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DEPARTMENT OF URBAN DEVELOPMENT AND MANAGEMENT

ASSESSMENT OF PRIVATE RESIDENTIAL REAL ESTATE DEVELOPMENT

: The Case of Addis Ababa City

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Assessment of Private Residential Real Estate Development The Case of Addis Ababa City

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LIST OF ACRONYMS

AACG	Addis Ababa City Government
AU	African Union
CBB	Commercial and Business Bank
CSA	Central Statistical Authority
EC	Ethiopian Calendar
EPRDF	Ethiopian People's Revolutionary Democratic Party
GDP	Gross Domestic Product
GTZ	Gesellschaft Technische Zusammenarbeit
HCB	House and Construction Bank
IHDP	Integrated House Development Program
MWUD	Ministry of Work and Urban Development
NGO	Non governmental Organization
OAU	Organization of African Union
ORAAMP	Office for the Revision of Addis Ababa Master Plan
UN	United Nation
UNCHS	United Nation Centre for Human Settlements
UNECA	United Nation Economic Commission for Africa

Abstract

The purpose of this study is to analyze the existing nature of real estate development in terms of existing real estate regulations/directives, house production determinants, houses' affordability, house and residential pattern and developers construction practice. The study select this research area because of two main reasons:- The real estate sector is newly growing & economically very important sector in one hand and on the other hand, as a new business little is known about the sector due to absence of researches and studies in the area.

16 developers are selected out of 124 registered and 64 active developers operate private real estate houses development in the city. The research has selected 25 % of the developers, 16 developers by using both purposive and proportional stratified sampling techniques. Purposive sampling has been used in order to include potential and senior developers deliberately where as stratified proportional sampling used to give proportional chance of selection of developers at different sites and sub cities according to their representation in the total population. Questioner, interview, desktop study and observation were employed for the study.

The findings of this study has revealed that real estate developments in the city produces high quality houses which are affordable only for especial social group like Diaspora, business men, international NGO employee. It also found that there is high degree illegal form of development in the sector which can be expressed in form of informal construction of service type houses, sell of vacant land, illegal land occupation , default to pay lease payment and transfer houses with out capital gain tax (sales tax) and construction on illegal settlements. This study has also found that the sectors sustainability is under question due to lack of construction material and finance in one hand/ supply side of the market/ and un affordability of houses for the majority of the city's residents in the other hand/ demand side of the market/.

In order to ensure sustainable development of the sector the financial and construction sector of the country should expand and support the development of the real estate industry. It is also recommended that government should make regulatory reforms to relax the house construction cost where as developers should consider the lower and middle segment of the market rather than focused only on the higher section of the society.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

The world is experiencing a rapid urban transition and urbanization. At the Start of the third millennium, 47% of the world's population lives in urban areas which was only one half of the world's population at the beginning of the twentieth century (UNCHS, 2002). Within the next two decades, the world population is expected to increase by 50%.

From this projected growth, 98% is expected to occur in developing countries where the vast increase of this, 86% will be in cities which implies that construction of 38,500 housing stocks are required each day in developing countries (Erugden M, 2002). UN-Habitat report on the challenge of urbanization in the developing world also insights the immense task of providing shelter services and infrastructure for the 100 million additional people who will inhabit third world cities by the year 2002 E.C. The problem is not only reflected in quantity but also there is serious problem in quality of houses. Many of the houses are below the standard. In most cases, inhabitants of cities are slum dwellers.

Ethiopia as a third world country is not free from housing problem. This problem is severe in the capital city, Addis Ababa. In Addis Ababa, the housing deficit reaches up to 300,000. (IHDP, 2007). There are different factors that are contributing for the problem of housing. First, there is high natural increase in the population that doesn't match with the existing number of houses. Second, there is high magnitude of immigrants to the capital city that aggravate the shortage of houses. Third, the land acquisition system is very rigid and bureaucratic in its nature. Besides, the land tenure system doesn't promote housing investment in the city. Finally, until recently private investors are not attracted to invest in the housing development sectors (A. David and M. Birkey, 2006).

In response to these problems, the city administration has launched an integrated housing development program since 2004 which engages in the construction of grand (condominium) housing. The Addis Ababa City Administration has prepared a five-year housing development program in 2004 to reduce housing problem of the city by 50% (Ibid:3). This condominium housing program is a low cost housing program targeting mainly lower and medium income groups. According to this document, ultimate goal of the project is to build 250,000 houses over the next 5 years.

In an effort to address the severe housing shortage evident in Addis Ababa, the government has constructed more than 78,000 condominium units throughout the city. About two-thirds of these units are currently completed and occupied by residents, with the remaining still in need of various kinds of finishing. Launched extensively in 2005/06, this initiative is part of a grand Housing Development Program involving the eventual construction of 400,000 condominiums in Addis Ababa and other cities across the nation. (MWUD, 2007:8).

In addition to this grand housing program private sectors also play their own in solving housing shortage. This stream includes residential neighborhoods initiated by real estate developers, owner-built housing dwellings; and new home activity driven by housing cooperatives.

When come to real estate sector, it was started in mid 1990s by Ayat Real Estate followed by Berta, Country club and Habitat New Flower Homes (Wubshet Birhanu, 2005). Residential homes and neighborhoods built by real estate developers are now becoming expanding sector. The developments of these private developers range from very luxurious, high-end real estate houses that sold for multi-million Birr to more moderately priced homes.

In the last decade the number of developers joining the business increased from time to time and reaches over 600 real estate firms licensed over the past decade according to the information obtained from federal investment agency. Of these, 125 of them have leased plots from the city administration, with a total area of 2.7 million square meters in the three years beginning in 2004. So far the city government allocated about 5 million square meters according to surveys conducted by the research wing of Access Capital Services.

1.2 Statement of the Problem

As it is mentioned in the background section there is serious problem of housing in the city. The housing problem of the city has two faces; in one hand, there is severe housing shortage and on the other hand, the existing dwellings lack quality and social services.

