003 – 2007).

The values of inflation, interest rates and exchange rates are provided for the period 2003 to 2007 in quarterly periods as shown in Table 3 below. Exchange rates refer to

the Kenya Shilling with respect to the US dollar while the interest rates reflect the Kenya 91 day treasury bills rates. IRR comprises Shelter Afrique's measurement of project performance. Nominal values in determination of IRR are used. This was computed for the sample project and the average for each quarter taken. Any increase or decrease in the t-bill rate would be added or deducted to the initial rate of 16.5% accordingly to give respective discounting rates, the assumption being that the cash flows over the period are held constant.

From the table 3 above we note that the performance of the projects started on a high note in 2004 and 2005. In 2006 there was a minor

Table 3: Summary of Statistics

Year	Quarter	IRR (%)	T. bills interest rates (%)	Inflation (%)	Exchange rate
2003	Q1	34.498	7.466	5.600	76.997
	Q2	34.708	5.032	13.000	73.926
	Q3	35.024	1.183	9.400	76.842
	Q4	35.341	1.273	11.200	76.979
2004	Q1	25.345	1.550	11.400	76.895
	Q2	24.407	2.328	12.200	79.373
	Q3	22.287	2.241	9.900	80.401
	Q4	21.382	5.685	12.900	79.953
2005	Q1	20.665	8.492	12.200	75.813
	Q2	20.575	8.614	8.500	76.622
	Q3	20.486	8.606	7.500	75.273
	Q4	20.397	8.034	13.000	73.486
2006	Q1	21.292	7.954	11.300	72.351
	Q2	20.843	6.875	14.400	72.436
	Q3	21.472	6.101	15.800	72.973
	Q4	20.754	6.322	16.500	70.455
2007	Q1	21.292	6.180	10.200	69.684
	Q2	21.023	6.649	8.600	67.279
	Q3	20.131	7.055	8.400	67.156
	Q4	21.924	7.312	12.000	64.738

Inflation rates recorded its peak value in the last quarter of 2006 at 16.5% while year 2003 recorded the lowest figure at 5.6%. With respect to exchange rate movements, there was a significant rise in the rate in the year 2004 but in the years that followed there was a step by step decline. The second table gives the discounting rates

Table 4: Descriptive Statistics

	Mean	Std. Deviation	N
IRR	24.0720	5.637773	20
T. bills interest rates	5.7476	2.583756	20
Inflation ¹	11.2000	2.757001	20
Exchange rate	73.9815	4.394053	20

From the table 3 above we note that the performance of the projects started on a high note in 2003 before spiraling down in 2004 and 2005. In 2006 there was a minor increment which continued improving until in 2007 where the IRR was 21.92% in the last quarter. It should be noted however, an initial IRR was used and the analysis is actually being carried out using historical records just to show how changes in the economic environment affect a housing projects performance. If all things are held constant and we keep on varying interest rates over a five year period, this would be the result.

On the other hand the treasury bills interest rates started on a relatively high note at 7.46% quarter one of 2003 the slumped the rest of the year up to quarter 1 2004. A marginal increase is observed in the subsequent quarters up to 2005 when a peak of 8.6 was recorded. In 2006 and 2007 it maintained an almost stable figure.

Inflation rates recorded its peak value in the last quarter of 2006 at 16.5% while year 2003 recorded the lowest figure at 5.6%. With respect to exchange rates movement, there was a significant rise in the rate in the year 2004 but in the years that followed there was a step by step decline. The second table gives the descriptive statistics

where we have an average of 24.07% for IRR, 5.75% for interest rates, 11.2% for inflation and 73.98 for exchange rates. IRR and Exchange rates recorded the highest deviations from the mean. The 91 day TBill and inflation deviations recorded almost similar deviations from the mean.

4.3 Correlation tests

This section illustrates the correlation tests between IRR as the dependent variable and interest rates, inflation and exchange rates as the independent variables. The results are illustrated in the table below.

