



Nairobi Mortgage and Rental Affordability Report

"Nairobians priced out of most neighborhoods, except Satellite Towns"

25th April, 2016



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I. Introduction to Cytonn Investments

Client Focus Drives the Team

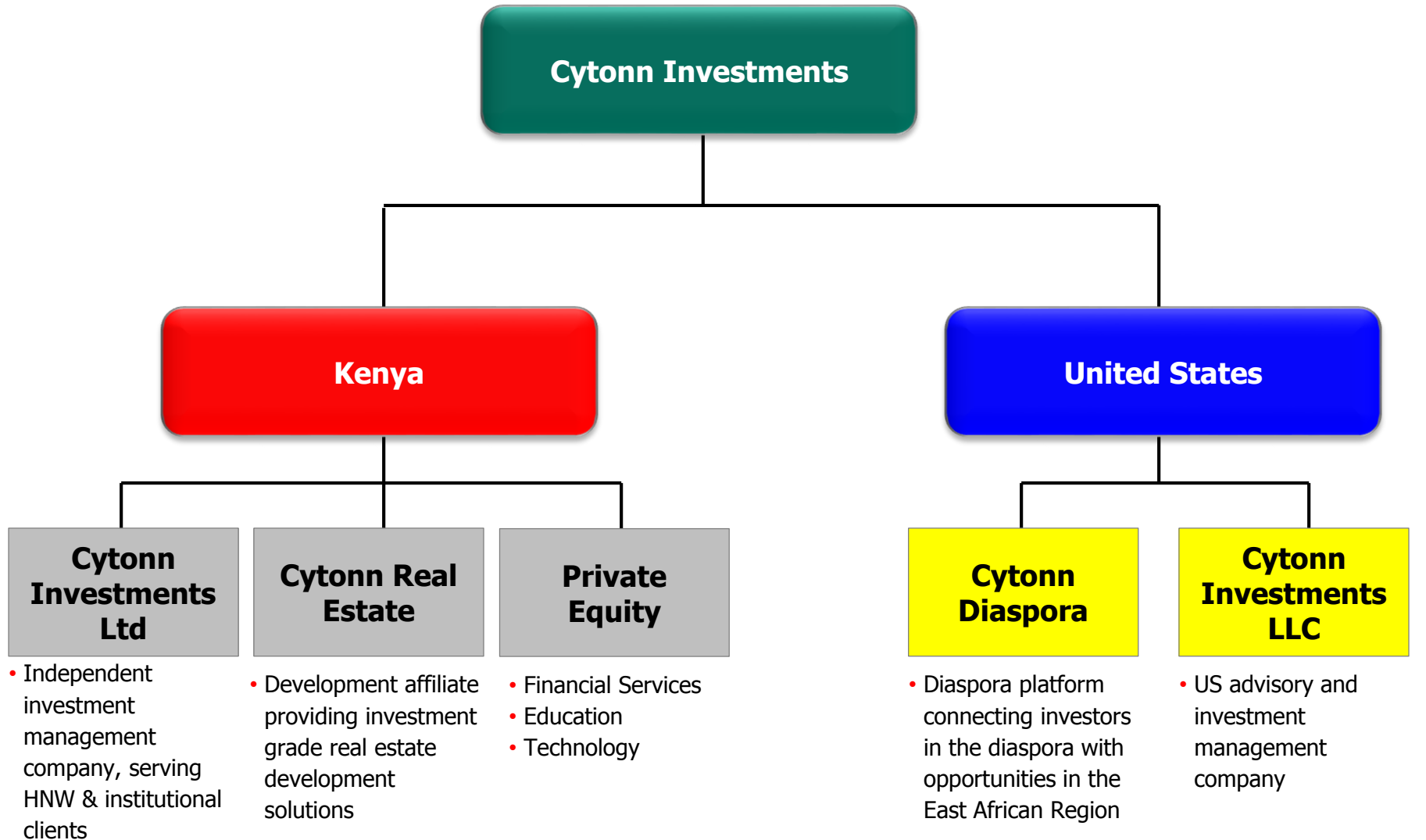


Introduction to Cytonn Investments

Cytonn Investments is an independent investments management company

- Our mission is that ***"we work to deliver innovative & differentiated financial solutions that speak to our clients needs"***
- Cytonn Investments is differentiated in several respects:
 - 1. Independence & Investor Focus:** Cytonn is solely focused on serving the interest of clients, which is best done on an independent investment management platform to minimize conflicts of interest
 - 2. Alternative Investments:** Specialized focus on alternative assets - real estate, private equity, and structured products
 - 3. Partnerships with Global Institutional Investors:** Such as Taaleritehdas of Finland
 - 4. Strong Alignment:** Every staff member participates in ownership. When clients do well, the firm does well; and when the firm does well, staff do well

Cytonn's Corporate Structure – Kshs 53 Bn Under Mandate



Board of Directors

The board is comprised of 10 members from diverse backgrounds, each bringing in unique skill-sets



Prof. Daniel Mugendi,
Chairman



Mike Bristow,
Non-executive Director



Antti – Jussi Ahveninen,
Non-executive Director



James Maina,
Non-executive Director



Nasser Olwero,
Non-executive Director



Kenneth Ndura
Non-executive Director



Madhav Bhalla,
Non-executive Director



Edwin H. Dande,
Managing Partner & CEO



Elizabeth N. Nkukuu,
Partner & CIO



Patricia N. Wanjama,
Partner & Head of Legal

The Management Team

The team brings in diverse global and local experience



Edwin H. Dande,
Managing Partner & CEO



Elizabeth N. Nkukuu,
Partner & CIO



Patricia N. Wanjama,
Partner & Head of Legal



Maurice Oduor,
Finance and
Investment Manager



Johnson Denge,
Real Estate Services Manager



Robert M. Mwebi,
Project Manager



Martin Gitonga
Project Manager



Shiv Arora,
Head of Private Equity
Real Estate



Gaurang Chavda,
Head of Private Wealth
Management



Winfred Ndung'u,
Brand & Business
Administration
Manager



Beverlyn Naliaka,
PR & Communication

Cytonn Investment Solutions

We offer differentiated investment solutions in four main areas

High Yield Solutions

- The Team's expertise and market knowledge enable us to offer investors higher yields than the market average
- Regular credit analysis, quick dealing capability and the large banking spread in the market allow the team to capitalize on investment opportunities

Real Estate Investment Solutions

- Our unique strategic partnerships with Cytonn Real Estate, our development affiliate, enables us to find, evaluate, structure and deliver world class real estate investment products for investors
- Our platform connects global capital seeking attractive return with institutional grade development opportunities in the East African region

Private Regular Investment Solutions

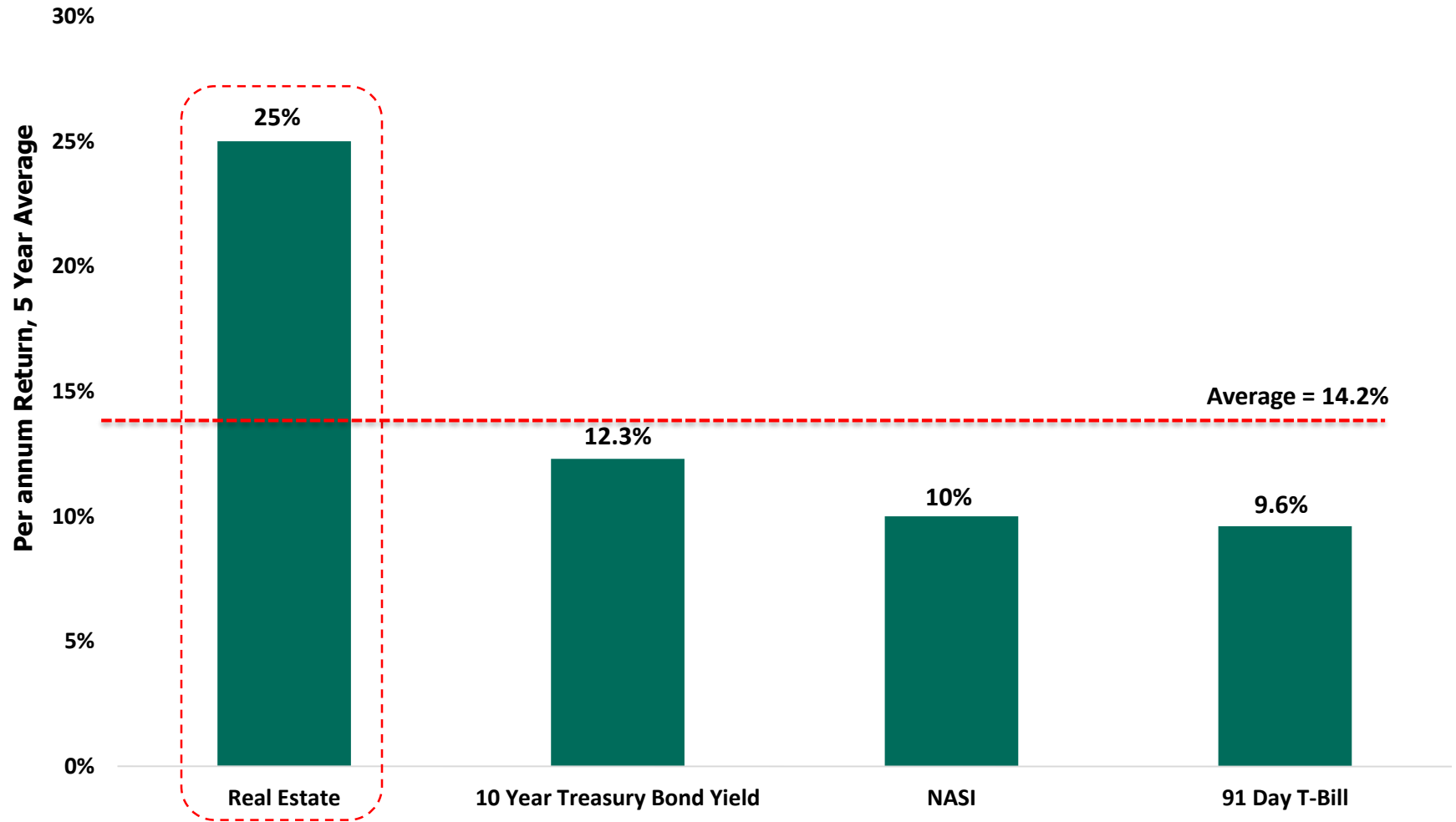
- We understand that investors have varying financial goals. Our highly customized and simple to understand investment products will enable you to achieve your investment objective
- We offer solutions to both local investors, and those in the diaspora interested in the investment opportunities back in Kenya and the region