To address these problems of housing different efforts have been made by the city government since 2004. The city government has been constructed condominium houses to solve the housing problem of the city's residents mainly lower and middle income people. Side by side with condominium housing, the government also promotes the participation of private real estate developers in the sector.

Real estate development started in mid 1990s by Ayat Real Estate Company and it becomes increasing alarmingly in the city. According to AACG land development and building permit authority document there are about 124 licensed developers engaged in this business which were allocated totally about 5 million square meter land. Private real estate development is considered by the government as a right hand partner to solve the housing problems of the city using the private sector efficiency as well as financial and construction capacity. The sector has also financial contribution for the state generating VAT, capital gain tax from the sale of houses and rental income tax. Real estate sector by nature stimulates the growth of different businesses due to its high linkage to many businesses like Micro and Small scale Enterprises /MSEs/, construction sector (material factories and retail business supply construction materials).

The sector's scope of development and its on going as well as future status is clearly dependent on ground realities related to nature of development and working environments like land ,infrastructure, finance and construction material on the supply side , and the type of houses and target customers and income of customers in the demand side. The existence of favorable condition related to the above determinants can stipulate the prospect of the sector and its development by which it requires a practical investigation in the area.

Unfortunately, there are no studies done in this regard. Many of the previous studies focused either on housing situation analysis (Tadesse G/giorgis,2000), housing demand and supply analysis (Sahlu G/egziabher, 2006) or on other types of housing development strategies like the studies done by Abay A.,(2007) on socio economic conditions of condominium residents and the studies done by Bekele M, (2003) on impediments to cooperative housing.

Moreover, the existing studies on real estates i.e. the research done by Yared A,(2006) on real estate development in Addis Ababa periphery and the research done by Mulugeta M, (2008) on the role of residential real estates in solving the housing problem focused mainly on the role of real estate developers in solving the housing problem of the city. As a result this study can feel the gap of the previous related researches as it examines existing challenges and the overall prospect of the sector by examining real estate regulations and house development practices.

1.3 Objectives of the Study

1.3.1. General Objective: - The general objective of the study is to assess the prospects and challenges of private real estate development in the city. Where as

1.3.2. Specific Objectives Are:

The specific objectives of this study are:

1. To assess appropriateness of real estate rules and regulations and their proper implementation
2. To assess the existing condition of house supply determinants
3. To evaluate affordability of real estate houses
4. To identify the main challenges and problems existed in the area.
5. To give comments and recommendations that help to improve efficiency of the sector based on the research findings.

1.4 Research Questions

The thesis focuses on the following important research questions

- ❖ Are real estate rules and regulations properly practiced by developers?
- ❖ What are the lessons learnt from the practice of real estates?
- ❖ What are the main challenges the sector has faced?
- ❖ What strategies should be considered to improve the sector and affordability of the houses?

1.5 Significance of the Study

This study will have the following two main importance; it can be used as a bench mark for further researches in the area; Future researchers can use it as a reference material; moreover, it gives the researcher research experience. In addition to these academic importances, the thesis will have a valuable contribution for Policy makers, and practitioners by giving recommendations and pointing the way how to solve problems existed in the sector.

1.6 Scope and limitation of the Study

The thematic scope of this study is limited to residential real estate; moreover, this research focuses on real estate development from developers' perspective which does not extend to include house owners' as informants. The paper has taken about 25% of the developers (16 developers) in order to make the

sample large enough to give statically significant result. The study has also assessed the real sector activity at the city level at large by examining secondary data and working environments. The physical scope of the study is limited to Addis Ababa and its boundaries

1.7 Research Method

This section deals with the overall methodology applied in conducting this research which includes research design, data sources & method of data collection, sampling techniques and methods of data analysis

1.7.1 Research Design

The research applied cross sectional research design to illustrate prospect of the sector by assessing supply side determinants, houses affordability and feature of development through approaching existing real estate developers and concerned government institutions by which results and variables are measured ones. The research applied descriptive data analysis technique; descriptive data analysis technique was applied to asses existing rules and regulations, contribution of real estates as well as existing problems and weaknesses of the sector. Both primary and secondary data are used. Stratified proportional and purposive sampling techniques have been used to draw sample developers from the total developers.

1.7.2 Data Sources

The study used both primary and secondary data. The primary data deals with data and information collected from sample developers and city officials and experts. Data like type of houses, house price, challenges faced by the developers was collected from 16 sample real estate developers using structured questionnaire and interview method. Where as data concerning to house and residential quality as well as construction practice of developers is obtained from land authority officials and experts. Secondary data was gathered from city administration reports, office and legal documents as well as from literatures on the area.

1.7.3 Method of Data Collection

The research has used triangulated data collection methods which includes Questionnaire, Interview with key informants, Personal observation and Desktops study

i. Questionnaire: - Structured questionnaire was used to gather primary information from sample home developers and city administrative officials. The questionnaire will be prepared both in Amharic and English versions and administered to sample respondents physically using diploma graduated enumerators under direct supervision and instruction of the researcher. Where as the primary data from officials will be collected personally by the researcher. The questionnaire contains both close and open ended questions.

ii. Interview with key informants:-To gather qualitative data especially on challenges and over all working environments, the research has undertaken both structured and non structured interview with key informants using tape recorder. The selected key informants are 20 experienced developers and higher officials and experts from city administration and housing agency offices.

iii. Personal Observation:-The researcher has also undertaken site visits and direct observations in order to strength and cross check the findings obtained by other methods. This refers to site visits to completed houses and sites on progress in order to assess feasibility of site and service deployments as well as off site and on sight infrastructure networking.

iv. Desktop Study:-This method of data collection has been employed to gather secondary data from legal documents, materials and office documents and to review literatures on the subject area.