Table 5: Test of significance

Significance (t value)	IRR	T. bills interest rates	Inflation	Exchange rate
IRR	1.000			
T. bills interest rates	-.554	1.000		
Inflation	-.230	-.079	1.000	
Exchange rate	.337	-.457(*)	-.088	1.000

The table above shows that while there is a significant relationship between all the variables investigated, they are in various directions and to different strengths. It can be seen that the IRR and interest rates have a negative relationship of -.554. If interest rates are high, then performance of the projects is affected. A glance at Table 3 shows this inverse relationship of the IRR with the T-Bill rates. When these rates are increase the IRR decreases and vice versa. Thus, the variations of the IRR are caused as a result of changes in the 91-TBill rates, a benchmark of Shelter Afrique's loan pricing. These rates affect the discounting factor which is the cost of capital for the borrower. The same relationship goes for IRR and inflation rates though it can be seen

though to a lesser magnitude. When inflation increases performance of Shelter Afrique funded housing projects decline. Interest rates have a weak (0.079) negative relationship with inflation and a negative (-0.457) relationship with exchange rates. The relationship between exchange rates and inflation is -0.088.

4.4 Test of significance

Test of significance was carried out to confirm the correlation test carried out. The results are illustrated in the table below:

Table 6: Test of significance

Significance (1 tailed)	IRR	T. bills interest rates	Inflation	Exchange rate
IRR	.	.156	.255	.309
T. bills interest rates	.156	.	.454	.151
Inflation	.255	.454	.	.484
Exchange rate	.309	.151	.484	.

Given that the lower the value of significance the stronger the relationship, we can see that IRR has the strongest relationship with first interest rates then inflation and finally exchange rates. Also given that the level of significance is fixed at 0.5 we can see that the relationship between the variables investigated are all significant in determining the performance of the various projects undertaken by Shelter Afrique.

4.5 Regression test

This section provides a summary of regression test statistics. This includes the R square and F test as tabulated below:

Table 7: Model Summary

Model	R	R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
overall	.621(a)	.385	4.816360948	.385	3.344	3	16	.046
Interest rates	.660	.436	2.115024708	.436	4.118	3	16	.024
Inflation	.354	.125	2.810151961	.125	.763	3	16	.531
Exchange rates	.478	.229	4.205311540	.229	1.581	3	16	.233

a Predictors: (Constant), Exchange rate, Inflation, T. bills interest rates

The coefficient of determination which is given by R squared gives a figure of 0.385 for the whole regression test. This means that 38.5% of the change in the projects performance (measured by IRR) is determined by the combination of interest rates, inflation and exchange rates. Individually the following equation can be written down.

$$Y = 0.436I_r + 0.125I_f + 0.229E_r$$

Where I_r is interest rates

I_f is inflation and

E_r is exchange rates

The significant f change confirms that IRR is determined more by interest rates than with either inflation rates or exchange rates.

4.6 Analysis of Variance

Analysis of variance (ANOVA) is a method of testing the null hypothesis that several group means are equal in the population, by comparing the sample variance estimated from the group means to that estimated within the groups. For this case the results are illustrated below:

Table 6: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	232.748	3	77.583	3.344	.046(a)
Residual	371.157	16	23.197		
Total	603.905	19			

a Predictors: (Constant), Exchange rate, Inflation, T. bills interest rates

b Dependent Variable: IRR

The One-Way ANOVA procedure produces a one-way analysis of variance for a quantitative dependent variable by a single factor (independent) variable. Analysis of variance is used to test the hypothesis that several means are equal. This technique is an extension of the two-sample t test. The F test and the significance test show that the relationship between IRR and interest rates, inflation and exchange rates is strong.

4.7 Coefficients

This last section provides the coefficients for the regression analysis as well as the t statistic.

Table 8: Coefficients

	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	95% Confidence Interval for B		Correlations		
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part
(Constant)	31.103	23.696		1.313	.208	-1271.950	1364.377			
T. bills interest rates	-1.191	.485	-.546	-2.453	.026	-33.252	30.237	-.573	-.517	-.446
Inflation	-.547	.406	-.268	-1.348	.196	-31.117	28.862	-.395	-.431	-.353
Exchange rate	.082	.286	.064	.287	.778	-16.080	16.058	.305	-.009	-.007

a Dependent Variable: IRR

The Paired-Samples T Test procedure compares the means of two variables for a single group. It computes the differences between values of the two variables for each case and tests whether the average differs from 0. This means that the t statistic measures not only the nature of the relationship but also the strength of the relationship. In this case we see a stronger relationship between IRR and interest rates at -2.453. This relationship though negative surpasses that between IRR and inflation at -1.348 and a much lower one between IRR and exchange rates at 0.287.