Private Equity

- Cytonn seeks to unearth value by identifying potential companies and growing them through capital provision and partnering with their management to drive strategy
- We primarily invest in the Financial Services, Education and Technology sectors

Cytonn focuses on the highest returning Asset Class

Traditional investments returning 10% compared to 25% for real estate, & projected to continue

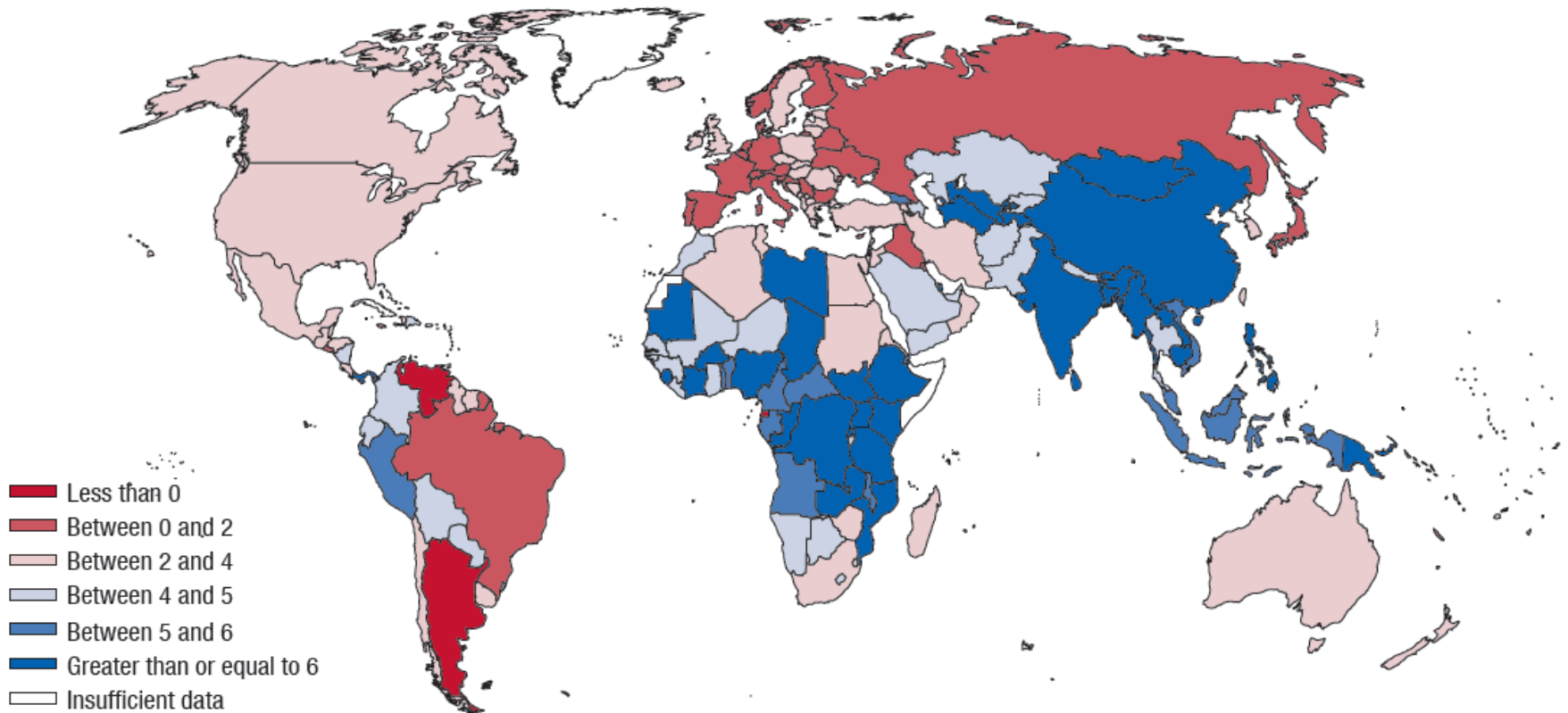


Global view of economic growth determines regions of focus

There is demand from global capital (light colors) looking for attractive returns (dark colors)

Figure 2.1. 2015 GDP Growth Forecasts and the Effects of a Plausible Downside Scenario

1. 2015 GDP Growth Forecasts¹
(percent)

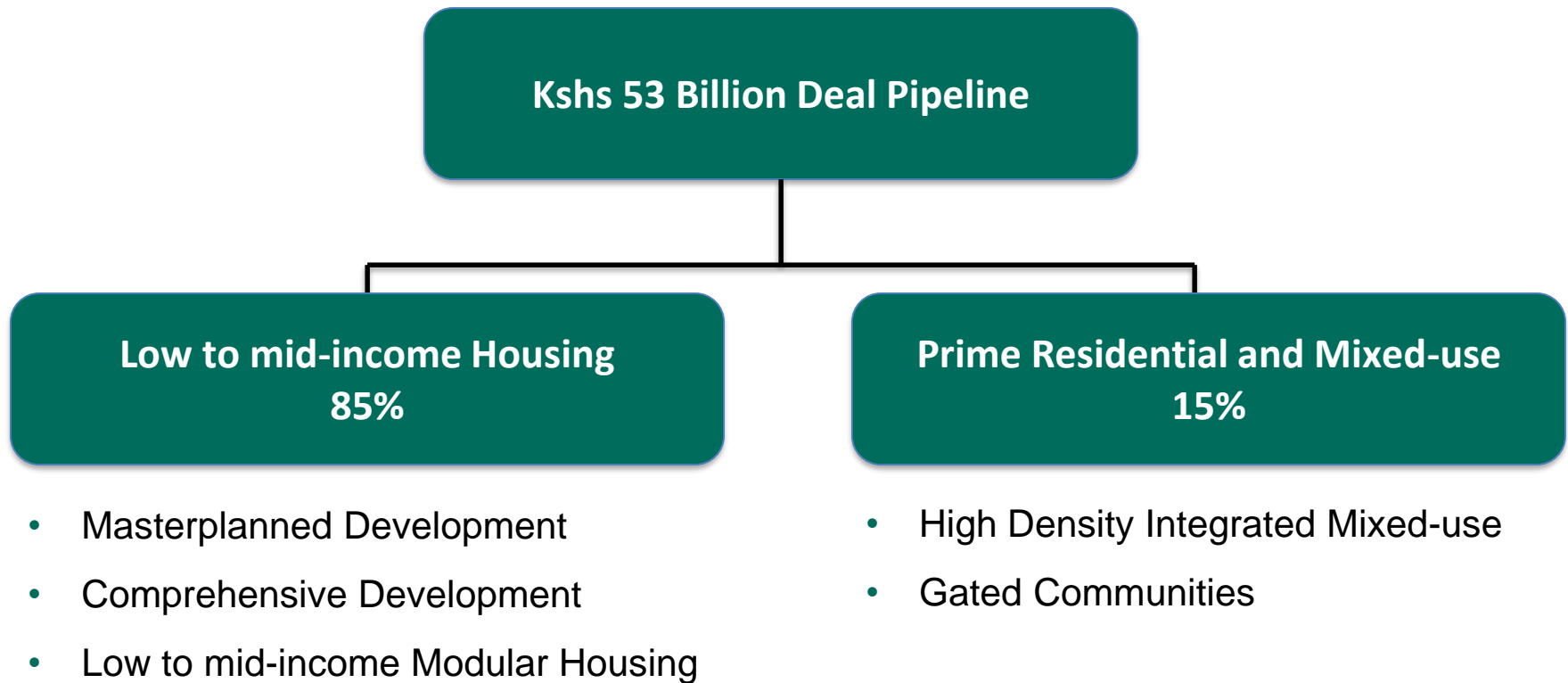


Key themes driving our property development

A large housing deficit, growth of the middle class and demographic trends are just a few on the factors driving our thematic investments in Real Estate