1.7.4 Sampling Techniques

The research has selected developers by using both purposive and proportional stratified sampling techniques. Purposive sampling has been used in order to include potential and senior developers deliberately where as stratified proportional sampling used to give proportional chance of selection of developers at different sites and sub cities according to their representation in the total population. Using both techniques the study has taken 16 developers, 25% of the total population as research samples. 9 sample developers from bole, 4 from yeka, 2 from Nifas silk and 1 developer from the rest (kirkos, kolfe, lideta akaki) are selcted as a sample using stratified proportional sampling as shown in the table below. Out of these 16 developers, 3 experienced and dominant developers have been selected as sample using purposive selection method. (Sunshine and Ayat from bole and Gift real estate from Yeka sub city).

Table 1.1 Number of total and sample developers found in the city

No	Sub city	Amount of land holding in m2	Size of Population	No. of active developers	Sample size
1	bole	1,519,684	67	37	9
2	yeka	391,845	26	15	4
3	Nifas silk	576,446	22	9	2
4	Others(kirkos, kolfe, lideta akaki)	212025	9	4	1
5	total	2,700,000	124	65	16

* Source: AACG Land and building permit authority

1.7.5 Methods of Data Analysis and Presentation

The research employed both quantitative and qualitative data analysis technique. Analysis on quantative data(house price, type of houses, number of timely completed and late finished houses) done by using percentage, table, diagram and other important measures to illustrate the result. Besides, qualitative data analysis technique also used to analyze existing regulations and their implementation as well as existing problems of the sector.

Because of high heterogeneity in houses prices due to houses heterogeneity with regard to location ,house quality, plot size and number of rooms, average prices are used by computing average price of each developers separately and the market average price altogether for different type of houses. This average price used as a benchmark to examine houses affordability.

More over satisfactory indexes/ SI are used to summarize respondents' qualitative responses on issues like land provision, construction material availability and house quality. This index is adopted from Majid & McCaffer , 1997; cited in E. Longe (2009: 211-212 The following Satisfaction Index analysis method was used though calculating Satisfaction index.

$$SI = \frac{\sum_{i=0}^4 a_i x_i}{4 \sum x_i} \times 100$$

Where a_i = the index of a class; constant expressing the degree of satisfaction/agreement of respondents where by $i = 0, 1, 2, 3, 4$ and x_i = the frequency of responses where by x_0, x_1, x_2, x_3 and x_4 are the frequencies of response corresponding to $a_0 = 0, a_1 = 1, a_2 = 2, a_3 = 3, a_4 = 4$, respectively

Table 1.2. The Rating classification

Perception Scales	Classification Values
Very low /Too unattractive/Very Dissatisfied	$0.00 \leq SI < 12.5$
Low / Unattractive/ Dissatisfied	$12.5 \leq SI < 37.5$
Moderate/ In different	$37.5 \leq SI < 62.5$
Good /Attractive/ Satisfied	$62.5 \leq SI < 87.5$
Very good / Very attractive/Very Satisfied	$87.5 \leq SI < 100$

On the point scale, the ratings given to each group are as follows: (0) Very low/Too unattractive /Very Dissatisfied (1) Low / Unattractive / Dissatisfied (2) Moderate/In different (3) Good/Attractive / Satisfied (4) Very good/ Very attractive /Very Satisfied. For ease of interpretation, each rating is given the following denotation:

Very low (VL), Low (L), Moderate (M), Good (G) and Very Good (VG)

Note that the above perception applied inversely for construction material price by which “Very high” on the level of construction material price denotes “Too un attractive”, “High” means “Un attractive” , “Low” means “Attractive” , and “Very low” means “Too un attractive” ”

1.8 Organization of the Thesis

The thesis contains four chapters; the first chapter contains introduction part which includes:-background of the study, statement of the problem, Objectives of the study, Research questions, Research methodology, Scope of the study and Significance of the study.

The second chapter presents a brief theoretical and empirical discussion on the concept of residential real estate and related literatures.

The third chapter presents, analyzes and discusses the major findings of the research where as the last chapter (chapter four) presents conclusion and recommendation on the research problem.

CHAPTER TWO: LITERATURE REVIEW

In this chapter, theoretical concepts of housing in general and residential real estate housing in particular will be discussed. This includes the definition and concepts of housing, meaning and characteristics of real estate business which used to relate the nature of the existing real estate development in the city. Approaches, theories, definitions and general beliefs concerned to the subject area are also reviewed.

2.1 Conceptual Definitions

This section devotes to definitions on important concepts related to real estate development i.e definition and the concept of housing as well as meaning of real estate development.

2.1.1. Definition and the Concept of Housing

Different literatures discussed about the definition and concept of housing in different ways. Although in its literal meaning, housing refers to any type of buildings that provide shelter for a people, in its broader sense it encompasses developmental, psychological, health, social and economic aspect of human beings.

Wikipedia encyclopedia defines home as a place of residence or refuge. It is usually a place in which an individual or a family can rest and be able to store property.

W. Neilson (1984:9) also defines it similarly; a home is a building that used as a shelter & protects people from different damaging elements like cold, rain, sun and heat.

And according to Ron Blenk & Andrew Goland (2003: 8) home is a residential environment which includes the necessary services, equipments and other necessary elements for the physical well being of the family in addition to the physical structure the family uses.

Although the above two scholars describe housing as physical building and its accommodation, in its broader meaning, it consists of different infrastructures, community services, and different housing amenities and utilities that are necessary for good house which can provide sufficient housing facilities and enough space for every member of the family to have privacy and freedom (The world book of encyclopedia).

Housing also accommodates adequate security, secure of tenure, structural stability, adequate lightning, ventilation, adequate infrastructure such as water supply, sanitation and waste management facilities, suitable environmental quality and health related factors as well as adequate space to give adequate privacy which all of are available at affordable cost (Wiley Neilson, 1984: 4).

Morka R. (2004: 11) also refers houses as a basic and indispensable human need which determines the socio economic well being and healthy living conditions of residents.

