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African Housing Dynamics: Lessons from the Kenyan Market

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Outline

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Key points

In this brief, a review of the Kenyan housing market across 5 dimensions is conducted. These are (i) demand and supply gap, (ii) access to finance, (iii) building technologies and related costs, (iv) real estate developers capacity, and (v) land, property and land off-site trunk infrastructure. The analysis conducted draws out the key impediments explaining housing dynamics and provides a backdrop against which private sector participation in the sector can be framed. Stemming from this, key conclusions and recommendations include:

- Use of alternative building solutions: the market needs to be educated to accept different building solutions which are more suitable cost-wise to reaching medium/lower income segments. For instance greater investments into pre-fabricated houses can be more cost effective, and drastically reduce construction time.
- Local government support: to allow for the effective supply of off-site infrastructure and land servicing (i.e. development of trunk infrastructure, water & sanitation, etc.) needed to support real estate development.
- Adequate funding system to facilitate mortgage provision: the banking system is still not in a position to offer the long-term finance that the housing sector needed. Beyond the provision of long-term mortgages, alternative financing schemes such as "lease-to-own" arrangements in partnership with local financial institutions could be deployed for instance.
- Local bank capacity building: to strengthen mortgage underwriting skills and instigate competition in the sector. This should also include microfinance providers with tailored products for the housing sector, in particular given the role that such institutions can have with regards to home improvements loans. A key challenge is the banking of those in the informal sector.
- Equity provision for developers: this will limit excessive debt leveraging of real estate developments. Private equity funds can be an interesting avenue to be pursued.
- Technical assistance: to both developers and contractors to increase their capacity to deliver housing units in larger quantities so as to benefit from economies of scale.

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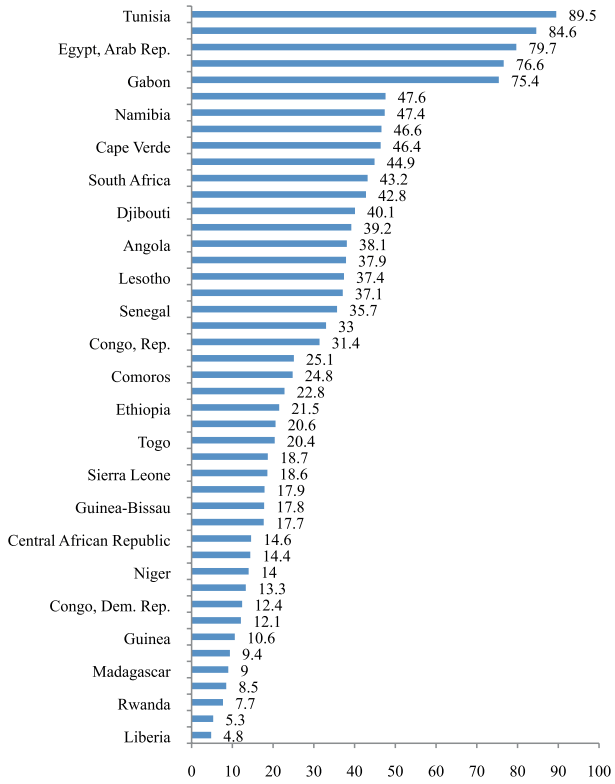
1 | Introduction

The African continent is booming. Alongside the strong economic growth rates registered in the past decades, empirical evidence has shown that the African middle class has been growing too. According to recent research by the African Development Bank, the continent's middle class has reached 34.3% of the population in 2010, up from 26.2% in 1980 (AfDB 2011)[2]. In Kenya, it encompasses 44.9% of the population (see figure 1). This phenomenon has been accompanied by rapid urbanisation and strong growth in consumption expenditure and demand for certain types of goods and services. Housing demand has not, and will not, remain idle to these changes.

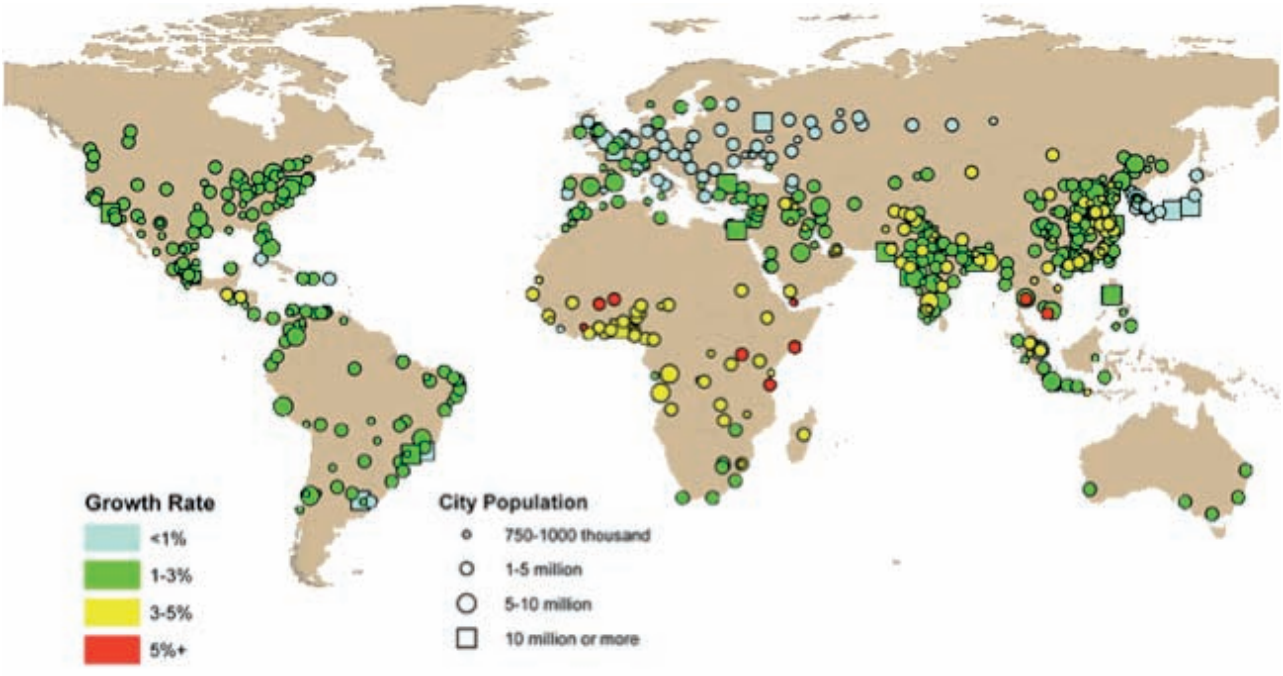
As the middle class grows, so do cities which today host one out of four Africans. UN-Habitat estimates that African cities become home to over 40,000 people every day (UN-Habitat 2011). Map 1 shows projected growth rates of urban agglomerations across the world. Most of the world's largest cities with population growth rates above 5% are in Africa. Such trends foresee immense strains on affordable urban housing, and exert a strong push on demand for it.