KEY THEME	REAL ESTATE SECTOR PROVIDING EXPOSURE TO KEY THEME				
	Master Planned Communities	Commercial Office Parks	Commercial Mixed-Use	Suburban Malls	Three Star Hotels
1. Large Housing Deficit	✓		✓		
2. Growth of Middle Class	✓	✓	✓	✓	✓
3. Demographic Trends	✓	✓	✓	✓	✓
4. Improved Infrastructure	✓	✓	✓	✓	✓
5. Political Decentralization	✓	✓	✓	✓	✓
6. Kenya as a Regional Hub	✓	✓	✓	✓	✓

Deal pipeline overview – 85% to low and mid-income housing



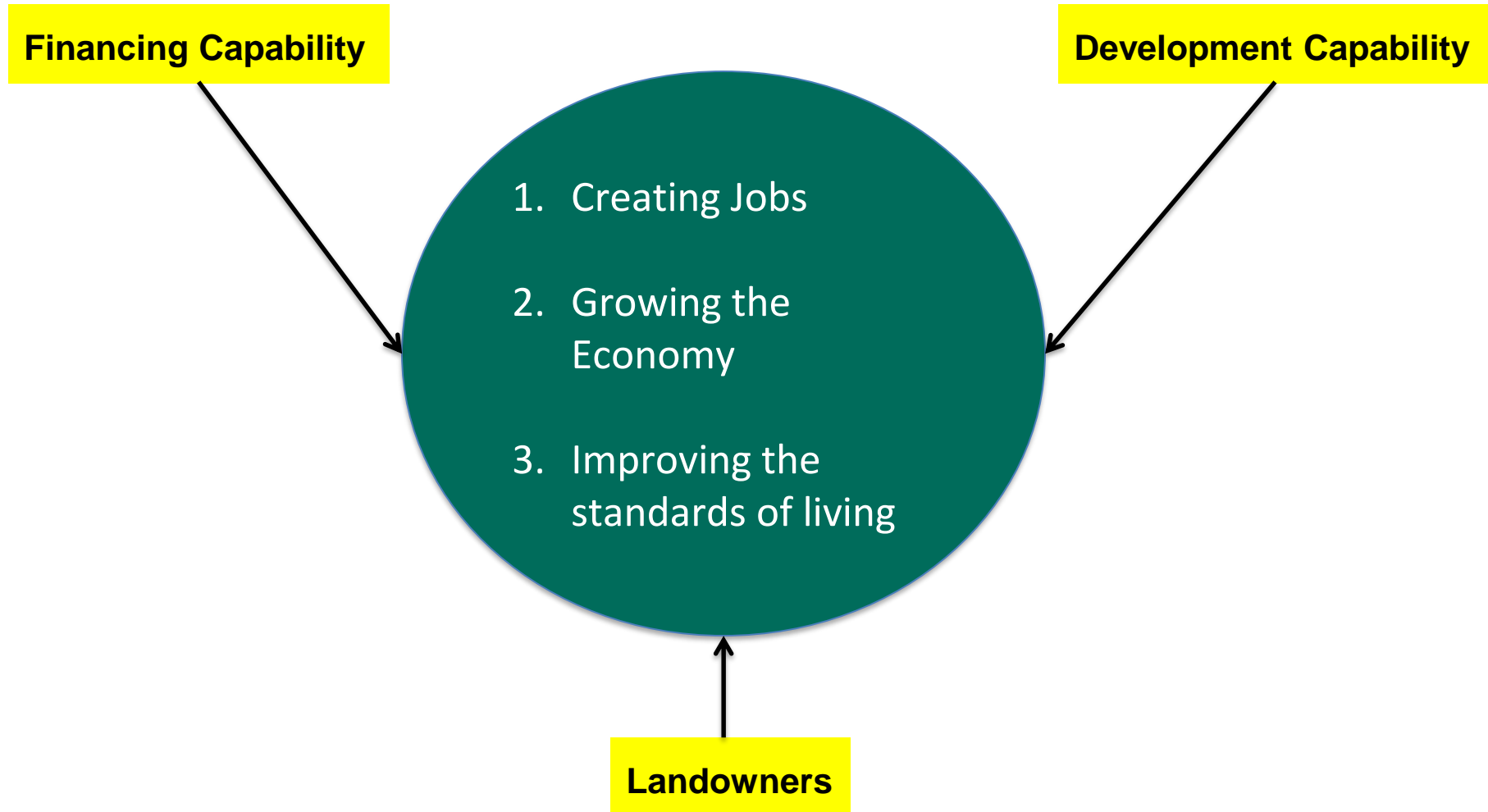
Summary of Projects - Kshs 53 bn Deal Pipeline Details

- Set 1:** Real estate projects where the design, concept, agreements and funding are all secured, and have ground broken or in the process of ground breaking
- Set 2:** Real estate projects where the Cytonn Real Estate team is in advanced stages of negotiations with the landowners, and where consultants have been appointed to begin market research and concept design

all values in Kshs Millions unless stated

Projects	Concept	Project Size
SET 1		
Amara Ridge	Gated community	625.0
Situ Village	Gated masterplanned community	4,500.0
The Alma	Middle-class residential development	2,744.0
Athi Sharpland	Site & Service Scheme	644.7
Ruaka 2	Middle-Class Residential development	522.9
Rongai Sharpland	Site & Service Scheme	375.5
Sub - Total		9412.1
SET 2		
Project Mombasa	High density mixed-use development	3,750.0
Kiambu Road	Middle-class gated community	3,832.0
Project Kitale	Masterplanned development	700.0
Project Mavoko	Low to mid income masterplanned city	12,500.0
Project Lukenya	Low to mid income masterplanned city	22,500.0
Sub - Total		43,282.0
TOTAL		52,694.1

Cytonn's strategy brings three key pillars together



II. Overview of Real Estate in Kenya

Real Estate in Kenya

Real estate sector expected to continue growing on the back of developments such as REIT's, and the entry of institutional developers and financiers to the market

Macro-economic Contribution

- The real estate sector contributes to 9% of Kenya's GDP
- In Q3/2015, the construction and real estate industry recorded the highest growth at 14.1%, compared to 10.1% in financial services and 7.1% growth in agriculture
- A stable political environment, as well as favourable macroeconomic conditions such as a relatively stable interest rate environment have led to positive development in the sector

High Returns

- Real estate has consistently out performed other asset classes in the last 5 years, generating returns of 25% p.a., compared to an average of 10% p.a. in the traditional asset classes
- Residential units in Kenya generate an average rental yield of 5.0%, while commercial space generates an average yield of over 9.0%

Recent Developments

- The real estate sector which was previously dominated by individual developers has seen entry of more institutional developers such as Saccos, private equity firms and foreign institutions
- Development of REITS in the capital markets, as a way to raise funding and exit real estate developments, is likely to attract more institutional investors
- The real estate market has also seen an increased interest in the structured products aimed at easing the financing of the developments in the market

Market Outlook

- We expect continued growth on the back of improved macroeconomic conditions, sustainable high returns, and a changing operational landscape as developers strive to satisfy the high housing deficit
- The industry however continues face challenges such as the unfavourable interest rate environment

Residential Market In Kenya

Kenya currently has 22,000 mortgages, in a country of 44 million, equating to 2.7% of GDP

- Over the last decade, the residential property market has grown rapidly
- Hass Consult estimates that property values have increased by 357% from the year 2000, and over the last five years, prices have appreciated at a rate of between 4.7% and 10.0% y/y
- The contribution of real estate sector to GDP has also grown from 4.9% in 2011 to 9% in 2015
- The above factors have been attributed to an increase in the number of middle class population, an increase in disposable income, increased rate of urbanisation at 4.4% and excessive demand that far outweighs supply with an annual housing deficit of 200,000 units
- However, the mortgage uptake, has not been reflective of the above. It has remained consistently low despite increased construction and selling of houses
- As at 2014, there are only 22,000 mortgages in the whole country worth Kshs 164 billion

Year	Number of Mortgages	Average Mortgage Amount in Millions (Ksh)	Percentage Increase
2010	15,049	4.0	
2011	16,135	5.7	7%
2012	18,587	6.4	15%
2013	19,879	6.9	7%
2014	22,013	7.5	11%

Recent Developments in Kenya's Sector

Foreign participation and masterplanned cities are leading developments in residential real estate

- **Increased Foreign Participation:** The real estate market in Kenya is increasingly being exposed to international developers and financiers. They include AFDB, Taaleri, Islamic Development corporation, which are focusing on reducing the housing deficit in Kenya
- **Listing of Property in form of REITS:** Late last year Stanlib issued an I-REIT in the NSE and this year Fusion capital was given a greenlight by CMA to issue two D-REIT's to finance and exit real estate developments, which are based on mixed-use residential concepts
- **Rise of Masterplanned Cities:** Master planned communities and cities have picked up in the recent times, and offer a live, work, play environment in a controlled nature. New master planned cities include Northlands and Cytonn's planned master plan city in Athi River
- **Alternative Building Technology:** Although nascent it is starting to gain momentum as they save time in construction and hence have a possibility of reducing financing costs, which will benefit the end consumer as they will pay lower amounts for their residential units
- **Rise in Distressed Assets:** The tough operating environment in Q3'2015 resulted in mortgage and loan defaults which has seen a lot of distressed property entering the market

Factors Affecting Supply of Houses

High financing costs negatively affect the supply of houses, but improved infrastructure is opening up satellite towns for housing development