All these definitions of housing strengthen UN Habitat Agenda 21, 1996 which states housing as the basic human right and incorporating a broader context which fulfills the basic requirements of urban infrastructure and services.

In Ethiopia context, ORAAMP, (2001: 3) also referred housing as the residential neighborhood which accommodates the services required. According to this plan paper a housing component at the structural plan level consists of not only the residential units but also the supporting services and compatible urban functions. Housing in this context consists of:

- Residential units for all income groups(high, middle and low)
- Streets, green areas & open spaces, recreation centers, schools, health services, workshop places, market areas, shops and non polluting small scale manufacturing. This definition of housing is the broadest definition which includes different infrastructures and services necessary for one neighborhood in addition to the usual definition of housing which refers housing as physical building and accommodations in it.

All these literatures show that the term housing is defined not only as a 'shelter' or 'household facilities' alone, but also comprises a number of facilities, services and utilities which link the household to the community in the region in which it involves. Indeed, adequate housing for all is among the three generations of human rights.

Housing can also be considered as an identity, a security, collateral, an asset, a capital, saving and the like. It includes the site (physical environment) and settings, neighborhoods, community, municipalities (how and where to build, legal aspects, such as regulations and, standards and planning issues) and

public services, habitability and accessibility for different services, rights to sell, buy, transfer, lease and mortgage.

Furthermore, housing is associated with life style and influencing way and level of living including important factors such as health and life expectancies of a society. Hence urban housing policies should entertain these issues. It is also important to consider these components of housing to get a complete clear picture of the sector's development. It is useful to have a multi directional and integrated approach of housing development.

2.1.2. Meaning and Nature of Real Estate Development

The term real estate often uses synonymous with real property which also sometimes called reality in contrast to personal property (personality)

Blackslaw dictionary defines "real property" as land with a permanent property erected growing up on it. This implies that real estate includes not only the face of the earth but everything of a permanent nature over it which includes any building, fixtures and improvements.

Hoywood and Jacobus (1990:7) also define the same way, referring real estate as a land and any property affixed to land with the intent of improving the land and the space including the land surface, above and under space are treated under it. This includes houses, fences, pipelines, roads and any buildings and landscapes. As a group these developments are referred to as improvements because they improve, develop or add value to the land.

The term "real estate" is also defined as land including the space above and the surface beneath it (John McCdonalld and Danael P Mcmilan, 2007:281). This one is broader definition than black slaw definition which considers the land, land surface including trees & reveres, physical improvements (i.e. road) and royalties under the surface of the earth including mines, minerals, mineral springs, oils and gases.

Under Australian GST act "real property" or "real estate" refers also any interest in or right over land, a personal right to call or be granted an interest over land or a licensee to occupy land or any other

contractual right exercisable over or in relation to land and associated property affixed to it(Ibid)

From these definitions we can conclude that real estate refers to the land and any immovable property attached to it permanently and associated right to use and transfer. Real estate in this research refers to the residential houses with their associated infrastructures, amenities and social services.

When we come to the sector, real estate development is a game for the entrepreneur who will test skills of entrepreneurship, prediction, and decision making. It is a game where amateurs create a tremendous amount of confusion and professionals make significant profit (Jack Harvey, 2006:171)

John m Clap and Stephan D. Phener (2003, 17) also strength this idea. They indicated that real estate is a business which some entrepreneurs earn abnormal profits to their immorality and others incurred heavy loss due to their inefficient & unwise administration of the business and poor understanding of the business environment. It is a process that involves leadership, market research, marketing, public relations, construction designing, financing, accounting and property management. It is also like other businesses one has to obey to ethical and moral laws of our society through codes, regulations and ordinances. It is a business where products created can generate regular cash inflows for the developer and investments over long period of time. It can generate sustainable profits through developing and add the value of existing plot of land.

In other words, real estate development is a business Professionals can benefit from the investment by applying their professional knowledge and develop the land at neighborhood bases which accommodates different infrastructures, social services, utilities and amnesties which are essential for self sufficient neighborhood. To carry out the business efficiently, the developers should adjust themselves with the existing and the current technology, business environment, socioeconomics, demographics architecture, laws, entertainment and industry by reflecting these changes in the planning process.

Understanding real estate investment is also crucial because it usually involves a substantial investment and a long-term one and has a vast implication on the development of the city and the housing sector.

¹Hence it is important to explore the basic and unique characteristics of the sector. As it is discussed by Ian Woychuk, (2001) Real estate Investment has the following important characteristics.

1. *No fixed maturity*

Unlike a bond which has a fixed maturity date, an equity real estate investment does not normally mature. In Europe, it is not uncommon for investors to hold property for over 100 years. This attribute of real estate allows an owner to buy a property, execute a business plan, then dispose of the property whenever appropriate. An exception to this characteristic is an investment in fixed-term debt; by definition a mortgage would have a fixed maturity.

2. *Tangible*

Real estate is, well, real! You can visit your investment, speak with your tenants, and show it off to your family and friends. You can see it and touch it. A result of this attribute is that you have a certain degree of physical control over the investment - if something is wrong with it, you can try fixing it. You can't do that with a stock or bond.

3. *Requires Management*

Because real estate is tangible, it needs to be managed in a hands-on manner. Tenant complaints must be addressed. Landscaping must be handled. And, when the building starts to age, it needs to be renovated.

4. *Inefficient Markets*

An inefficient market is not necessarily a bad thing. It just means that information asymmetry exists among participants in the market, allowing greater profits to be made by those with special information, expertise or resources. In contrast, public stock markets are much more efficient - information is efficiently disseminated among market participants, and those with material non-public information are not permitted to trade upon the information. In the real estate markets, information is king, and can allow an investor to see profit opportunities that might otherwise not have presented themselves.