Figure 1 Percentage of national population earning USD 2 to USD 20 per day



Source: AfDB 2011

Map 1 Growth rates of urban agglomerations, 2011-2025



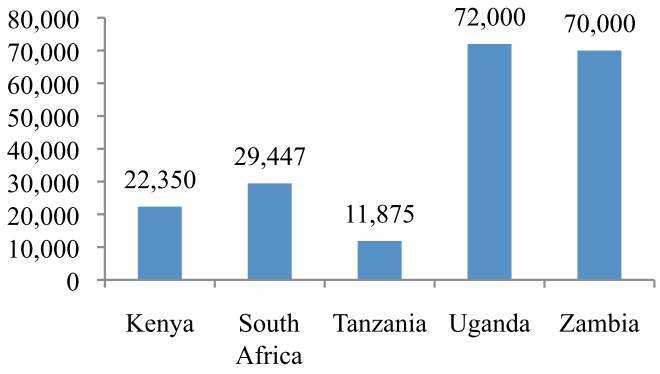
Source: United Nations 2012

[2] The middle class is defined as the share of population with a per capita daily consumption of USD2 to USD20 in 2005 purchasing power parity terms.

Across the continent, housing is more than often divided in between the formal-built and the informal-built types. The former is the focus on this brief, and refers to housing units built by developers, on serviced land, with property titles. The latter usually refers to housing built by individuals, often in an incremental manner, on land which is not always serviced and where titles are not always available.

According to the Finscope survey ran in 2009, in Kenya one third of the houses where inherited and only 1.5% of house owners acquired it through credit. In Nairobi, over 70% of the houses are permanent but that figure drops to only 54% in coastal regions. With regards to house types, traditional ones are prevalent in the North-East (55% of total houses), but much less so on the coast and in large cities (23%).

Figure 2 Price of the cheapest, newly built house by a formal developer (in USD)



Source: CAHF 2012

Price-wise, according to the Centre for Affordable Housing Finance in Africa, the cheapest new-built in Kenya costs USD 22,350 in 2012, with prices being much higher in Nairobi and other large cities (see section 3). This is near midrange when compared to other East and Southern African countries as shown in Figure 2. Continent-wise, a developer's survey ran by the Center for Affordable Housing Finance (2012) in Africa suggested that house prices range from USD 10,000 in Mali to over USD 100,000 in the Gambia, or even over USD 200,000 in Kinshasa, DRC (CAHF 2012). In Kenya, put against average earnings the price noted in figure 2 can be considered as high, and can only be afforded by the top income earners. This is shown for instance when prices are compared against GDP per capita or the USD 1.25 per day poverty measure (figure 5 and 6 in annex).

Beyond affordability, housing has always been a contentious issue on the continent. Closely linked to land rights, associated with basic needs of the population, its public good nature and universal reach has given grounds to government intervention under the form of social housing projects. This aspect of housing has drawn much of the literature on the topic, which by-and-large puts housing as a social welfare problem rather than an economic growth opportunity (CAHF 2011).

While not intending to minimise the social aspect of housing and the public intervention case for it, it is also important to understand what the private sector can do - on its own - to satisfy housing needs in African countries, and in particular to expand supply of housing to middle and low income earners. In order to shed light on this issue, a series of key elements determining formal housing market dynamics are laid out in this brief using Kenya as a case study. These elements include:

- Demand and supply gap: The Kenyan market – as with many other countries in Africa – is characterised by a large demand and a chronic undersupply of formal housing. This situation has a great impact on prices.
- Building costs: market expectations about building solutions are important and can drive costs upwards.
- Market stakeholder structure: There are only a handful of private developers in Kenya that can afford to invest into medium to large scale developments of 200 units and above for middle to low income segments. The key obstacles for the growth of a developer's class reside in: (i) lack of know-how in order to build and market large scale real estate developments, and (ii) difficulty in raising adequate finance.
- Access to finance: This element is two-faceted. First there is the issue of access to finance for developers. In this respect, most housing is financed primarily through debt. Considering the time needed for construction, potential delays as well as high and fluctuating interest rates, the cost of debt can weight negatively on the total financing structure of developments. In addition, access to equity is in short supply making financing thornier as it becomes difficult for developers to become eligible for loans.