Availability of Land

- Availability of development land has been low within Nairobi resulting in relatively high prices most especially in the city's residential nodes in Kilimani, Kileleshewa and Westlands
- Residential apartments are common in these nodes, however unit prices are relatively high
- Developers are however shifting focus to the Nairobi Metropolitan Towns such as Ruaka, Rongai, Kitengela, Ruai and Kikuyu where land is relatively affordable, thus resulting in increased supply

Access to Funds

- Lack of proper funding for real estate developments has resulted in excessive debt financing, resulting in increased financing costs owing to the extended project time frames
- Entry of international players such as Africa Development Bank, Taaleritedhas and Avic is expected to increase supply

Construction Cost

- Housing construction costs have been relatively high owing to the high costs of construction materials which constitute 70% of the total construction costs
- Numerous permits and certification fees and charges further drive costs up; for instance architects fee at 4% of construction cost
- Technological innovations have brought in cheaper alternative construction material such prefabs which reduce construction costs by almost 40% but the market is still at infancy for prefab uptake

Infrastructure Support

- Improved infrastructural developments such as improved roads, the SGR, electrification, and ICT have opened up new development areas in areas such as Athi River, Mlolongo and Ruaka
- Other challenges however such as sewerage, water supply and other social amenities have greatly hampered supply of housing, most especially within the Nairobi Metropolitan towns necessitating the need for local government support in the real estate industry

Factors Affecting Demand For Houses

Increasing incomes, population growth and changing customer preferences are driving the demand for houses in the country

High Incomes

- Unemployment rate has been steady over the years, averaging at 17.3% since 2011, albeit declining
- Household incomes have increased driven by the fact that most household especially within the middle income class have both partners working and earning a steady income
- This has resulted in increased demand for formal housing, thus pushing prices up

Demographics

- Rapid population growth of 2.4% p.a. is creating increased demand for housing, as families grow and consumer needs change to reflect independent living
- High urbanization rate of 4.4% p.a. in the Nairobi area and the metropolis
- The Kenyan 'middle class' have created a huge opportunity for integrated housing developments such as mixed used developments and master planned communities

Access to Mortgages

- Access to mortgages is relatively low but is gradually improving from 2.5% of GDP in the year 2007 to 3.5% in 2015
- Finance institutions are currently offering mortgages at rates between 12.0 - 21.4%, which remain high, relative to income levels in the market
- High deposits demands by banks however lock out low income earners

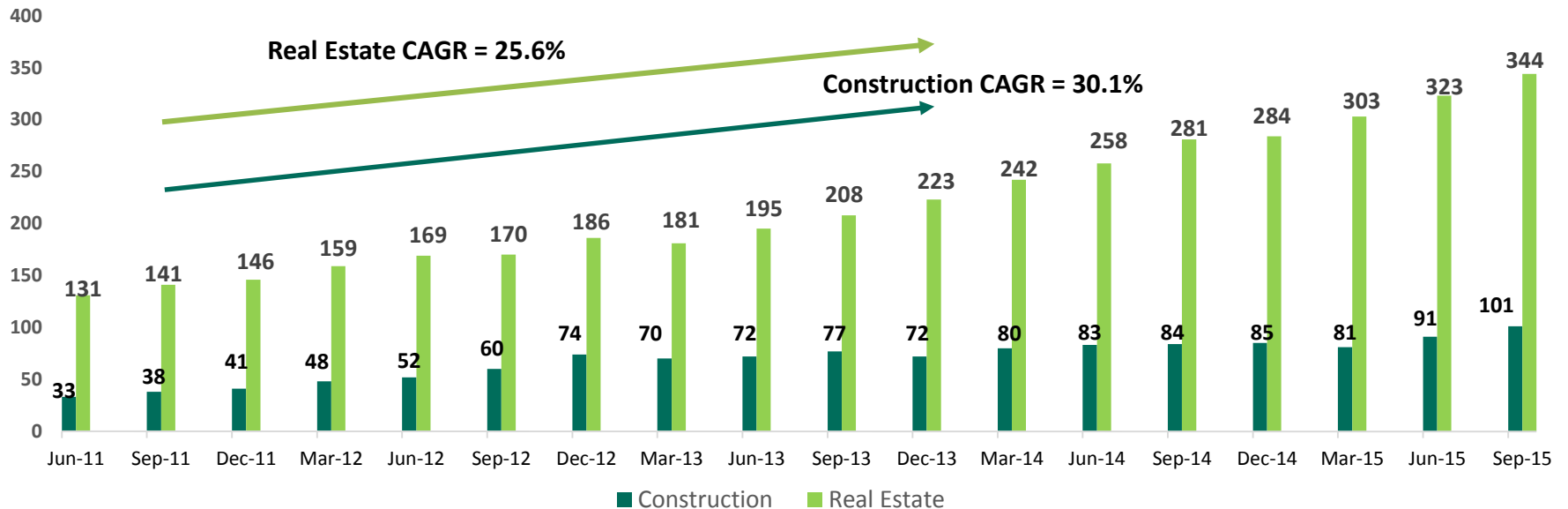
Preferences

- Increased incomes and the expanding higher middle class has resulted into differentiated demand for housing that suits different household needs
- Attractiveness of the city's posh estates as well as proximity advantages of metropolitan towns has resulted in high demand thus pushing house prices up
- Specifications in architectural designs as well as finishing has resulted in high construction costs

Credit to Real Estate and Construction

Credit to Real Estate and Construction have grown at a CAGR of 25.6% and 30.1%, respectively

Credit to Real Estate and Construction (Kshs Bn)



- Credit to the Real Estate and construction sector are increasingly growing as investors try to exploit the boom experienced in this sector. Banks and other creditors, be it global or local are realizing the potential of this sector to derive value and the impact they have on GDP growth
- Credit to the Real Estate and Construction sector have been growing at a CAGR of 25.6% and 30.1% for the last 4.3 years, ranked 3 and 8 in the overall banking loan portfolio in the country

III. Nairobi Metropolitan Affordability Report

Executive Summary

The Nairobi metropolitan market is more suited for renting than buying through mortgage

- We carried out a research on house rents and prices across the Nairobi Metropolitan area. This is in Nairobi and 32,000 square kilometres surrounding it.
- Kenya has suffered from a very low uptake of mortgages, with there being only 22,000 mortgages in a country with a population for 43 million people, equalling one mortgage for every 1,954 Kenyans. Research was driven by the need increase information in the market for potential homeowners and those looking to rent properties
- Affordability indices measure whether the median household income is sufficient to pay for:
 1. Property using a Mortgage Loan: Mortgage Affordability Index (MAI) or;
 2. Rent: Rental Affordability Index (RAI)
- Mortgages were unaffordable in most estates with the Nairobi metropolitan area having an index of 66
- Satellite towns had the highest Mortgage affordability index at 91
- Rents were affordable in most estates and towns in the Nairobi Metropolitan area
- The Nairobi Metropolitan area had a rental affordability index of 132. Satellite towns also had the highest Rental affordability index at 183

Mortgage & Rental Affordability – *Nairobians priced out of most neighborhoods, except Satellite Towns*

Satellite Towns are the regions in the Nairobi Metropolitan area where mortgages and rents are most affordable

Value Area	Summary	Effect on Affordability
Land Price & Zoning	<ul style="list-style-type: none">Land is relatively affordable in satellite towns, with flexible zoning requirementsInfrastructure developments such as new roads and railway construction have opened up new areas for development	<ul style="list-style-type: none">Land prices are affordable to undertake large scale developments, which are lower in price to those in the Nairobi CBDFlexible and regulated zoning allows for development of high-density developments to cater for the growing middle class
Income Levels for Rent	<ul style="list-style-type: none">Residents in these areas have income levels similar to those in the CBDHigh costs of residential accommodation in the CBD, combined with high interest rates for borrowing, has led to people looking to rent better quality homes	<ul style="list-style-type: none">Majority of homeowners are now looking to rent, as it is the most affordable optionDevelopers are providing some supply in the area, and real estate investors are purchasing units, to later rent them out to the growing demand in the townsHomeowners get larger, higher quality homes for the same price
Amenities	<ul style="list-style-type: none">Satellite Towns have fewer amenities than those available in the CBD, however with a growing commuter population living in satellite towns, there are increasing number of retail and commercial facilities being developed	<ul style="list-style-type: none">Developments are now being undertaken, which provide retail and commercial facilities, to increase access to amenitiesThis increased the value of the developments, as well as providing easy access to homeowners / renting families who work in the CBD

We expect increased movement by households to satellite towns as they seek to own or rent homes that are relatively more affordable, with a host of nearby amenities, which will lead to the development of new neighborhoods

Methodology for the Index

Index measures whether households can afford a house, assuming 40% of income is used in housing

- The Mortgage Affordability Index is a tool used to measure whether the average income earned by a house hold is enough to enable a household to purchase a house with the mortgage option
- The index is calculated by dividing the income a household earns by the income they need to pay as monthly mortgage payments
- The income required to pay monthly mortgage payments is calculated by taking the monthly mortgage payments divided by 40%
- The assumption is based on the fact that ideally, a household cannot commit more than 40% of their monthly income to mortgage payments
- For the rental affordability index, the assumption is that households can commit up to 30% of their income to pay rent

Interpretation

- If the MAI is more than 100: A typical household has more than enough income to qualify for a mortgage for a median priced house
- If the MAI is equal to 100: A typical household earns exactly the required amount sufficient to pay for a mortgage loan for a median priced house
- If the MAI is less than 100: A typical household earns less than the required income to qualify for a mortgage loan for a median priced single family house

Methodology for the Index, continued...