5. *High Transaction Costs*

Private market real estate has high purchase costs and sale costs. On purchases, there are real-estate-agent-related commissions, lawyers' fees, engineers' fees and many other costs that can raise the

effective purchase price well beyond the price the seller will actually receive. On sales, a substantial brokerage fee is usually required for the property to be properly exposed to the market. Because of the high costs of "trading" real estate, longer holding periods are common and speculative trading is rarer than for stocks.

6. Lower Liquidity

With the exception of real estate securities, no public exchange exists for the trading of real estate. This makes real estate more difficult to sell because deals must be privately brokered. There can be a substantial lag between the time you decide to sell a property and when it actually is sold - usually a couple months at least.

7. Underlying Tenant Quality

When assessing an income-producing property, an important consideration is the quality of the underlying tenancy. This is important because when you purchase the property, you're buying two things: the physical real estate, and the income stream from the tenants. If the tenants are likely to default on their monthly obligation, the risk of the investment is greater.

8. Variability among Regions

While it sounds cliché, location is one of the important aspects of real estate investments; a piece of real estate can perform very differently among countries, regions, cities and even within the same city. These regional differences need to be considered when making an investment because your selection of which market to invest in has as large an impact on your eventual returns as your choice of property within the market.

Wikipedia Encyclopedia, (2007) also mentioned the following points as particular and unique characteristics of the real estate market.

Durability - Real estate is durable. A building can last for decades or even centuries. Because of this, real estate markets are modeled as a stock/flow market. About 98% of supply consists of the stock of existing houses, while about 2% consists of the flow of new development. The stock of real estate supply in any period is determined by the existing stock in the previous period, the rate of deterioration of the existing stock, the rate of renovation of the existing stock, and the flow of new development in the current period. The effect of real estate market adjustments tend to be mitigated by the relatively large stock of existing buildings.

Heterogeneous - Every piece of real estate is unique, in terms of its location, in terms of the building, and in terms of its financing. This makes pricing difficult, increases search costs, creates and greatly restricts substitutability. To get around this problem, as cited in encyclopedia economists like Muth Robert (1960) define supply in terms of service units, that is, any physical unit can be deconstructed into the services that it provides. Olsen (1969) describes these units of housing services as an unobservable theoretical construct. Housing stock depreciates making it qualitatively different from a new building. The market equilibrating process operates across multiple quality levels. Further, the real estate market is typically divided into residential, commercial, and industrial segments. It can also be further divided into subcategories like recreational, income generating, area, historical/protected, etc.

High Transaction costs - Buying and/or moving into a home costs much more than most types of transactions. These costs include search costs, real estate fees, moving costs, legal fees, land transfer taxes, and deed registration fees. Transaction costs for the seller typically range between 1.5 - 6% of the purchase price. In some countries in Continental Europe, transaction costs for both buyer and seller can range between 15 - 20%.

Long time delays - The market adjustment process is subject to time delays due to the length of time it takes to finance, design, and construct new supply, and also due to the relatively slow rate of change of demand. Because of these lags there is a great potential for disequilibrium in the short run. Adjustment mechanisms tend to be slow, relative to more fluid markets.

Both an investment good and a consumption good - Real estate can be purchased with the expectation of attaining a return (an investment good), or with the intention of using it (a consumption good), or both. These functions can be separated (with market participants concentrating on one or the other function) or can be combined (in the case of the person that lives in a house that they own). This dual nature of the good means that it is not uncommon for people in real estate, that is, to invest more money in an asset than it is worth on the open market.

Immobility - Real estate is locationally immobile which makes Consumers come to the good rather than the good going to the consumer. Because of this, there can be no physical market-place. This spatial fixity means that market adjustment must occur by people moving to dwelling units, rather than the movement of the goods. For example, if tastes change and more people demand suburban houses,

people must find housing in the suburbs, because it is impossible to bring their existing house and lot to the suburb (even a mobile home owner, who could move the house, must still find a new lot). Spatial fixity combined with the close proximity of housing units in urban areas suggests the potential for externalities inherent in a given location.

Besides these mentioned characteristics, real estate development is highly considered as a multidisciplinary activity/operation. This multidisciplinary feature of the sector is briefly elaborated below under the following sub section

2.1.3 Actors in Real Estate Development

There are different actors participated in real estate development, these actors include land developers, property developers, financial institutions, buyers, tenants, real estate agents, construction firms and government (Administrative institutions)

Literatures mention the above actors as important stakeholders which can shape and influence the level and nature of development of the sector.

According to John Ratcliff (2004:71) there are 3 group of actors in real estate development; the space consumer groups, the space producer groups and the public sector. According to him the space consumer group includes individuals or group space users attempting to rent or buy real estate spaces and houses whereas the space product groups includes all forms of expertise necessary to convert from space time to money time, These groups referred as land and house developers.

The public sector refers to the government which functions as regulator and facilitator of the house development /construction. The public sector regulates developers' practice in a manner that the nature of development ensures secured and sustainable shelter development, environmental protection and ensures employment opportunity; The government also facilitates the development of the sector through the provision of serviced land which embodies the necessary off sight infrastructure including water pipes, electricity, road and street lights,

Governments in all developed countries intervene in the housing market and do so in a variety of ways. Intervention takes the form of subsidies, taxes, direct provision and a range of regulation, in order to influence prices, levels of house building and the allocation of housing (Ian Harris 2003:6)

Encyclopedia Wikipedia, (2007) also stated these actors with similar way like Ratcliff but with slight difference, it defines the actors based on market analysis. Like Ratcliff there are supply and demand side actors which related to the space product and space consumer group. But the difference is it considers facilitators /i.e. brokers, banks, lawyers, real estate agents and consultants instead of public sector. These stakeholders used to facilitate the purchase and sell of houses, owners and users represent

The demand side actors, users are the immediate consumers or buyer whereas the owners could be any people who purchase the property as an investment to use it or to live in and utilize the surface, These people popularly named as owners users since they may not necessary buy the house for living/residence rather they also rent it out to someone, These actors have a hand on the type and nature of the house as developers target them in their construction system and process. Developers consider clients' preferences related to house type, residential pattern, and socio-economic mix of neighborhood, construction material and quality of constructions subject to regulatory standards.