  Second, access to finance is also a constraint for buyers. Mortgage penetration rates are very low across Africa. In Kenya, it reaches 2.5% of outstanding mortgages to GDP. Although high by continental standards, it is short of leading African countries such as South Africa and Namibia where outstanding mortgages to

GDP stand at 26.4% and 19.6% respectively (World Bank 2011; CAHF 2012).

- Land infrastructure and property rights: land tenure and registration regulations are paramount when it comes to drawing private developers in the market. Similarly, so is the provision of off-site infrastructure and land servicing. The lack of master planning undermines the sustainability of housing developments, paving the way for informal settlements which in turn put pressure on existing infrastructure such as sewage etc. In Kenya, these areas are of concern due to regulatory complexities.

Data and information for each of these elements has been collected via Finscope surveys, the Centre for Affordable Finance in Africa, as well as through a field observations from an informal survey of developers and information gathered through meetings with relevant authorities/stakeholders including the National Housing Corporation in Kenya, Shelter Afrique, Housing Finance of Kenya, and UN-Habitat.

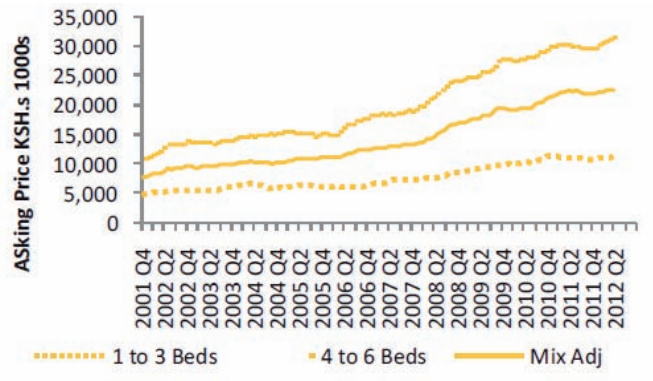
2 | Demand and Supply

As of 2012, Kenyan population growth is estimated at 4.2% per annum. Based on this growth and the rate of urban migration, the yearly annual increase in demand for housing in Kenya is of 206 000 units annually of which 82 000 in urban areas. In 2011, the ministry of housing estimated that the formal supply of houses to the market reached 50 000 creating a 156 000 shortfall which added up to the 2 million units existing backlog. In 2012, it is estimated that further 85 000 units were also added to the backlog (CAFA 2011; CAHF 2012).

The first implication of this shortfall in formal housing is that populations that are not catered for (or could not afford to given prevailing prices) have to turn towards self-built and informal housing. In urban areas this translates into the growth of slums. According to the Kenyan 2009 population census, over 30% of the country's population lives in slums. In Nairobi alone, it was estimated that over 1 million out of a city population of 3.2 million lived in slums, with only 3% living in a house with permanent walls, water and electricity (World Bank 2011).

The second implication of a shortfall in supply is the continuous increase in prices. Figure 3 shows average asking prices across the country form the period Q4 2001 to Q2 2012. Over that time-span, average prices for 1 to 3 bedrooms rose by a factor of 2 from just below Ksh 5 million (USD 60,000 at 2001 rates) to Ksh 10 million (USD 117,000 at 2012 rates). Prices for units with 4 to 6 bedrooms rose from about Ksh 10 million to Ksh 31 million (USD 362,000 at 2012 rates).

Figure 3 Average asking price - Kenyan property



Source: HassConsult 2012a

Such increases were also noted on site. Table 1 exhibits price increases for houses build by a developer in the outskirts of Nairobi. Given limited offer, pressures from buyers lead to large price hikes over the construction period. In between the beginning and the end of construction lasting on average 18 months, house prices increased by 41%. For developers, this presents an interesting dilemma: engaging in pre -sales would in effect lead to forgone income as they would be better of holding on to them for a longer period. At the same time pre-sales are needed in order to secure enough cash-flow to cover any on-going debts (see section 4). For buyers, such increases present profit-making opportunities, in particular for speculators with enough cash to buy on pre-sales and flip the property either at the end of the construction period (where completion risks are null), or a couple of years later where prices have more than trebled (growing at rates well above inflation). For instance, in the case of development A, over 7 years, units gained 200% in value.

Given the state of supply and demand, it appears very difficult at present for the private sector to provide adequate housing for lower-middle or low income households. To date, the most notable attempt to bring in the private sector is the slum upgrading programme in the Mavoko district (see box 1).

Table 1 Real Estate development in Kenya - price changes over time

Development name	Number of Units	Year of completion	House type	Off-plan prices (USD)	Prices on completion (USD) - or pre-sale prices for unfinished houses	Off plan vs. Completion price change	Current prices (USD)	Off plan vs. current price change
A	20	2005	3 bed	59 880	95 808	60%	179 641	200%
B	15	2007	5 bed	155 689	203 593	31%	455 090	192%
C	40	2007	2 bed	29 940	33 533	12%	77 844	160%
		2007	3 bed	35 928	41 916	17%	89 820	150%
D	200	2012	3 bed	89 222	113 772	28%	113 772	28%
		2012	4 bed	111 377	143 713	29%	143 713	29%
E	48	2013	1 bed	89 820	143 713	60%	101 796	13%
		2013	2 bed	107 784	179 641	67%	119 760	11%

Source: Shelter Afrique Information to the authors 2012, AfDB Informal Survey of Developers 2012.