4.8 Interview Guide Responses

This section analyses challenges faced by IHFIs in Africa, specifically in Kenya obtained using primary data. It complements the secondary data. Primary data was collected through the use of an interview guide. The following results were obtained:

4.8.1 Inflation and Interest Rates

In year 2001, Shelter Afrique issued a medium term note on Kenya's capital markets. Investors were being paid at a floating rate of the 91 day TBill + 1. As depicted in Table 3 above, in the last 2 quarters of year 2003 the TBill rate had lows of 1.2% down from 7.4% at the beginning of the same year. This resulted in the bond investors becoming jittery because they were not getting good returns for their investment. Most financial institutions including Shelter Afrique were using the 91 TBill as a benchmark for pricing. A subsequent issue of a second medium term note in Kenya's capital markets resulted in the increase of returns for investors who insisted on fixed pricing. However, it was eventually agreed that their return would still be floating on the TBill but with an additional 25 basis points. During this period, as can be gleaned from Table 3, the 91 day TBill rate was relatively stable in year 2005 with an average of 8%, slumped down to as low as 6.1% in year 2006 and started regaining in year 2007 with highs of 7.3%.

Secondly, low interest rates made loan pricing complicated for Shelter Afrique. During this period, more so when the 91 TBill rate was low, clients whose loan pricing is on variable for the Kenya Shilling currency, depending on the movement of the 91 day TBill benchmark wanted their loan pricing revised to extremely low prices.

This was not possible. As a result, this impacted negatively on the volume of business since the Company maintained its pricing,

The volatile movement of the 91 day Kenya TBill rate prompted the Kenya Government to come up with a Central Bank Rate in 2006 as the new benchmark for interest rates. Shelter Afrique's loan pricing has however not changed and is still pegged to the 91 day TBill as one of the components in its base rate. Thus, the exposure to Kenya's economic volatile environment as regards interest rates still stands.

To manage the interest rate risk, the organization is faced with the challenge of limited development of derivatives in the Kenyan market. For example interest rate swaps are not attractive because local financial institutions take a calculated or short term view as a result of lack of degree of certainty in the market to assist pricing of such. Interest swaps are only available from 6 months to 1 year periods. Considering the nature of Shelter Afrique's business of lending for longer durations, they are not a suitable option.

4.8.2 Foreign Exchange Risk

Shelter Afrique gives some loans in Kenya Shillings while its reporting is in US Dollars. Thus the company is exposed to foreign exchange risk. From Table 3 above foreign exchange rates of the US Dollar to the Kenya Shilling for the 5 years period under review has lows of 64.7 and highs of 80. When the rate is low, the company enjoys foreign exchange gains on translating its Kenya Shilling cash flows to US Dollar for reporting purposes and vice versa. No forecasting methods were used

during this period. However, to manage this risk, the company relied on matching the Kenya Shilling assets to the liabilities of the same currency. This is referred to as implied hedging. The Company also borrowed locally from Kenya's capital market to on-lend to its Kenyan clients who requested for the local currency.

Currency swaps were also an option but were not used due to limitations of tenure of the swaps. The Company's requirement for this type of foreign exchange risk management is for a minimum of 5 years owing to the nature of its operations while local financial institutions can only offer 1 year currency swaps.

4.8.3 Financing of Operations

Financing or borrowing for the company posed challenges due to the following reasons: Firstly, borrowing offshore had the limitation brought about as a result of currency preference. For example, the company cannot raise the Kenya Shilling in Europe or USA capital markets. For US Dollar – for Kenyan clients who borrow in this currency – the organization borrowed from Western financial institutions, used its shareholder capital which is denominated in US Dollars. However, the organization was faced with the challenge of not having a “recognized” international recognized rating. Shelter Afrique currently has a local as well as West Africa CFAF region rating from Global Company Rating (GCR) of South Africa. GCR has also given the company an international rating but offshore investors prefer “weighty” and well known international rating companies before they place their investments in such institutions. Plans were underway to get a “weighty” rating from western rating agencies. Thus, the company faces the challenge of incurring more cost to get another rating.