In the supply side, the main stakeholders are land developers and house builders. Land developers refers to organizations that acquire "raw" land and make infrastructure developments, sub divide it and selling of the lots to real estate developers (John Mccdonalld and Danael P. Mcmilan 2007:279) .This land development requires the assembly of smaller parcels of land in to a larger parcel and selling it to the developer. A goal of the developer is to develop the land for its " highest and best " use that brings the highest return for the developer at a given legal and physical constraints usually determined by (the legal constraints) zoning ordinances and land use plan which determines the permissible use of land : Land developers are also responsible for plot classification and space management .It has a regulatory relations with the government and financial customer relations with financial institutions .

The other two supply side agents are house developers and renovators. The house developers commonly called as "real estate developers". Real estate developers are the most determinant actors in house development process as they involve from production to property disposal stage .Whereas in the disposal stage, such agents like brokers, lawyers and financial institutions participate to facilitate house sales. The main task of the developer is constructions and marketing houses. Developers most of time deserves external financing due to their speculative behavior by which they produces a properly in advance of orders unless the lender requires that tenants /buyers shall be identified before projects started (Renaud Bertrand. 1984:25).

Financial institutions are considered as facilitators in this way of interaction. They financial support land and house developers in loan financing in addition to permitting mortgage arrangements for effective buyers. They are critical partners of both parties throughout the process of house development, these agencies include banking institutions commercial banks, saving and credit associations, insurance companies and financial service companies, mortgage banks and life insurance companies ([http://en.wikipedia.org/wiki/real estate-economics](http://en.wikipedia.org/wiki/real_estate-economics))

In addition to the above mentioned actors, construction firms and building companies are considered as major stakeholders working independently or under developers.

2.2 Theoretical Review

In this sub section different theories and literatures related to housing affordability, real estate financing and house market are discussed.

2.2.1 Affordability of Housing

In this chapter some theoretical concepts of housing affordability are reviewed. This includes the meaning and scope as well as measurements of affordability.

Affordability is an ambiguous term; affordable to which part of the society? For whom does affordability has a meaning and has not. Accordingly affordability has multi dimensional meaning more of it requires subjective judgment of ones. Different authors define affordability based on perception and conditions in which they existed Affordability according to Davidson and Payne cited in Kamete (2001:31) affordability simply it refers the “ability to pay”, this kind of definition is simple and simultaneously correct & misleading, because in the later case it seems simple and achievable even though it is not. The ability to pay for housing determines the failure or the success of any strategy aimed at housing, while this definition refers the whole system in the provision of affordable housing.

Accordingly, Gvrddpd, (2006: 2) defines housing affordability in terms of a price or a rent that exists in the real market that do not go beyond 30% of the total income of the household in relation to the low and often to middle income group. Thus, affordability has directly connected to proportion of income. In the case of USA and Canada, it is a commonly accepted guideline for housing affordability. In general, the housing cost consideration in general includes taxes and insurance to enable owners and sometimes include utility cost. When the monthly carrying cost of the home exceed 30% to 35%

household income, housing considered as unaffordable for that household. This definition stresses that affordability in terms of the proportion of income especially for low income groups.

According to Michel Easton(1993: 21), low income people defined as a group of people representing whose average monthly earning is below the specified minimum level of income needed to satisfy their basic needs Michael Easton (1993: 13) also defined affordability of housing as measure to “secure that we need and desire with the resources we have or we obtain”. Therefore, according to this definition affordability refers the whole system in which the housing provision conducted, to be specific; the income of the individual families, housing provision system and the cost.

Moreover, O Dell and Smith (2000) defined affordable housing which is accessible to people whose income doesn't enable them to buy or rent appropriate to their needs in the free housing market, though the same authors add affordable housing as not necessarily low cost housing, according to these authors affordable housing is the measure of capacity of family to purchase construct available housing, the rough measure of the concept is the price income ratio which compromise the average price of a house with yearly income of the house hold. According to GTZ affordable housing is defined as the proportion of household income which holds, especially those who seek new dwelling units, plus the house hold assets and equity which households might be able to convert to housing (GTZ-IS, 2005). Thus, here in Ethiopia, in conclusion the term affordability is attempted to address the perceived high cost of housing without acknowledgment that affordability is also heavily influenced by the house hold incomes.

The definitions adopt for affordability influence the concepts and measurements of affordability, various literatures describe there are two types of measures of affordability, these are the conventional and shelter poverty methods. As defined by Michael (1993), conventionally one states that affordability means the housing cost consuming only 30% of the household income. But this author argues that conventional method of affordability is not well addressing the shelter needs capacity of a given person or group. In real sense his argument began by stating the shelter affordability method is more realistic in expressing the affordability of housing than the conventional method. In that shelter affordability takes in to account the non housing costs left after paying for housing. This concept of housing recognizes that universal perception do not recognizes or measures affordability e.g. a household living below poverty line couldn't afford to spend 30% of its income on housing and still adequately maintain

its non income housing needs. According to this argument, shelter affordability is applied as a method if the house hold can not meet its non housing needs including food, clothing, medical care and transportation at minimum level of adequacy.

With regard to factors affecting affordability, Kamete (2001:32), indicated that the ability to pay has two sides:- the external and internal sides in relation to the target population. For him the external factors are those which associated with the project that has to do with cost of housing. This refers to land acquisition, the infrastructure, both on and off site planning designing, administration and community facilities, and other factors that affect the project like interest rates, amortization periods and subsidies. Therefore the external factors that affect affordability have mainly linked with development of infrastructures and means of financing.