Initiatives based on regulatory price caps for housing were also thought of in order to broaden the reach of population targeted to include lower middle income households. However it appears that any upper limit caps on given price points would put a shield against speculation at the level of the first sell, but would not prevent first buyers to sell the property at a higher price later on since they would not need to abide to the band/cap. Other things being equal, this would entice investors that hold liquidity or have easier access to finance to buy properties and make profits by flipping them based on this artificial cap.

The implications of the picture drawn so far is that an increase in housing supply is paramount in order to extend home ownership. At prevailing rates, affordability remains a key constrain. In conjunction with public sector policies outlined above, several issues must be tackle with the objective of improving stakeholder capacity to ease the supply and demand side constraints, of which those presented in the following sections.

3 | What does building a house cost?

Dwellings can be built in many configurations, from detached houses to high-rising apartments. Each of the housing types has special requirements in terms of special planning and implications on building costs. For developers, the choice of the building solutions is determinant when it comes to the targeted market. For instance, high-end products tend to be built on more expensive land.

Box 1 Home improvement initiatives in Kenya

The Kenya slum upgrading programme: in 2003, the Kenyan Government and UN-HABITAT entered into a Memorandum of Understanding to upgrade slums and informal settlements starting with selected areas in Nairobi. After some delays in implementation, the project has been turned into a Public-Private Partnership arrangement, with Shelter Afrique in the development manager role as of 2013. A special purpose vehicle is to be set up to implement the project with a financial structure that includes: the provision of land as well as the supply of infrastructure by the government, the use of debt to finance construction costs while end-user finance shall be provided on a subsidized basis by donors (e.g. Agence Française de Développement) through established microfinance institutions for the buyers.

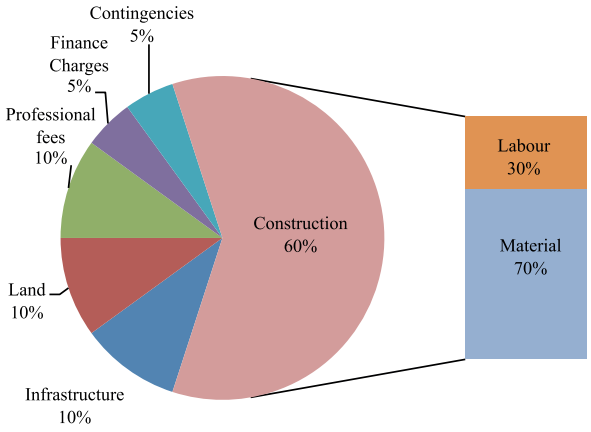
Civil Servant Housing: Since 2004, the Government of Kenya has been running the Civil Servants Housing Scheme Fund which aims at (i) providing housing loan facilities to civil servants for the purposes of either purchasing or constructing a residential house, (ii) developing housing units for sale and for rental by civil servants, and (iii) raising funds for the implementation of the objectives stated under (i) and (ii).

Kenya Informal Settlements Improvement Project: Spearheaded by the World Bank, the programme aims at improving conditions in informal settlements. Activities include enhancing tenure security and improving off-site infrastructure. Its first component focuses on strengthening institutions and program management through capacity building of relevant ministries, and the selected municipalities. The second supports on-going efforts to reinforce planning and tenure security in urban informal settlements. The third component entails investments in infrastructure and service delivery. A final pillar supports the development of options that facilitate the delivery of infrastructure services, land, and housing.

Sources: Shelter Afrique 2013, Kenya Ministry of Housing (www.housing.go.ke).

Through the survey of developers met, as well as through historical data supplied by Shelter Afrique, it appears that the typical cost structure for a single unit across housing typologies in Kenya is roughly as follows: 60% of a unit's cost in construction (of which 70% in materials and 30% in labour), 10% in infrastructure, 10% in professional fees (architects, engineers, required public permits etc…), 5% in financing and 5% contingency. Such a breakdown is based on prevailing market preferences from buyers: cement built, 1 to 3 bedroom houses (detached or semi-detached) of 80 m2 to 100 m2. With regards to construction materials, all basic hard supplies such as steel, cement, or plaster are produced locally, although production does not always meet local demand. Fitting such as tiles, kitchenware and so forth are usually imported. Building costs per square meter data gathered from the Institute of Quantity Surveyors of Kenya are presented in table 2.

Figure 4 Formal housing cost structure in Kenya



Source: AfDB Informal Survey of Developers 2012, Shelter Afrique Information to the Authors 2012.

Table 2 Building cost per m2 (USD)

	Central region (incl. Nairobi)	Coastal region (incl. Mumbasa)	Western Region	Unweighted average across regions
High class single units (maisonettes)	479	515	515	503
High class high rise flats	539	515	515	523
Low cost, low rise flats	371	335	335	347
Low cost, high rise flats	419	407	407	411
Site and service scheme	204	228	228	220
Rates are general rates for building works excluding site works. Care should be taken in using the prices without considering elements such as location, specification of building materials, wall to floor ratio, floor to ceiling heights, site topography, type of joinery fittings and quality of electrical and mechanical installations. Data gathered from the Institute of Quantity Surveyors of Kenya for December 2011. Table initially in Kenyan Shillings. Exchange rate used: KSH 83.5 to the USD.				