Nairobi Metropolitan residential areas were classified into four regions

- The Kenya National Bureau of Statistics (KNBS) classifies income groups in Kenya as shown below

Income Group	Level of monthly Income (Ksh)
Low Income	Below Ksh 23,672
Middle Income	Between Ksh 23,673 and Ksh119,999
High Income	Above Ksh 120,000

- For the purpose of this study, income levels were categorized as shown below:

Cytonn's Classification of Income Levels			
Income Group	Income Level	Median Household Income (Kshs)	Location
High Income	Kshs 300,000 and above	1,300,000	Muthaiga, Runda, Karen, Kitusuru
Upper Middle Income	Between Kshs 150,000 and Kshs 300,000	450,000	Kilimani, Westlands, Kileleshwa, Riverside, Nyari, Rosslyn, Riverside, Ridgeways
Lower Middle Income	Between Kshs 50,000 and Kshs 150,000	200,000	Donholm, Kahawa, South B&C, Komarock, Umoja, Buruburu, Embakasi, Dagoretti, Kasarani, Lang'ata, Satellite Towns
Lower Income	Between Kshs 25,000 and Kshs 50,000	75,000	Githurai, Kariobangi

A. Mortgage Affordability

Mortgage Affordability – Overall Classification

Mortgages are generally unaffordable across all regions in the Nairobi Metropolitan area

(all values in Kshs unless stated otherwise)

Zone	Median Household Income	House Price Per Square Metre	Monthly Mortgage Payments	Qualifying Household Income	Mortgage Affordability Index
Satellite Towns	200,000	65,843	82,985	228,209	91
Lower Middle	200,000	74,976	100,979	252,446	79
Low Income	56,250	49,452	33,418	83,545	67
Upper Middle	450,000	130,140	460,019	1,150,048	46
High Income	1,300,000	247,879	1,235,790	3,089,475	42
Median	200,000	97,295	135,635	358,070	66

- The median monthly income in Nairobi metropolitan area is Ksh 200,000, this is against Kshs 358,070 required to afford a mortgage in the region hence mortgages are not affordable in Nairobi Metropolitan at a median index of 66
- In the high-end market, a median income of Kshs 1.3 Million is insufficient to purchase a house using a mortgage
- Mortgages are unaffordable in the upper mid-end, lower mid-end and low-end regions with the high end region having the lowest affordability index at 42 out of a requisite 100
- The only region where the median income earned by the residents is almost sufficient to cater for a mortgage is in satellite towns with a MAI of 91
- This is attributable to the relatively lower land prices in these areas, hence lower house prices

Mortgage Affordability - High Income

House mortgages in high-end suburbs are unaffordable for household with a median income of Ksh 1.3Mn

(all values in Kshs unless stated otherwise)

Suburb	Median Household Income	House Price Per Square Metre	Monthly Mortgage Payments	Qualifying Household Income	Mortgage Affordability Index
Karen	1,300,000	206,669	946,250	2,365,625	55
Runda	1,300,000	218,604	966,064	2,415,159	54
Kitisuru	1,300,000	294,508	1,235,790	3,089,475	42
Nyari/Rosslyn	1,300,000	247,879	1,263,516	3,158,791	41
Muthaiga	1,300,000	680,555	1,935,920	4,839,799	27
Median	1,300,000	247,879	1,235,790	3,089,475	42

- A median income of Kshs 1.3 million a month is insufficient to afford a mortgage for a single family dwelling unit in the high end suburbs within Nairobi
- This is as the indices for all the estates are less than 100, Karen is the least unaffordable area in this class with an index of 55, followed by Runda with an index of 54
- Kitusuru comes in third in our sample with an index of 42 and the most expensive and hence most unaffordable house mortgages in this region are in Muthaiga which has a low index of 27
- Since these areas are not major rental markets, the unaffordability of mortgages indicates that most houses are acquired through cash transactions as opposed to mortgage purchasing

Mortgage Affordability - Upper Middle

A median monthly household income of at least Ksh 1.2Mn is required to pay for a house mortgage in this region

(all values in Kshs unless stated otherwise)

Estate	Median Household Income	House Price Per Square Metre	Monthly Mortgage Payment	Qualifying Household Income	Mortgage Affordability Index
Kileleshwa	450,000	126,430	225,274	563,186	80
Kilimani	450,000	113,892	270,673	676,682	67
Westlands	450,000	129,007	407,681	1,019,204	49
Spring Valley	450,000	131,273	531,066	1,327,664	42
Riverside	450,000	149,644	512,357	1,280,893	37
Ridgeways	450,000	150,632	578,583	1,446,457	31
Median	450,000	130,140	460,019	1,150,048	46

- Mortgages are unaffordable in this region with Kileleshwa being the most affordable with an index of 80
- The zone has a low affordability index of 46 indicating that the median income is insufficient to support a mortgage on a house
- This is as the houses prices are relatively high, with a square metre being sold at a median price of Kshs 130,000. A household therefore needs to earn a minimum of Kshs 1.2 Million to afford a house in this region on mortgage
- The high prices and charges in this area relative to income is a clear indication of the joneses effect with the residents in this income group living beyond their means to keep up with their high end counterparts
- To purchase a house in this market therefore, a household has to look for alternative methods of financing such as a bank loan or personal savings

Mortgage Affordability - Lower Middle

House mortgages are affordable in Buruburu, Embakasi and Umoja, while are most unaffordable in South B & C

(all values in Kshs unless stated otherwise)

Estate	Median Household Income	House Price Per Square Metre	Monthly Mortgage Payment	Qualifying Household Income	Mortgage Affordability Index
Embakasi	200,000	69,235	59,453	148,633	135
Umoja	200,000	68,840	66,289	165,723	121
Buruburu	200,000	69,697	78,784	196,959	118
Komarock	200,000	74,976	84,163	210,407	97
Donholm	200,000	75,940	100,979	252,446	86
Dagoretti	200,000	73,974	107,385	268,462	74
Kahawa	200,000	141,166	276,342	690,854	63
Kasarani	200,000	103,283	190,816	477,039	58
Lang'ata	200,000	119,825	181,942	454,855	55
South B & C	200,000	157,479	163,399	408,496	53
Median	200,000	75,458	104,182	260,454	77

- With a median income is Kshs 200,000, a household can comfortably afford a mortgage in Buruburu, Embakasi and Umoja
- In other areas in this zone such as Kahawa, Kasarani, Lang'ata and South B and C, the median income is not sufficient to cater for a mortgage, due to high house prices with individuals requiring a minimum monthly income of Kshs 261,000 to afford a mortgage
- The prices in Kahawa and Kasarani are high due to their strategic locations along Thika Road, while prices in Lang'ata are high because of its proximity to Karen, high prices in South B and C are due to its proximity to the CBD
- The unaffordability of mortgages in these regions has led to many of them burgeoning as major rental markets

Mortgage Affordability - Low Income

Households need a minimum of Kshs 43,000 to afford mortgages in this region

(all values in Kshs unless stated otherwise)

Estate	Median Household Income	House Price Per Square Metre	Monthly Mortgage Payment	Household Qualifying Income	Mortgage Affordability Index
Githurai	56,250	28,938	17,376	43,439	129
Kariobangi	56,250	69,966	49,460	123,650	45
Mean	56,250	49,452	33,418	83,545	67

- The MAI index of 129 for Githurai means that households in this income group can afford to purchase houses in Githurai using the mortgage option
- However, these households cannot afford house mortgages in Kariobangi which has a low affordability index of 45
- The unaffordability of mortgages in Kariobangi can be attributed to the relatively high house prices in this estate which have a median price per square metre of Kshs 69,966

Mortgage Affordability - Satellite Towns

Mortgages are relatively affordable in the Satellite Towns with an Index of 91

(all values in Kshs unless stated otherwise)

Estate	Median Household Income	House Price Per Square Metre	Monthly Mortgage Payments	House Hold Qualifying Income	Mortgage Affordability Index
Ruai	200,000	39,722	39,941	109,838	182
Athi	200,000	63,610	44,287	121,791	164
Kikuyu	200,000	68,966	67,972	186,924	107
Kitengela	175,000	64,731	78,100	214,776	81
Rongai	200,000	68,076	97,997	269,493	74
Ruaka	200,000	91,307	98,595	271,137	74
Ngong	200,000	56,848	111,871	307,644	65
Median	200,000	64,731	78,100	214,776	91

- Mortgages are relatively affordable in this area with an index of 91. This can be attributed to lower land costs in this regions
- Houses are more affordable in the less modernised towns which have lower land prices such as Ruai, Athi River and Kikuyu
- The more modernised towns, which have higher prices are not affordable and they include Kitengela, Ruaka and Ngong

Summary Conclusions on Mortgage Affordability

Githurai is the most affordable mortgage market with a household requiring a monthly income between Kshs 25,000 – Kshs 50,000 to buy a house using a mortgage

Income Bracket (Kshs)	Affordable Towns
25,000 - 50,000	Githurai
50,000-150,000	Kariobangi, Athi, Kikuyu, Kitengela, Ruai, Buruburu, Embakasi, Umoja
150,000-300,000	Ruaka, Lang'ata, Kasarani, Kahawa, Donholm, South B & C, Dagoretti, Rongai, Komarock, Ngong'
300,000- 1,000,000	Ridgeways, Westlands, Spring Valley, Riverside, Kileleshwa, Kilimani
Above 1,000,000	Nyari, Karen, Runda, Muthaiga, Kitusuru