Secondly, so far Shelter Afrique has done two medium term note issues which were priced as follows:

2001: Kenya 91 day TB + 1 (floating)

2005: Kenya 91 day TB + 1.25 (floating)

As discussed in the above subsection on interest rates, the second medium term note issue's rate was slightly higher due to the volatile Treasury Bill rate that was still a benchmark. In order to attract investors to take up the bond the company had to add a "premium" of .25%. In fact, the clients were requesting for a 9% fixed rate as a result of these fluctuations.

4.8.4 Political Risk

Major factors considered by Shelter Afrique under political risk included war, violence, restrictions of movement of foreign exchange and government "volatility." The company used its own subjective assessment to categorize political risk in the countries where it operated. The categories ranged from low, medium and high. After such assessments, the management of the Company decided whether to invest in a particular country or not. Medium or high rating required a political insurance cover borne by the borrower. If there were restrictions of foreign exchange repatriation, the organization opened an offshore escrow account with the developer in a country that did not have such restrictions. During the period under review, Kenya's political climate was generally conducive.

4.8.5 Regulatory and Legislative Framework

Regarding Kenya's Regulatory and legislation framework, the only shortcoming during the period under review was the bureaucracy in lands office whereby it takes too long to register legal documents. During the period under review, Government legislation such as banning of cutting of trees from forests, though positive, led to increase of costs of timber which is a raw material of construction. This resulted to higher costs than anticipated thus enhancing the credit risk. Land titling on the other hand has been good since Shelter Afrique's commencement of operations in Kenya in the early 80s.

In addition the legislative and regulatory framework as regard foreclosures in the Kenyan environment has been satisfactory. Over the period of its operations Shelter Afrique has had 2 successful foreclosures in Kenya.

CHAPTER FIVE

5.0 SUMMARY OF FINDINGS, INTERPRETATION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

From the analysis and data collected the foregoing discussions, conclusions and recommendations were made based on the objectives of the study.

5.2 Summary of Findings

The objectives of the study were to find out the challenges faced by Shelter Afrique as an international housing finance institution as well as the relationship of housing project performance with interest rates, inflation and foreign exchange risk. The challenges experienced by Shelter Afrique included volatile interest rates that resulted in difficulty of not only pricing loans for its clientele but came as a challenge regarding investor returns to their investment after taking Shelter Afrique bonds. However, it is interesting to note that the relationship between interest rates and inflation was found to be slightly negative at (-0.079). This does not agree with the view by (UN Habitat, 1991) and Solnik (2000) that the levels of variability of inflation are the most readily observed influence on the risk elements that contribute to the market rate of interest. However, the findings are in agreement with Solnik (2000) observation that, inflation and interest rates can differ markedly which implies that the currencies exchange rates will not stay fixed over time. This trend was observed during the period under review with variable Kenya Shilling exchange rates to the US Dollar being recorded with highs of Kshs.80 and lows of Kshs.61 in a span

of 5 years. Despite the existence of derivatives in the Kenyan market to manage interest rate and exchange rate risks, it was found that they are not attractive due to the short tenures offered of one year or less.

Borrowing or financing for such institutions also pose as a challenge resulting from limitations of unavailability of local rating agencies, "mistrust" by western investors of fairly unknown rating agencies in Africa. Weak African currencies also pose as a challenge since they can only be obtained in a local market as opposed having a variety of countries to choose from as is the case for the major currencies.