Source: Institute of Quantity Surveyors of Kenya (2011).

Based on these, a low cost, low rise flat of 50m2 in Nairobi can amount to roughly USD 18,000 just in building costs (see table 5 in annex), which as noted in figure 4 would represent 60% of total costs. Adding 40% to that amount to account for other development costs would bring the price up to USD 26,000 - excluding the developer's margin. For a low-cost, high-rise flat in Nairobi costs would amount to USD 29 000 (excluding developer's margins), while high-end maisonettes would cost USD 33 500 (see table 6 in annex).

The figures highlight that it is difficult from a cost perspective for the private sector to deliver units at a charge that would match incomes of most of the population. They also point out that housing types can matter, as well as whether housing is formal or informal. Table 2 refers to buildings undertaken by formal developers in which concrete or cement are the traditional materials used which reflect the prevalent market preference in the country today.

In the light of such preferences and prices, and given the constraints in finance that buyers face, incremental housing construction is the most common way for people to acquire a house. This type of housing development is however costly in the long run: constructing and selling homes block by block may help avoid large amounts of capital needed to build a home in one go, but this prevents economies of scale thereby raising costs.

All these elements hold to the extent that changes are not made in the prevailing customer tastes and in their comfort

with alternative building solutions. For a given demand segment, consumer preferences related to house size, materials, types of fittings, etc. can have an impact on costs. There are for instance alternative housing solutions and building methods which tend to be much lighter, such as pre-fabricated. According to Housing Finance of Kenya, it takes one month to put down the foundations of 30 units built (cement building, 1 to 3 bedrooms). In the same time span, it is possible to actually put together onsite 30 pre-fabricated units. Assuming a building /planning code which caters for construction at the speed required, this implies: lower material cost (cement and bricks in particular), and less time for unit delivery which translates in lower financing costs as well a less cash-flow pressure. For changes to be made, the market needs education.

4 | Who (can) finance what?

Access to finance constraints in housing can be seen both from the supply and the demand side. On the supply-side lays access to finance shortcomings for developers. In other words, how can developers access the funding required to put houses into the market? On the demand side lay issues related to access to finance for households in order to purchase houses. In order words, how can houses put in the market be bought?

4.1 Financing housing supply

From a developer's perspective, the lack of equity finance in the residential housing sector has been a critical constraint contributing to the insufficient, or oftentimes inadequate, housing stock in several countries across the continent. Housing developments with too low equity make it difficult to access debt finance for construction, resulting in no margins for delays or in cost over-runs. This limits the development of housing projects delivered to market, resulting in higher priced housing stock and threatening the capital introduced by the developer in the first place.

Excessive debt leveraging of real estate developments also obliges developers to engage into high levels of pre-sales in order to have a cash-flow that allows for loan repayments over the course of construction. This can compromise any deposit finance from initial purchasers who invest in pre-sales and induces a cash-flow risks to the developers as well as foregone income since they would tend to sell at a lower price that if they did at the end of construction (see table 1). Shelter Afrique estimates than over half of their non-performing loans can be attributed to insufficient developer equity, which lengthens construction time and increases the cost of finance. Financiers across the region are beginning to realise that equity financing for developments is in short supply, and that it can offer interesting returns when compared against market housing uptake and prices practiced in the market. As a consequence, an increasing number of investors are entering the market. According to CAHF (2012), a review of investors in the Southern African Development Community region and Ghana, Kenya and Nigeria shows over 150 companies (of which financial institutions (lenders and investors), property developers, building material suppliers etc.) investing in housing finance across the region. Most notable is the increase in private equity funds (CAHF 2012:4).

Box 2 Developers equity and the lease-to-own model in Zambia

In Zambia, which is predominately a rental market, developers are faced with a low sale-to-rental ratio on the properties they build. Because of high interest rates, low mortgage uptake, and high perceived risks, households would rather rent than buy. For developers, this means that they cannot sell off properties to raise capital and build new developments. They are thus trying to implement "lease-to-own" schemes whereby households would top-up rent with an amount that would overtime build up to become the deposit base for a mortgage. Such a savings scheme would offer the possibility to increase housing ownership and provide sales opportunities for developers.

Source: AfDB Informal Survey of Developers 2012.

4.2 Financing housing demand

From a demand perspective, access to mortgage finance is a key constraint. Across Africa, the ratio of outstanding mortgages to GDP remains very low: for the entire continent, it stands at 10%, compared to over 50% for Europe and 70% for the United States (Beck et al. 2011:144). Based on average house prices, a down-payment ratio of 20% and a maximum ratio of mortgage payment to income of 40%, Beck et al (2011) estimate that the cut-off point for mortgage affordability includes only the richest 2.9% of Africans. Assuming an average loan of USD 50,000, total mortgage requirements stand at USD 300 billion for the continent, almost twice the size of the current market.