- Githurai is the most affordable mortgage market with a household requiring a median income of between Kshs 25,000 – Kshs 50,000 to purchase a house using a mortgage
- Nyari, Karen, Runda, Muthaiga and Kitusuru are the most unaffordable mortgage markets with households requiring a minimum of Kshs 3.1 Million to purchase a house using a mortgage

B. Rental Affordability

Rental Affordability - Introduction

Rental market is affordable in Kenya with an Index of 132

(all values in Kshs unless stated otherwise)

Zone	Median Household	House Rent	Household Qualifying	Rental Affordability
	Income	Per Square Metre	Income	Index
Satellite Towns	200,000	294	109,448	183
Lower Middle	200,000	346	126,748	158
Low Income	56,250	253	44,288	127
High Income	1,300,000	960	1,166,000	111
Upper Middle	450,000	630	628,858	72
Median	200,000	392	157,067	132

- Most typical single family households within the Nairobi Metropolitan area can afford the rents they pay for their houses
- In all the residential regions surveyed, the rents charged were affordable relative to the median income earned by the tenants except in the Upper Middle (Kilimani, Westlands..)
- This is an indication that house holds in the Upper Middle are living beyond their means as they pay more than one third of their income as rent

Rental Affordability - High Income

A median monthly household income of Kshs. 1.3 million is not sufficient to rent a house in Nyari

(all values in Kshs unless stated otherwise)

Estate	Median Household Income	House Rent Per Square Metre	Household Qualifying Income	Rental Affordability Index
Runda	1,300,000	789	986,392	132
Karen	1,300,000	827	1,106,635	117
Muthaiga	1,300,000	1,054	1,166,000	111
Kitisuru	1,300,000	960	1,199,416	108
Nyari/Rosslyn	1,300,000	976	1,436,452	91
Median	1,300,000	960	1,166,000	111

- Households in this class can afford to pay the monthly rental charges in all the five areas we sampled
- The most affordable renting suburbs in this zone is Runda which has a monthly rental charge of Kshs 789 per square metre
- Nyari has the most expensive rental charges at Kshs 976 per square metre and consequently unaffordable with an index of 91
- For a household with a median income of Kshs 1.3 million, the most affordable rental house/ market in this zone is hence Runda

Rental Affordability - Upper Middle

Kileleshwa has the highest RAI of 124, with Riverside having the lowest at 53

(all values in Kshs unless stated otherwise)

Estate	Median Household Income	House Rent Per Square Metre	Household Qualifying Income	Rental Affordability Index
Kileleshwa	450,000	687	362,157	124
Kilimani	450,000	622	433,002	104
Westlands	450,000	637	588,405	83
Spring Valley	450,000	584	669,311	75
Ridgeways	450,000	616	699,896	64
Riverside	450,000	889	911,577	53
Median	450,000	630	628,858	72

- Households in the upper middle area cannot afford the rental charges being levied on their houses. This is as the region has a rental affordability index of 72
- This indicates that they are living beyond their means as they spend more than one third of their income on rent
- In this zone, a household with a median income of Kshs 450,000 will comfortably rent a house in Kileleshwa which has a RAI of 124 or Kilimani with a RAI of 104
- This household will put a huge strain on their income if they were to rent a house in Ridgeways or Riverside
- In this zone, a household needs to earn a minimum of Kshs 628,858 per month to comfortably afford to rent a house

Rental Affordability - Lower Middle

The Lower Middle Region is a renters market with a median rental Affordability index of 155

(all values in Kshs unless stated otherwise)

Estate	Median Household Income	House Rent Per Square Metre	Household Qualifying Income	Rental Affordability Index
Embakasi	200,000	274	69,153	289
Komarock	200,000	239	82,723	272
Kahawa	200,000	311	163,190	205
Umoja	200,000	370	104,739	191
Kasarani	200,000	309	126,748	189
Buruburu	200,000	361	120,052	180
Donholm	200,000	346	132,047	160
Langata	200,000	415	179,837	125
South B & C	200,000	632	178,061	113
Dagoretti	200,000	432	183,545	109
Median	200,000	354	129,398	155

- A household with a median income of Kshs 200,000 can afford to rent a house in all these estates, the cheapest being in Embakasi and the most expensive in Dagoretti
- The zone has a median rent of Kshs 354 per square metre and rental affordability index of 155
- This region is thus a largely a renters market

Rental Affordability - Satellite Towns

Satellite towns have a high RAI of 198, households can afford rents in all the towns

(all values in Kshs unless stated otherwise)

Estate	Median Household Income	House Rent Per Square Metre	Household Qualifying Income	Rental Affordability Index
Ruai	200,000	246	77,837	257
Athi	200,000	320	75,575	265
Kitengela	175,000	216	84,449	207
Kikuyu	200,000	316	100,833	198
Rongai	200,000	273	118,062	169
Ngong	200,000	258	150,944	132
Ruaka	200,000	428	149,650	134
Median	200,000	273	100,833	198

- In this zone, a household with a median income of Kshs 200,000 can afford to comfortably pay their rent in all the towns
- The zone generally has a high RAI of 198, this is as the towns charge low monthly rents with a median of Ksh 273 per square metre
- The qualifying income is thus Kshs 100,000 against a monthly income of Kshs 200,000

Rental Affordability - Low Income

Households require a minimum of Kshs 44,288 to afford rents charged in this region

(all values in Kshs unless stated otherwise)

Estate	Median Household Income	House Rent Per Square Metre	Household Qualifying Income	Rental Affordability Index
Githurai	56,250	240	42,172	133
Kariobangi	56,250	266	46,405	121
Median	56,250	253	44,288	127

- The households in this region live within their means as their rental charges are less than a third of their incomes
- The median rental income for this zone is Kshs 253 per square metre, with the minimum income required to pay for rent being Kshs 44,288
- The household median income is Kshs 56,250 and they can therefore comfortably afford to pay their rents

Summary and Conclusions on Rental Affordability

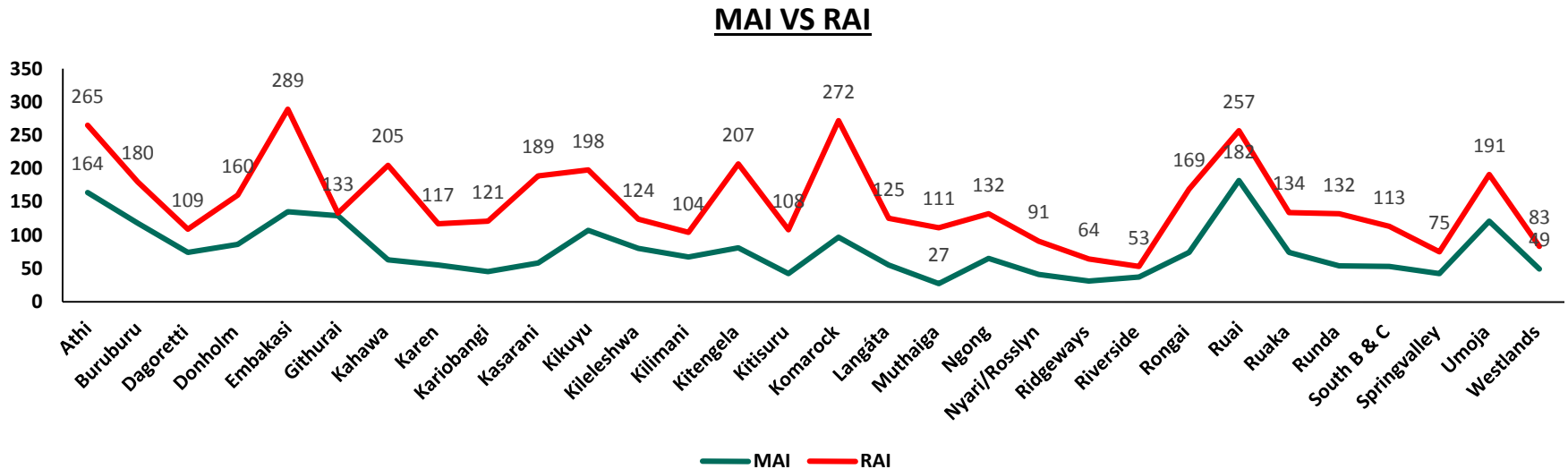
Embakasi, Githurai, Komarock and Kariobangi are the most affordable rental markets in Nairobi Metropolitan area

Income Level (Kshs)	Affordable Towns
25,000-50,000	Athi, Embakasi, Githurai, Kariobangi, Kitengela, Komarock, Ruai,
50,000-150,000	Buruburu, Dagoretti, Donholm, Kahawa, Kasarani, Kikuyu, Lang'ata, Ngong, Rongai, Ruaka, South B & C, Umoja
150,000-300,000	Kileleshwa, Kilimani
300,000-1,000,000	Karen, Kitusuru, Muthaiga, Ridgeways, Riverside, Runda, Spring valley, Westlands
>1,000,000	Nyari, Rosslyn