Another notable challenge was the Kenya 91 day TBill being used as a benchmark for pricing of loans as well as investor returns for issued bonds. Due to its volatility it becomes a difficult benchmark to base decisions on. This is in agreement with Gottschalk (2003) view that in most developing countries, the capital markets are more vulnerable to shocks and manipulative actions. Credit risk is one of the biggest challenges that face housing finance institutions. This risk is even exacerbated in unstable economic environments. The study reveals the difficulties in pricing of loans as a result of changes in the economic environment even forcing the Kenyan Government to come up with a regulated Central Bank Rate. The study was also in agreement with Buckley (2000), Clark (2002) and Sharan (2001) regarding political risk definition, of which there seems to be no consensus. In this study Shelter Afrique considered war, violence, restrictions of movement of foreign exchange and government "volatility" as political risk. Its measurement was done subjectively, quite in line with Clark (2002) observation that measurement of political risk is complex. To manage it, the company takes political insurance.

Providing housing finance in a developing country such as Kenya was also found to be a challenge owing to Government legislation and structures in place in terms of urban planning and management and economic empowerment of the citizens. This agrees with Sa-Aadu's (2004) and Sacerdoti (2005) who observed the need to have structures in place that would promote housing provision and financing thereof.

5.3 Conclusion

As an international housing finance institution, Shelter Afrique also faced the challenge also of relying on third parties for information on credit worthiness of its clientele since it is not a deposit taking institution. Closing of forests by the government, though a positive measure, limited the supply of timber leading to increased costs and thus enhanced credit risk. In addition, the rather slow registering of titles process with the relevant authorities also poses as a challenge to its operations. This is because a client can only repay Shelter Afrique once he receives payments from house buyers. However, before this is done, mortgage financing institutions require the title to the property which has first to be registered at the Lands Ministry. In this case, credit risk is enhanced because Shelter Afrique client cannot pay back what they owe and so the interest as well and penalty payments accrue.

Regarding performance of housing projects funded by the company, it was found that there was a strong negative relationship between Internal Rate of Return (IRR) of a housing project and interest rates. The same relationship went for IRR and inflation rates though it was not as strong as with respect to exchange rates where a weak positive relationship was obtained. It was thus concluded that IRR has the strongest relationship with first interest rates then inflation and finally with exchange rates.

While carrying out regression tests it was found out that 38.5% of the change in the projects performance (measured by IRR) was determined by the combination of interest rates, inflation and exchange rates. This was further supported by t test and F test.

5.3 Conclusion

International housing finance institutions in developing countries such as Kenya face a number of challenges in their operations which stem from the “unstable” or volatile economic environment and the complexities that come with it. country risk refers to all aspects of a country’s economic, financial, social and political organization as well as its geographic location and strategic importance (Clark, 2002). This in turn affects interest rates, foreign exchange movements and inflation that have direct impact not only on an international housing finance institution but also the performance of its clientele housing projects. The levels and variability of inflation are the most readily observed influence on the risk elements that contribute to the market rate of interest. However, this does not necessarily hold true in all instances as revealed by this study. Foreign exchange risk arises mainly because different nations use different currencies that allow each nation some independence in setting its national interest rate and monetary policies. Thus, inflation rates and interest rates can differ markedly across countries, which, implies that the currencies exchange rates will not stay fixed over time.

Another notable challenge for international financial institutions is in the financing of its operational activities. International firms may wish to raise funds locally but due to regulatory or even under development of a country’s capital markets, this may not be

easy. However Kenya's capital markets were viewed as being satisfactory. Other challenges include the credit risk which is the likelihood that a borrower would be unable to meet their repayment obligation. Two, we have interest risk – value of the firm in today's interest rate environment and the sensitivity of that value to changes in interest rates; price risk which arises from changes in the value of the portfolios of financial instruments as a result of market dealing and position taking activities in interest rates, forex, equity and commodity markets; liquidity risk – the firms inability to meet its obligations when they are due; compliance risk – non conformance with laws, rules, regulations, prescribed or ethical standards and strategic risks – risks as a result of adverse business decisions or improper implementation of those decisions; reputation risks – negative public opinion as a result of litigation issues, financial loss, or damage to reputation. The biggest challenge of an international housing financing company is to learn how to manage these risks.

5.4 Limitations of the Study

Care must be taken to generalize the results of this study as there were some limitations. First, this study was a case study and therefore a specific company was used as a "guinea pig" for the research. In this respect the challenges faced by Shelter Afrique may not necessarily be representative of all international housing finance institutions in Kenya or Africa as a whole. There is also the limitation of using Internal Rate of Return to measure performance of a project. A potential shortcoming of using this method was that it was assumed that the cashflows would remain constant over the period under review. Any changes in costs as an outflow were not considered.