In Kenya, the country's mortgage market is the largest in the region yet outstanding mortgages to GDP only stand at 2.5%, well below top performing South Africa and Namibia where

outstanding mortgages to GDP stand at 26.4% and 19.6% respectively (World Bank 2011; CAHF 2012). Part of the reason for this low market penetration is nested in the lack of affordability due to a combination of low incomes, high interest rates, high inflation and the inability of the financial markets to cater for long-term funding. According to a World Bank (2011) affordability simulation, using 2011 interest rates only around 11% of the population could afford a Ksh 3.2 million (USD 37 800) mortgage over 15 years. If one adds a 30% down-payment, total cash available (Ksh 4.16 million or USD 49 250) would still be below average prices practiced in the market for a 1 to 3 bedroom house (see figure 3). As of 2012, according to the Kenyan Central Bank, the average mortgage across the country is Ksh 6.6 million (USD 70,500), requiring a repayment of Ksh 90 000 (USD 1,000) per month over 20 years (CAHF 2012), well above the means of the majority of the population.

In addition, one is to add the effect of inflation and interest rates, whereby mortgage payments rose accordingly for those with variable rates. In 2010, rates stood at about 15%, before dropping below the 13% line in 2011 before breaking the 20% line in 2012 (Hassconsult 2012). As a result of these swings, borrowers which drew money out while being on the edge of the population which could afford a mortgage in the first place, quickly found themselves in dire straits.

While the simulations offer interesting insights into affordability, they presume that long-term finance over 15 or 20 years is readily available. This is however not necessarily the case. While the Kenyan banking systems remains relatively liquid with low loan-to-deposit ratios, the mismatch between short-term deposits and longer-term mortgage lending remains a constraint to development (World Bank 2011). According to a survey run by the Kenyan Central Bank in 2010, Kenyan Banks themselves identified access to long-term finance as the largest obstacle to the growth of their mortgage portfolio (Central Bank of Kenya 2010).

In view of these challenges, most low income households engage in "incremental housing", whereby they keep on saving and slowly build their own house over time either room by room, or element by element. As a consequence, consumer loans for home construction are more prevalent that loans for home acquisition, in particular for lower income earners (CAHF 2012:73): outstanding loans for home purchase stand at 1.1% for the top 60% of income earners and 0.6% for the remaining 40%, while loans for home construction stand at 3.4% for the top 60% of income earners and 3.8% for the rest. Such loans are oftentimes smaller in size (thus easier to repay) as they often used to contribute to incremental housing schemes.

In view of the limited reach of formal housing finance, microfinance loans for home improvements are increasingly seen as the way forward to increase home ownership. Yet, incremental housing has important downsides: when finance ceases, people are left with no or inadequate accommodation while they have spent an enormous amount of money and need to wait until savings are high enough to continue built, or borrow against it to further improvements.

5 | Market stakeholders: who puts the houses in the market?

More than often, studies on housing markets tend to focus on the demand side, and in particular the mortgage market. Part of untold story however resides with real estate developers. Their capacity to execute projects as well as to bring well-built units at reasonable costs into the market is a key determinant of housing supply.

Table 3 presents profiles of real estate developers in selected East African countries. Excluding Zambia and to some extent Tanzania, developers are found to lack experience. In Uganda, they tend to have no more than 3 years of experience, whereas in Kenya they average 5.5. In Kenya however, in spite of

Table 3 Real estate developers profile 2012

	KENYA	UGANDA	TANZANIA	ZAMBIA
Avg Years of experience of established developers	4-7	0-3	5-8	7-10
Median Annual Turnover (USD)	2 million	300,000	3 million	5 million
Number of employees	<10	<10	<10	10-15
Avg Number of units per project	200-250	50-80	80-100	150-200
Preferred housing type (br = bedrooms)	2 to 3 br	1 to 2 br	2 to 3 br	2 to 3 br
Rental vs Build-To-sale preference	Build-To-sale	Rental	Rental	Rental

Source: Shelter Afrique Information to the Authors 2012, AfDB 2012.

their relative lack of experience, developers are able to put to the market large developments with 200 to 250 units. The implication in terms of cost is that the larger the development, the more economies of scale can be achieved, which in turn can have an effect on price.

The great majority of these developers are family-owned businesses that grew from an initial one or two housing units investment into Small and Medium Size Enterprise (SME) types of businesses capable of delivering a sizable amount of units. Such growth has implications not only in terms of financing (as established SMEs with a track record can afford to find better funding), but also to the extent that most of these SMEs may still lack adequate capacity in terms of financial management, safety and occupational health, marketing and sales, and relationship management with contractors.

The profiles presented in table 3 highlight a general lack of experience which usually comes with a lack of track record thus making financing more difficult. This often induces a degree of execution risk. Lack of access to finance for developers means that they must resort to a greater extent to pre-sales in order to sector cash-flow. Any delay in payments, or difficulties to sell on plans puts developers in a difficult position to keep projects within expected time schedules as well as within budget as noted earlier.

Building developers' capacity is thus paramount for the development of the formal housing sector. On the one hand, it will allow them to increase their capacity to deliver housing units in larger quantities so as to benefit from economies of scale. On the other hand, it will allow them to build better houses, and in safer conditions.

6 | Where are houses built? Land property and infrastructure

Table 4 Property registration 2012

	Days to register property	Cost to register property (% of property value)	Procedures required to register property (number)
Kenya	73	4,30	9
South Africa	23	5,90	6
Tanzania	68	4,40	8
Uganda	52	1,90	12
Zambia	40	8,20	5

Source: Doing Business database, World Bank 2012.