Similarly, Kamete (2001:32) also forwarded the internal factors that affect affordability have to do mainly associated with 'socio-economic' condition of the target population. This mainly refers to the economic characteristics of the target population. Therefore, this internal factor includes employment opportunity, kinds of occupation & incomes, expenditure patterns, and any factor that reflects the economic character. The second factor has to do with social character of the community which refers the house hold size, family structure, the needs, customs, aspirations and priorities are important, as they will determine to a large extent the behavior of the group. Besides, the two are highly intertwined and one determines the other by which the social characteristics determine the willingness of the society to pay while the economic factor refers the ability to pay. The other main factor to be considered related to housing affordability is economic growth; the demand for housing is dependent up on income, therefore higher economic growth and rising incomes people will able to spend more on houses which increases their demand for houses and pushing up prices. In fact, demand for housing is often noted to be income elastic (luxury good), rising incomes leading to bigger % of income spent on the houses. Similarly, Unemployment and people's confidence are also other factors clearly affect house ownership/affordability. When unemployment is raising, less people will able to afford house but the decline in confidence will mean well to do people with job may not pay for house due to their lack of confidence to spend their income on house. Market interest rate is another important factor that affects the housing market (www.economic selling.com).

2.2.2 House Market

The peculiar nature of house /property (i.e its durability high cost of construction, high expenditure location difference (immobility) and construction lag) makes the property market different from other goods and financial markets. We can evidently prove this from the following literatures.

Stephen Malpeze, (1987:102) stated this condition as follows “Because property markets are illiquid with high transaction cost and heterogeneous investment costly and imperfect information and demanded by the entire household it is vulnerable for market imperfection not observable in other markets”

Denise William (2006:11) also stated that the economics of housing markets are far more complex. It indicated that the several unique features of the house market such as fixed location, their long life and the fact that they are increasingly rewarded as an investment good makes the conventional market economies in appropriate.

Different literatures also explain this market imperfection in different ways.

As Haibin Zhu, (1994:2) indicated due to the in elasticity of the supply of housing due to construction as long time of planning, regulator procedures and intensive local supply, the increase in demand for housing is not proportionally satisfied which results in price rise which is not reflected in a well functioning market by which the increase in demand calls for the increase in supply keeping prices stable.

John M. Clap and Stephen D. (2003:17) also indicated the market imperfection similar way to Zhu. They indicated that property markets are more likely to deviate from their long run fundamentals. They mentioned different factors as the cause of fluctuations which includes low liquidity of the market because of the existence of high transaction cost, sticky rent, lack of market transparency, use of real estate assets as collateral and borrowers reliance on external finance.

Ron Blenk & Andrew Golland (2003:15) also clearly indicated this short run supply shortfall to demand. These writers showed that the price of the property is determined by the existing stock price interaction to demand because of the durability of the existing stock and low production rate of a

property over a given period of time. In other words, new supply has relatively little influence on price for all practical purpose, supply from old stocks dominates the market which implies price is determined by demand by which the new built houses prices are set in reference to the existing ones. They also indicated that in the long run however the accumulated flow of new stock has significant impact on the market and market price. In the long run, supply of house is elastic; studies also showed that about 98% of house is comprised of existing stock and about 2 % consists of flow of new buildings (William C, 1996.17)

The rigidities of the supply also affected by local legislative and structural factors as well as on tax and subsidy policies as well as regulatory policies.

From the above discussion we can understand that the sluggish response of supply to demand causes price hike in the short run While the property price in principle equal to the discounted present value of the expected stream of income of value of all future services (i.e. housing) on the purchaser/ owner side and the construction cost on the supplied side.

There are also other sources of market imperfections in the property market in addition to the above mentioned supply rigidities & intrinsic nature of the market.

One of these sources market imperfections is resulted from the “myopic” decision of optimistic buyers and investors. The speculative myopic buyers can affect the property price in two ways. First because of their expectation of a continuous price rise in the future, these optimistic buyers are willing to pay a higher price over and above the current value of the property or the expected property service. On the other hand their increase in demand for a property driven by a speculative motive pushes up the demand, compared to the existing stock of supply which ends with price rise of a property (John M. Clap and Stephan D. Phener (2003:49),

The myopic investors’ decision is also other source of market imperfection. As Heiring and Watcher,(2007) show, myopic investors’ decision not to sale short in expectation of high return in the future causes supply shortage in the short run and increases the price of the house. According to them this myopic decision of investors has also negative impact to investors themselves. This is because the short run price much higher over and above the replacement cost of the property initiated developers to

build more houses which results in cumulative stock flow in excess of demand in the long run which brings a decrease in price (S. Malpezi, 1997).

This myopic decision is also observed by financial institutions. As Denise Williams (2006) indicated the steady increase in the real estate price makes the repayment record of real estate loans attractive. Hence during real estate boom lenders can build false sense of security and confidence as real estate prices are rising and loan to value ratios on outstanding loans decline. But this portfolio security will eventually turn to bankruptcy with long run excess supply of real estate assets.

Literatures also indicated that house market depends on the market and price of other portfolio components of household wealth. According to this theory speculative demand for a house decides the demand for a house compared to the price of other equities portfolios. This speculative demand is the reflection of the demand for a house as investment good by consumers comparing wealth effects (Jack McKenzie, 2005:35)

All of the above discussions show that the distinctive dynamics and intrinsic characteristics of the market have a huge impact on property market in addition to the conventional/explicit factors like income, interest rates, credit availability and construction cost. Although such market imperfections are pronounced in this sector, it doesn't totally mean the market is not determined by demand and supply factors. Hence it is important to discuss these demand and supply side determinants of the real estate market.

2.2.2.1 Demand for Housing

There are different factors that determine the demand for housing like demography, income, price of housing, cost and availability of credit, consumers' preferences, investor preferences, price of substitutes and price of complements. From these determinants, four basic ones are discussed below.

The 1st main determinant is a demographic variable which refers to the population size and growth. The more people in the economy, the greater the demand for housing (Dolan, E.G. 1992:28).