5.5 Recommendation

To the Managers and Owners of international housing finance institutions

It is recommended that any IHFI wishing to carry out its business in Africa should consider respective countries on a case by case basis and should not generalise on what challenges to expect. Most African countries experience volatile macroeconomic environments that do not render themselves to easy generalizations or necessarily follow fundamentals. It would therefore be in order for any IHFI to take time to carry out due diligence on the target country risk first, explore the various options of managing all country risk factors and constantly monitor the macroeconomic environment. Some of the management techniques such as interest rate or foreign exchange swaps are not yet developed in the African market implying that traditional methods such as balance sheet hedging would be appropriate. An IHFI should also explore its options of financing activities before doing business in SSA. Study any restrictions on borrowing and the level of development of the capital markets in the country. Do they suit the firms needs?

5.6 Further study

The current research was focused on one company only, Shelter Afrique. Shelter Afrique is a major IHFI with operations in the African region. In this respect, future research could be directed in carrying out a survey on challenges faced by housing finance institutions in general, whether local or international.

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Appendix 1: Introductory Letter

Date :

Shelter Afrique

PO Box 41479 GPO

NAIROBI

Dear respondent,

RE: CASE STUDY OF SHELTER AFRIQUE

I am currently pursuing a degree of Master of Business Administration at the University of Nairobi. As part of the requirement for completion of this course, a student is required to conduct a research study. My research question is as follows: What are the challenges faced by [international] housing finance institutions operating in Nairobi? The study seeks to answer this question. The research design is a case study of Shelter Afrique, an international housing finance institution headquartered in Nairobi with operations in 42 African countries.

In view of the responsibilities and experience held in this company, you have been selected as one of the respondents to this interview guide. The information collected will strictly be used for academic purposes and will be treated in strict confidence. A copy of the research project will be made available to you on request.

If there are any issues that require clarification, kindly do not hesitate to notify the researcher (Elizabeth Lwali) at her workstation or on cell phone number 0722 340032 or e-mail: lwalikanny@yahoo.com

Your cooperation and assistance will be highly appreciated.

Yours faithfully

E. LWALI

Appendix 2: INTERVIEW GUIDE

The following are issues to be tackled by the respondents who have been selected through purposive sampling:

Management decisions/reaction to Kenya's Economic Environment

INTERVIEW GUIDE

The following are issues to be tackled by the respondents who have been selected through purposive sampling:

Management decisions/reaction to Kenya's Economic Environment

A) Director of Finance

Focus questions: International Housing Finance Challenges & their Management

1) Interest rates, inflation rate & foreign exchange

- i. Academic theory states that volatile and unpredictable environments increases a country's inflation which in turn affect interest rates and exchange rates, in your view over the past five years (2003-2007) how have these factors affected Shelter Afrique? If negatively, what was management's response?
- ii. Considering the organizations reporting currency is in US Dollars, how does shelter Afrique measure, forecast and manage the foreign exchange risk in the Kenyan market?
- iii. In the past five years (2003 – 2007) has the credit risk been enhanced in the Kenyan market as a result of its economic environment?

2) Borrowing

From Shelter Afrique's literature, the company, since year 2000 borrows from the Kenya Capital Markets by placing bonds

- i. Are there specific conditions that an international organization has to meet that are not a prerequisite for local housing financial institutions before borrowing from the capital markets?
- ii. At what rates do you offer your bonds to the investors? What's the basis of offering these rates?
- iii. How has the Kenyan economic environment affected your cost of borrowing?

- iv. Do you borrow offshore? If yes, are there particular constraints in borrowing locally as compared to borrowing offshore?