- Embakasi, Komarock, Githurai and Kariobangi are the most affordable rental markets in Nairobi Metropolitan area. A house hold needs to earn a median income of Kshs 25,000-50,000 to live in these estates
- The most unaffordable rental markets are Nyari and Rosslyn with a household requiring more than a million Kshs to be able to live in these estates

Rental vs. Mortgage Affordability

Rents are more affordable than mortgages in the Nairobi Metropolitan Area



- The RAI is consistently higher than the MAI
- Mortgage house prices are raised by the high interest rates levied on mortgages
- The unaffordability of mortgages is also propagating the fallacy of urbanisation theory which has many people though living in the city, going to construct houses in their rural homes
- On varying interest rates, apartments are affordable at a rate of 8%, with detached houses in all areas being affordable at 3% except Kahawa
- As the interest rate environment is not expected to change in the near future, we expect the trend to continue with more people renting as opposed to buying and the Nairobi Metro market remaining a renters market

Conclusion

Home buyers purchase houses using cash as mortgages are unaffordable

Affordability

- The areas where mortgages are most affordable are Buruburu, Embakasi, Umoja and Githurai. This is as these places have lower house prices in comparison to their incomes
- Mortgages are least affordable in Nyari, Muthaiga and Ridgeways due to high house prices as a result of close proximity to social amenities and international schools such as the German School
- Rents are affordable in all areas of the Metro except in the Upper Middle area

Stakeholders

- Relevant stakeholders should work towards making housing affordable to the general population
- The government has tried to address this through the provision of Civil Servants Mortgage Rates with a cap at 5% for a maximum of Ksh 20Million loan which could increase affordability by up to 90%
- However, purchasing houses in the upper middle and high end areas will still remain a major challenge as properties in these areas are above the Ksh 20 Million mark

Developers

- Developers have come up with alternative methods of financing such as incorporating group house purchases and paying for houses in instalments to enable people afford houses and hence purchase
- There are a number of investors purchasing developments in order to turn them to rental accomodation

Home Buyers

- Many people in the Nairobi Metropolitan area purchase houses using cash, as mortgages are unaffordable
- The source of cash is mostly savings and loans from Saccos and other financial institutions

Q&A

Appendix

A. Summary Statistics by Income Bracket

Summary Statistics – High End

High end housing mostly comprises of detached units with an average rental yield of 4.0% p.a.

High End- Karen, Muthaiga, Runda, Kitusuru

Type	Average House Size in Square Metres	Average house Rent per Month	Average House Price Per Square Metre	Average Rental Yield p.a.
4 bedroom	356	333,464	341,819	4%
5 bedroom	442	378,975	277,419	4%

- Residents of Runda, Muthaiga, Karen and Kitusuru areas mostly reside in 4 or 5 bedroom maisonettes/ bungalows this is as zoning regulations do not allow for development of apartments
- These areas are more suited for buying to live in or for sale as opposed to renting out as they have relatively low yields and high prices

Summary Statistics – Upper and Lower Middle

Rental yields in the upper and Lower Middle Income areas ranges between 5% - 7%

Upper Middle Income-Kileleshwa, Kilimani, Westlands and Riverside

Type	Number of Bedrooms	Average Size in square metres	Average Rent per month	Average Price Per Square metre	Average Rental Yield p.a.
Apartments	2 bedroom	161	107,076	126,748	6%
	3 bedroom	235	163,604	135,045	6%
Detached Units	4 bedroom	378	237,088	141,759	6%
	5 bedroom	461	314,236	135,971	7%

Upper middle area has relatively high rental yields averaging at 6.3% with the average price of a 3 bed being Kshs. 31 million

Lower Middle Income-South B, Kahawa, Kasarani, Donholm, Buruburu, Komarock, Lang'ata, Embakasi

Type	Number of Bedrooms	Average Size in Square Metres	Average Rent per Month	Average Price Per Square Metre	Average Rental Yield
Apartments	1 bedroom	56	21,522	100,219	5%
	2 bedroom	82	30,100	88,760	6%
	3 bedroom	116	36,358	74,284	5%
Detached Units	3 bedroom	121	47,448	111,000	5%
	4 bedroom	161	60,551	98,001	5%

- Houses in Upper Middle Income and lower middle Income areas are suited for renting as they have relatively high rental yields ranging between 5% and 7%

Summary Statistics – Satellite Towns and Low Income

Low income housing mostly comprises apartments with an average yield of 6.7% per annum

(all values in Kshs unless stated otherwise)

Satellite - Rongai, Kitengela, Ngong, Ruaka

Type	Number of Bedrooms	Average Size in Square Metres	Average Rent per Month	Average Price Per Square Metre	Average Rental Yield
Apartments	1 bedroom	50	16,156	76,947	4.0%
	2 bedroom	79	22,749	57,701	6.5%
	3 bedroom	116	39,149	61,450	6.6%
Detached Units	3 bedroom	133	30,256	58,214	5.1%
	4 bedroom	179	47,951	70,670	4.5%

Satellite towns have moderate yields with the price of a 3 bedroom apartment being Kshs. 7.1 million

(all values in Kshs unless stated otherwise)

Low Income-Kariobangi, Githurai,Umoja,Eastleigh

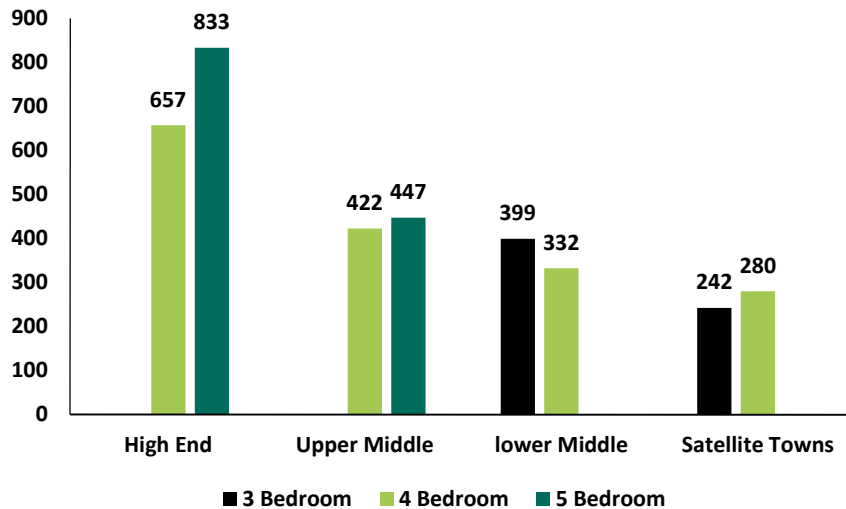
Type	Number of Bedrooms	Average Size in Square Meters	Average Rent per Month	Average Price Per Square Meter	Average Rental Yield
Apartments	1 bedroom	50	11,607	46,457	7.4%
	2 bedroom	70	19,706	56,145	6.0%

- Low income areas have high yields averaging at 6.7% with the average price of a 2 bed being 3.9 million
- Houses in these regions are suitable for renting as they have relatively high yields and their selling prices per square metre are relatively lower than the high, upper and middle income areas

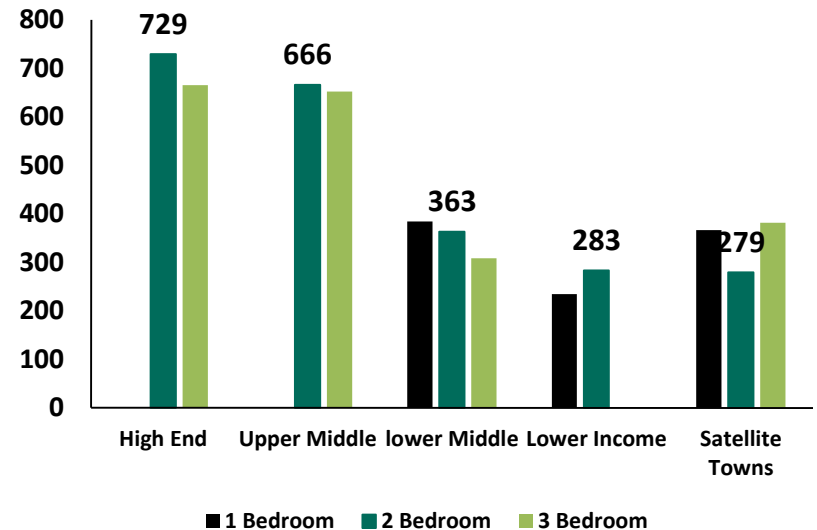
Summary Statistics - Rent

Detached units charge higher rents than apartments

Detached Average Rent Per SQM (Kshs)



Apartment Average Rents Per SQM (Kshs)