Land regulation and property titles are at the cornerstone of housing. In Kenya, land and property regulations have been inherited from colonial times and involve a rather complex tenure mechanism framed in many difference laws. By-and-large, land tenure was administered through a system of customary laws and can vary depending on ethnic groups, predominant land use or cultural practices (World Bank 2011:20).

Provisions in the 2010 constitution regarding equal access to land (in particular articles 60 to 68) seek to bring in clarity to the matter. Regulatory stability and intelligibility are required for property market development. Indeed, in order to attract the private sector in housing, and in particular in the middle to low market segments, relaxed and straightforward land regulation are needed (Hoek-Smit 2011). One indication of the complexity and multiplicity of regulation is highlighted by the number of days required to register property as shown in table 4. Compared to other East and Southern African countries, registering property is not only cumbersome, but also lengthy and expensive.

Beyond property registration and tenure, one of the most important aspects for property development is trunk infrastructure provision. The development of such infrastructure is highly linked to price since as developers buy land and service it with infrastructure, land prices rise immensely and the increment is passed on to the buyers. For instance, according to the National Housing Agency of Kenya, in 2005, prior to the beginning of the Mumbasa Road construction in Nairobi, surrounding land was sold at roughly KSH 2.8 million an acre (or KSH 3.8 million in today's prices). As the road developed, prices reached KSH 10 million.

Beyond the need for relaxed and straightforward land regulation, Hoek-Smit (2011) also emphasises local government facilitation of off-site infrastructure and land servicing (i.e. development of trunk infrastructure, water & sanitation, etc.). Indeed, it is not uncommon that due to the lack of responsiveness of utilities and local authorities, developers have to incur infrastructure costs themselves. In economic terms, although the developers are compensated for it by charging the buyers, it should be noted that some of this infrastructure has externalities which are not accounted for in favour of the developer. For instance, building a several kilometres long road in order to access an estate will also benefit surrounding populations which however will not incur any burden as only the estate's residents will pay for it. Beyond this consideration, the implication of low/slow local government action to support real estate developments is that off-site infrastructure becomes an even scarcer service which acquires a higher value, ultimately paid for by buyers.

7 | Conclusions and recommendations

In this brief, a review of the Kenyan housing market across 5 dimensions was conducted, namely (i) demand and supply, (ii) access to finance, (iii) building solutions and related costs, (iv) real estate developers capacity, and (v) land, property and land off-site infrastructure. The analysis drew out the key impediments explaining housing dynamics and provided a backdrop against which private sector participation in the sector can be framed.

With regards to demand and supply, findings suggest that there is large formal housing deficit fuelling price hikes in Kenya. An increase in housing supply is paramount in order to extend home ownership. At prevailing rates, affordability remains a key constrain. In conjunction with public sector policies, improving stakeholder capacity to ease the supply and demand side constraints is paramount.

In terms of building solutions, it was noted that key structural attributes and characteristics of dwellings on which building costs are based can have impact on pricing. With this in mind, considering the type of housing that the market demands and the related costs, it is difficult for the private sector to supply low-income segments of the population.

Linked to it is the ability of developers to benefit from economies of scale as they invest in developments. Only a handful of them can afford to invest into medium to large scale developments of 20 units and above. Not only do they lack technical capacity, but they also face difficulties in accessing finance, in particular equity.

Yet even if developers were able to lower their costs by investing into alternative housing solutions, (and assuming that such a decrease would be passed on to potential consumers) the question remains as to whether buyers have the ability to access the finance required to buy a house. Presently, the mortgage market is still relatively underdeveloped. In that context, people tend to turn towards home improvement lending rather than home purchase, which is smaller in size and easier to pay back.

Finally, the importance of efficient land registration and regulation for land acquisition and improvement (in particular in relation to off-site infrastructure and land servicing such as the development of trunk infrastructure, water & sanitation, etc.) was highlighted as being particularly central for the development of housing markets.

Stemming from these considerations, policy recommendations include:

- Use of alternative building solutions: the market needs to be educated to accept different building solutions which are more suitable cost-wise to reaching medium/lower income segments. For instance greater investments into pre-fabricated houses can be more cost effective, and drastically reduce construction time.
- Local government support: to allow for the effective supply of off-site infrastructure and land servicing (i.e. development of trunk infrastructure, water & sanitation, etc.) needed to support real estate development.
- Adequate funding system to facilitate mortgage provision: the banking system is still not in a position to offer the long-term finance that the housing sector needed. Beyond the provision of long-term mortgages, alternative financing schemes such as “lease-to-own” arrangements in partnership with local financial institutions could be deployed for instance.
- Local bank capacity building: to strengthen mortgage underwriting skills and instigate competition in the sector. This should also include microfinance providers with tailored products for the housing sector, in particular given the role that such institutions can have with regards to home improvements loans. A key challenge is the banking of those in the informal sector.
- Equity provision for developers: this will limit excessive debt leveraging of real estate developments. Private equity funds can be an interesting avenue to be pursued.
- Technical assistance: to both developers and contractors to increase their capacity to deliver housing units in larger quantities so as to benefit from economies of scale.

References

- AfDB (2011), The Middle of the Pyramid: Dynamics of the Middle Class in Africa, African Development Bank, Market Brief, April 20.
- Beattie N et al. (2010), Incremental Housing: Solutions to Meet the Global Urban Housing Challenge, Network Session - Global University Consortium UN World Urban Forum, Brazil, March 2010.
- Beck, T., Maimbo, S. M., Faye, I., & Triki, T. (2011). Financing Africa: through the crisis and beyond. World Bank Publications.
- CAHF - Centre for Affordable Housing in Africa (2011), Yearbook 2011: Housing Finance in Africa – a Review of Some of African’s Housing Finance Markets, Finmark Trust.