3) **Housing Finance**

- i. How does Shelter Afrique manage the following risks?
 - a. Interest risk: sensitivity to changes in interest rates
 - b. Price risk: changes in the value of the portfolios of financial instruments as a result of market dealing and position taking activities in interest rates, forex, equity or commodity markets
 - c. Liquidity risk: firm's inability to meet its obligations when they are due
 - d. Credit risk: likelihood that a borrower would be unable to meet repayment obligation

4) **Other**

- i. In its shareholding, Shelter Afrique has 42 member countries with other 3 institutions, does Shelter Afrique manage its exposure to the various currencies in countries where it lends? If so, how?
- ii. In the past 5 years (2003 – 2007) are there Government policies/regulations that were implemented that had major negative financial implications to the institutions?
- iii. What factors does Shelter Afrique consider before accepting to lend in a local currency such as the Kenya Shilling?
- iv. What are some of the major factors that an international housing finance institution wishing to invest in Kenya should be concerned with?

B. **Director of Operations**

Focus questions: Housing Finance

- i. There is a backlog of housing in the Kenyan market with the government estimating an annual demand of 150,000 against the current supply of 35,000 units, what are the major challenges constraining the government as well as private financial institutions from meeting this demand?
- ii. What steps can the government, in addition to the actions it is taking presently, do to ensure that this demand is met?
- iii. In the Kenyan loan portfolio between the period 2003 – 2007, have there been non-performing loans? If so, what are the reasons attributable to this?
- iv. Have there been foreclosures for non-performing loans in Kenya during this period?

- v. What are the major challenges faced by an international housing finance institution that are not faced by local housing finance institutions as regards housing finance provision?
- vi. From your experience working at Shelter Afrique, how is the legal and regulatory framework regarding aspects such as land supply, titling etc in Kenya?
- vii. Which reasons do clients give for opting to borrow in US Dollars as opposed to the Kenya shilling considering the exchange risk exposure?
- viii. To your knowledge, how many international housing finance institutions offer their services in Kenya?

C) Team Leader Legal Department

Focus: Political and Legal Framework

- i. How has Kenya fared in its political climate specifically for those issues that would affect Shelter Afrique's business between years 2003 - 2007
- ii. Does Shelter Afrique analyse/measure political risk? If so, how?
- iii. If the response to (ii) above is in the affirmative, how is the measure obtained used by the Management of the company?
- iv. As a result of the current post election skirmishes, has there been changes in Kenya's classification in terms of political risk
- v. How has Kenya's legal framework been between years 2003 - 2007 pertaining to those issues that affect Shelter Afrique's business?
- vi. Has the company had foreclosures in the Kenyan market in the past 5 years? If yes, how, in terms of ease, was it handled by the legal authorities
- vii. What are the major challenges in the Kenyan legal framework as regards housing finance?
- viii. In the past 5 years (2003-2007), has there been a government legislation that has negatively impacted the company's business/performance? If so, how did Shelter Afrique react to it?
- ix. What are the major legal/regulatory challenges for an international housing finance institution wishing to establish its business in Kenya?

Appendix 3

SHELTER AFRIQUE KENYAN FUNDED PROJECTS (YEAR 2003 – 2005)

No.	PROJECT NAME	APPROVAL DATE	LOAN IN US \$
1	Riara woods	01-Sep-04	500,000.00
2	Homeplus	01-Sep-04	500,000.00
3	Magnolia	01-Jun-05	542,857.00
4	Hatheru Rd	14-Jun-05	921,053.00
5	Watford	01-Aug-05	542,857.00
6	Almond	01-Feb-06	500,000.00
7	Peers	01-Feb-06	500,000.00
8	Clermont	30-May-06	500,000.00
9	Consummate	01-Dec-04	571,429.00
10	Cornerstone	01-Apr-05	500,000.00
11	Lynmarie	01-Jun-05	500,000.00
12	Lang'ata House	14-Jun-05	915,033.00
13	KMA Bamboo	14-Jun-05	1,973,684.00
14	Waterfront	05-Dec-05	1,714,286.00
15	Oakpark	02-Oct-06	500,000.00
16	Homeplus	20-Nov-06	780,822.00
17	Platinum	24-Aug-05	500,000.00
18	Sash	01-Jul-02	314,286.00
18	Kenton	21-Mar-05	1,000,000.00
19	Amanah	02-May-05	500,000.00
20	Lavingtone	05-Dec-05	939,597.00
21	hostels	26-Mar-07	1,114,286.00
22	Bandari	01-Oct-07	2,500,000.00
23	Sawad	03-Dec-07	2,018,000.00
24	Riara Rd	24-Mar-03	550,000.00
25	Gardens	01-Apr-03	450,000.00
26	Mbaazi	01-Sep-03	300,000.00
27	Dennis	01-Oct-03	450,000.00
28	Laikipia Villas	24-Nov-03	700,000.00
29	Tajriv	22-Mar-04	1,250,000.00
30	Riara downs	08-Jun-04	1,000,000.00
31	Kayahwe	01-Aug-04	500,000.00