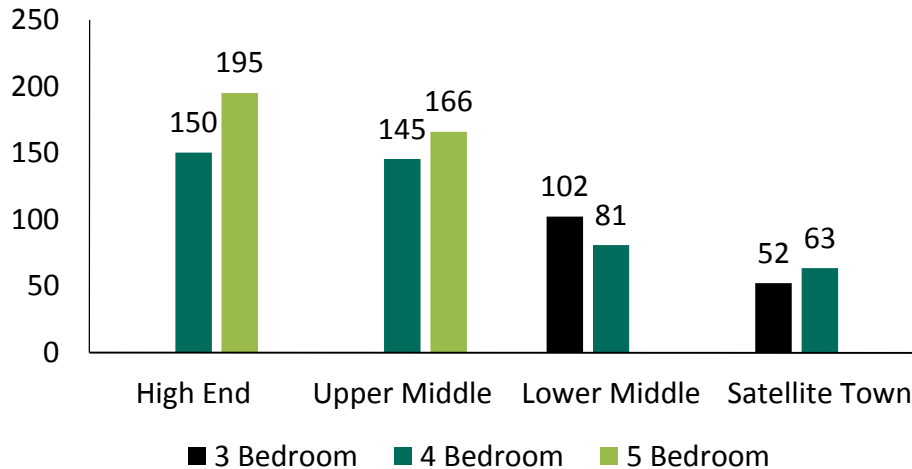


- Houses with more bedrooms generally attract higher rents per square metre as compared to houses with fewer bedroomed houses
- In lower middle income group, detached houses fetch higher rents per square metre as compared to apartments but in satellite towns, apartments fetch higher rents per square metre as compared to detached houses
- Houses in higher income groups fetch higher rents per square meter than houses in lower income groups
- Rents charged per square metre are therefore dependent on location, with the more posh a location, the higher the rent and the number of bedrooms, with the more the bedrooms the higher the rent

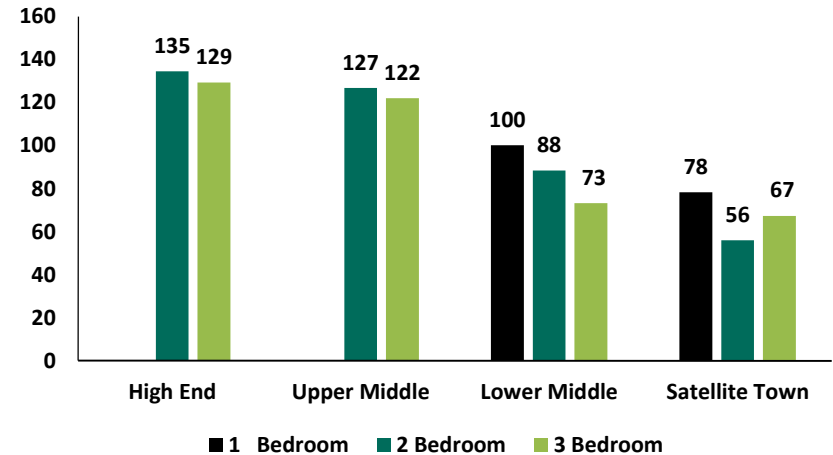
Summary Statistics - Price

High end areas have high prices attributed to the good amenities in the areas

Detached Average Price Per SQM (Kshs'000')



Apartments Average Price Per SQM (Kshs '000')

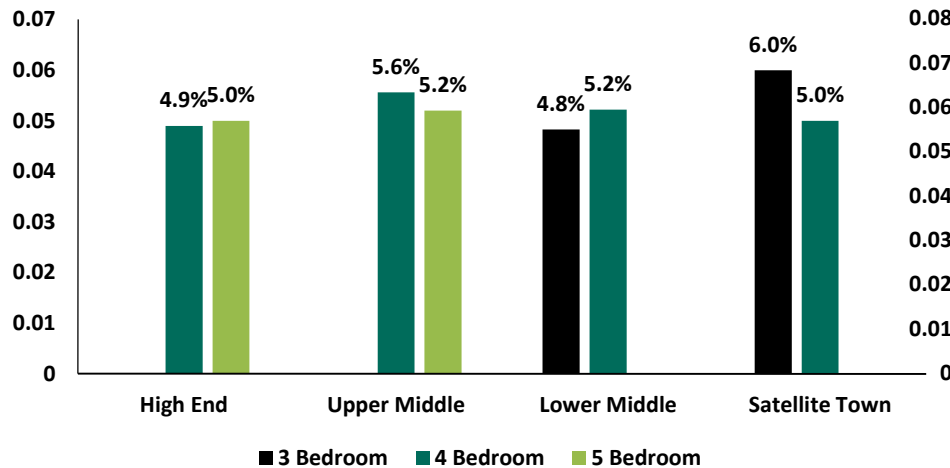


- The prices generally decrease across the classes, with the high end areas having the highest price per square meter while the lowest prices were in the lower income areas for both detached houses and apartments
- The difference in prices can be attributed to the good infrastructure, security, better amenities and lower population densities as compared to low end areas
- The key determinants of the price charged per square meter in Nairobi Metropolitan are income class, the higher the income class the higher the price and type of housing, detached houses fetch higher prices than apartments per square meter

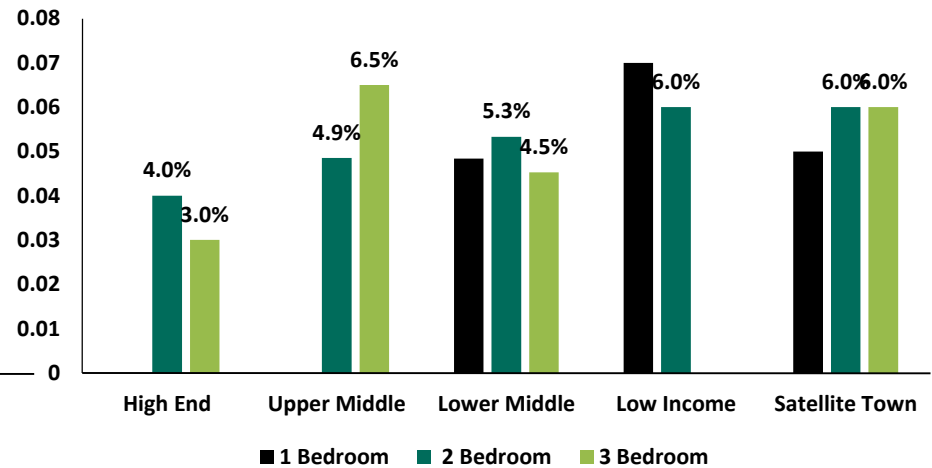
Summary Statistics - Yields

Low income areas have high rental yields associated to low selling prices in the area

Detached Average Yields



Apartments Average Yields



- For detached houses yield rates range from a low of 4.85% in high end areas to a high of 6% in Satellite towns. Satellite towns' high yields can be attributed to their relatively low house prices in comparison with the prices in the city
- For apartments high end areas have the lowest yields at averaging at 3.5%. The rate rises to 5.7% in the upper middle areas. They however drop to 5.0% in the lower middle areas. The highest yields are in the low income areas which have yields of 6.5%
- Satellite towns have three and two bed units earning 6% yields and one bed units earning 5% yields
- Satellite towns and low income are the best markets for rents as they have the highest yields 6.5% and 5.7% respectively
- The ideal markets for renting are therefore Satellite Towns and Low income areas

B. Index Results

Nairobi Metropolitan Area Mortgage Affordability Index

Location	Price Per Square Metre	Monthly Mortgage Payments	Median Household Income	Qualifying Income	Mortgage Affordability Index
Ruai	39,722	39,941	200,000	109,838	182
Athi	63,610	44,287	200,000	121,791	164
Embakasi	69,235	59,453	200,000	148,633	135
Githurai	28,938	17,376	56,250	43,439	129
Umoja	68,840	66,289	200,000	165,723	121
Buruburu	69,697	78,784	200,000	196,959	118
Kikuyu	68,966	67,972	200,000	186,924	107
Komarock	74,976	84,163	200,000	210,407	97
Donholm	75,940	100,979	200,000	252,446	86
Kitengela	64,731	78,100	175,000	214,776	81
Kileleshwa	126,430	225,274	450,000	563,186	80
Dagoretti	73,974	107,385	200,000	268,462	74
Rongai	68,076	97,997	200,000	269,493	74
Ruaka	91,307	98,595	200,000	271,137	74
Kilimani	113,892	270,673	450,000	676,682	67

Nairobi Metropolitan Area Mortgage Affordability Index Contd...

Location	Price Per Square Metre	Monthly Mortgage Payments	Median Household Income	Qualifying Income	Mortgage Affordability Index
Ngong	56,848	111,871	200,000	307,644	65
Kahawa	141,166	276,342	200,000	690,854	63
Kasarani	103,283	190,816	200,000	477,039	58
Langata	119,825	181,942	200,000	454,855	55
Karen	206,669	946,250	1,300,000	2,365,625	55
Runda	218,604	966,064	1,300,000	2,415,159	54
South B & C	157,479	163,399	200,000	408,496	53
Westlands	129,007	407,681	450,000	1,019,204	49
Kariobangi	69,966	49,460	56,250	123,650	45
Kitisuru	294,508	1,235,790	1,300,000	3,089,475	42
Springvalley	131,273	531,066	450,000	1,327,664	42
Nyari/Rosslyn	247,879	1,263,516	1,300,000	3,158,791	41
Riverside	149,644	512,357	450,000	1,280,893	37
Ridgeways	150,632	578,583	450,000	1,446,457	31
Muthaiga	680,555	1,935,920	1,300,000	4,839,799	27
Median	97,295	137,635	200,000	358,070	66

Nairobi Metropolitan Area Rental Affordability Index

Location	Monthly Rent per Square		Median House Hold Income	Household Qualifying Income	Rental Affordability Index
	Metre				
Embakasi	274		200,000	69,153	289
Komarock	239		200,000	82,723	272
Athi	320		200,000	75,575	265
Ruai	246		200,000	77,837	257
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Nairobi Metropolitan Area Rental Affordability Index Contd...

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