- CAHF (2012), Yearbook 2012: Housing Finance in Africa – a Review of Some of African's Housing Finance Markets, Finmark Trust.
- Central Bank of Kenya (2010). Mortgage Finance in Kenya: Survey Analysis, November 2010, http://xcelr8.files.wordpress.com/2010/11/cbk-world-bank-housing-finance-survey.pdf {14/05/2013}
- Finscope (2012), www.finscope.co.za
- Hassconsult (2012a), Quarter Two Report, http://www.hassconsult.co.ke/images/Quarter22012.pdf {14/05/2013}
- Hassconsult (2012b), Interest rate hikes stall mortgage market, despite long term positive returns from housing loans, http://www.hassconsult.co.ke/images/Quarter12012Special_Report.pdf {14/05/2013}
- Hoek-Smit, M.C., (2011), Government Policies and their Implication for Housing Finance, in Köhn, D., and Von Pischke, J.D., (eds), Housing Finance in Emerging Markets, Springer.
- Institute of Quantity Surveyors of Kenya (2011), The Quantity Surveyor: Current Construction Costs in Kenya, October-December 2011.
- Kenya Ministry of Housing (2013), www.housing.go.ke
- Porteus, D., (2011), Housing Finance and Financial Inclusion, in Köhn, D., and Von Pischke, J.D., (eds), Housing Finance in Emerging Markets, Springer.
- Shelter Afrique, (2013), Mavoko Sustainable Neighbourhood Programme: Feasibility Report, April 2013.
- UN-HABITAT (2011), Affordable Land and Housing in Africa, Nairobi.
- United Nation (2012), World Urbanization Prospects: the 2011 Revision, Population Division, http://esa.un.org/unpd/wup/index.htm {accessed on 08/01/13}
- World Bank (2011), Developing Kenya's Mortgage Market, Report N. 63391-KE, Washington D.C., May 2011.
- World Bank (2012), Doing Business 2012: Doing Business in a More Transparent World, Washington D.C., October 2011.

Annex

Table 5 Building cost for a sample 3 bedroom, 50 m2 unit

	Central region (incl. Nairobi)	Coastal region (incl. Mumbasa)	Western Region
High class single units (maisonettes)	23 952	25 749	25 749
High class high rise flats	26 946	25 749	25 749
Low cost, low rise flats	18 563	16 766	16 766
Low cost, high rise flats	20 958	20 359	20 359
Same caveats as table 1 apply. Note that potential cost reductions which can accrue thanks to economies of scale in large developments do not apply. Author's elaboration based on table 3.			

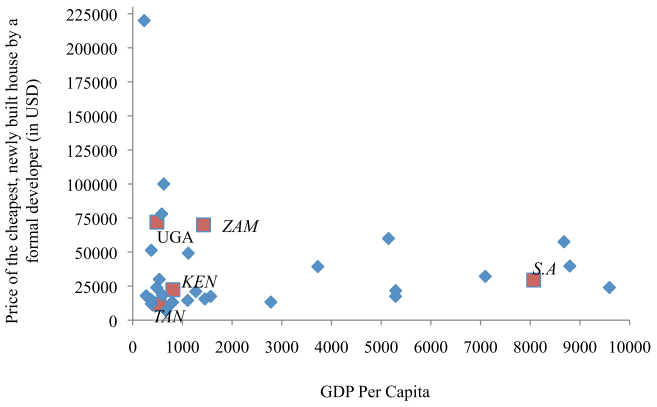
Source: Author based on Institute of Quantity Surveyors of Kenya (2011).

Table 6 Unit price adding 40% based on assumed total unit cost breakdown (see point 4.2) for a sample 3 bedroom, 50 m2 unit

	Central region (incl. Nairobi)	Coastal region (incl. Mumbasa)	Western Region
High class single units (maisonettes)	33 533	36 048	36 048
High class high rise flats	37 725	36 048	36 048
Low cost, low rise flats	25 988	23 473	23 473
Low cost, high rise flats	29 341	28 503	28 503
Same caveats as table 1 and 2 apply. Author's elaboration based on table 2.			

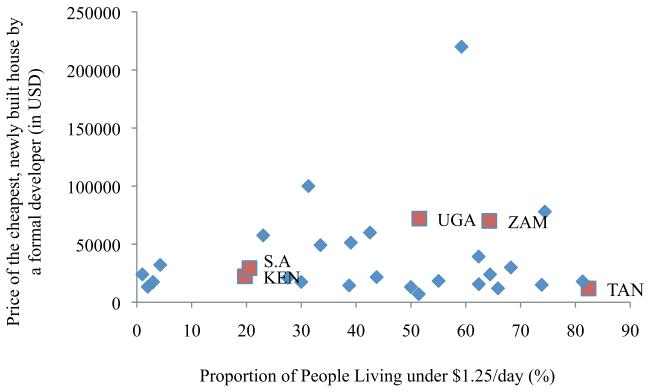
Source: Author based on Institute of Quantity Surveyors of Kenya (2011).

Figure 5 Cheapest house prices to GDP – Africa



Source: Author based on CAHF 2012.

Figure 6 Cheapest house prices to poverty line



Source: Author based on CAHF 2012.