No.	PROJECT NAME	APPROVAL DATE	LOAN IN US \$
32	Hatheru	07-Feb-05	500,000.00
33	Oak	07-Feb-05	500,000.00
34	kispark	01-Mar-05	300,000.00
35	Jif	14-Mar-05	500,000.00
36	White	01-Jun-05	350,000.00
37	Oloitok	14-Jun-05	1,250,000.00
38	Greville	20-Mar-06	1,750,000.00
39	Metra	28-Sep-06	788,732.00
40	Cafs	02-Oct-06	300,000.00
41	Bellapple	19-Jan-07	500,000.00
42	tajemba	26-Mar-07	1,650,000.00

1	Congo		0.19%
2	Congo		1.34%
3	Democratic Republic of Congo		1.55%
4	DRC		0.78%
5	Gabon		3.12%
6	Gambia		0.78%
7	Ghana		1.01%
8	Guinea Bissau		0.85%
9	Guinea Equatorial		0.01%
10	Kenya		1.55%
11	Kenya		1.34%
12	Kenya		0.85%
13	Madagascar		0.78%
14	Madagascar		1.34%
15	Madagascar		2.28%
16	Madagascar		0.14%
17	Madagascar		0.30%
18	Madagascar		1.13%
19	Namibia		0.81%
20	Niger		0.78%
21	Nigeria		13.79%
22	Rwanda		0.78%
23	Sao Tome & Principe		0.14%
24	Senegal		3.50%
25	Seychelles		0.19%
26	Sierra Leone		0.19%
27	Somalia		0.19%
28	Swaziland		0.19%
29	Tanzania		0.19%
30	Togo		0.42%
31	Tunisia		0.19%
32	Uganda		0.19%
33	Zambia		0.19%
34	Zimbabwe		0.19%
35	World Development Bank		12.87%
36	World Bank		1.34%

**Appendix 4: Shelter Afrique Current Shareholding (paid up) as
at December 31 2007**

	COUNTRY / INSTITUTION	%AGE Shares Alloted
1	Algeria	8.03%
2	Benin	0.79%
3	Botswana	2.17%
4	Burkina Faso	2.26%
5	Burundi	0.78%
6	Cameroon	4.27%
7	Cape Verde	0.04%
8	Central Afr. Rep	0.41%
9	Chad	0.19%
10	Congo	1.34%
11	Democratic Republic of Congo	1.55%
12	Djibouti	0.78%
13	Gabon	3.32%
14	Gambia	0.78%
15	Guinea	1.06%
16	Guinea Bissau	0.06%
17	Guinea Equatorial	0.04%
18	Kenya	15.02%
19	Lesotho	1.29%
20	Liberia	0.80%
21	Madagascar	0.78%
22	Malawi	1.29%
23	Mali	2.35%
24	Mauritania	0.14%
25	Mauritius	0.30%
26	Morocco	1.13%
27	Namibia	0.81%
28	Niger	0.78%
29	Nigeria	13.79%
30	Rwanda	0.78%
31	Sao Tome & Principe	0.04%
32	Senegal	3.55%
33	Seychelles	0.78%
34	Sierra Leone	0.18%
35	Somalia	0.03%
36	Swaziland	0.37%
37	Tanzania	0.78%
38	Togo	0.42%
39	Tunisia	0.78%
40	Uganda	1.29%
41	Zambia	5.06%
42	Zimbabwe	0.14%
		80.55%
	African Development bank	12.93%
	Africa Reinsurance Corp.	2.64%
	ACTIS	3.88%