Income is also another important determinant. Though as the basic good the income elasticity of demand for house is inelastic, there is positive relation between the two; If income increases the demand for houses also rises by a certain level. Empirical measures on income elasticity of demand in north

America also support this fact .The study done in U.S.A and Mexico 14 states on income effect on house demand in 1964 gives the result with the range of 0.5 to 0.9 (Olsen Edgar, 1991:31)

The price of housing is also an important factor. The same study showed that the price elasticity of the demand for housing services in the same study estimated as negative 0.7 which shows that a unit change in price brings a 0.7 change in demand for house and housing services .

The last factor is the cost and availability and credit. It is obvious that the availability of credit increases the financial capacity of people to finance their housing expenditure that could be homeless otherwise because of the high investment cost of housing .The increase in financial capacity of households in turn brings leads to the increase in demand for house. But the availability of credit by itself is not sufficient condition to address the financial problem of households. But the finance should also be available at substantial interest cost; usually as interest (cost of credit) is lower and more credit is available, households demand for house increases and vice versa.

2.2.2.2 Supply of Housing

Supply is the amount of commodity producers or sellers are willing and able to offer for sale at a given price at a particular period of time. When come to housing, the quantity to be offered for sale depends on house price and existing rate of house construction. Because house construction takes long period of time real estate supply is in elastic in the short run. Hence, unlike other goods its supply depends on the previous time price which is the function of demand and supply at that period (John Ratcliff, 2004).

Aside price a number of other variables may be important in determining the supply of a product and it is important that these are taken into account in the supply function of that product. A supply function describes the relationship between the amount of a product sellers are willing and able to offer for sale and a set of variables that determine it. These variables include **Technology, goal of the firm and Input Price and availability** (John M. Clap and Stephan D. Phener , 2003).

Goal of the Firm:-In economic theory firms are usually assumed to have a single goal i.e. profit maximization. Firms could, however, have other goals either in addition to or as a substitute for profit maximization. If firms value size, they may produce and supply more than the profit-maximizing

quantities. If for example firms worry about their image in society, they may forsake highly profitable activities when there is a major public disapproval. They may therefore readjust to meet the requirements of customers. This will dictate the direction of supply.

Technology:-As a determinant of supply, technology must be interpreted broadly. It embraces all know-how about production methods, and not merely the state of available machinery. An improvement in technology would increase supply, since producers will be willing and able to supply a larger quantity than before at each price.

Input Price:-Its supply also depends on existing rate of house production which is determined by the conditions and price of inputs. All things that a firm uses to produce its output, such as land, construction materials, labor, financial capital, machine and others are called the firm's input. Other things being equal, the higher the price of an input used to make a commodity, the less will be the profit from making the commodity, given the cost. Thus the higher the price of any input used by a firm, the lower will be the amount that firm would produce and offer for sale at any given price of the commodity. Increase in wage, interest, rent and price of materials have the effect of increasing cost and hence reducing supply. The availability or supplies of these inputs also affect the amount of houses constructed and supplied directly and indirectly (by affecting input prices). Administrative factors like regulatory frameworks, financial structure, tax treatment, subsidies and incentives are additional factors that could affect the supply of house in the real estate market.

2.2.3 Real Estate Financing

Generally there are 3 means of financing real estate development by the private sector: financial institutions loan, developer's equity and clients' payment.

One means for a developer to finance real estate projects is to use investors own capital. Brueggeman, W. and J. Eisher, (2004:14), indicated investors capital is the primary and the most sound financial stream of developers. Potential investors usually used their own capital and practice a built sell construction practice.

In this option of financing, developers usually finance the initial investment and try to finance the rest

cost by using the profit from the sale of the built up flats. This sort of financing enables a developer to have a better market share by fixing lower price as it is interest free investment. On the other hand the developer himself bears the risk of investment.

In addition of self financing it is common for a developer especially for small developers to use outside financial sources like bank loan and clients payment to finance real estate projects. As literatures show, developers choose outside financial sources not only because of lack of capital but because of their risk free behavior.

Real estate developers operate with minimum capital in order to shift as much as risk to the lender. A home developer can get this financial loan sources like commercial banks, mortgage, bankers, life insurance companies and saving banks using collateral, assets (John Clap and Stephan d Phener, 2003:25)

But the problem with bank loan is, their low degree of amortization because of their short period of due date. As it is indicated by (Johnson Thomas, 1989: 28), the loans covered by commercial banks and other financial institutions are usually short term that should be disbursed at the completion of constructions. This is because the interest rate paid to the depositors is covered from borrowers money which are short term and repayable at demand. In other words the underlined due date of depositor money restrict the long term lending to developers.

Commercial banks are the main lender institutions to finance developers' projects. They lend to developers to finance developer big tracts of land as well as to those who build and sell houses and to individual buyers. Banks try to protect themselves by reacquiring low loan to value ratio, take out commitments for long term financing and applying strict loan covenants that used to protect themselves against the risky behavior of their clients/developers.

Saving and loan associations are the other important source of finance in developed countries. These organizations are also known as saving associations, building and loan associations, cooperative banks in New England (Borio, Claudio (1995:13). These institutions are the primary source of finance for a large segment of American society home owners & developers. These institutions use individual saving funds to make long run amortized loans to home buyers and they are locally owned and privately managed home financing institutions.

The third financial alternative of developers is using clients' payment. This means of financing practiced by developers apply sell and build construction practice. The clients are required to cover the full or partial cost of construction including land and land development cost (Johnson Thomas, 1989: 30)

Banks loan financing is not limited to developers. As indicated by watcher, there are different ways of financing which includes

- Holding of real estate assets in the banks' portfolio
- Lending to customers for real estate purchases (often collateralized)
- Lending to non bank intermediate such as fiancé companies which engaged in real estate financing.

Mortgage banks and brokers are also involved in real estate financing. These institutions are one means of finance for a long-term loan in developed countries. They also provide loan term loans to individual home buyers. Mortgage bankers could be individuals or companies who originate mortgage loans and sell them to developers and investors at favorable interest rate.

Concerning to insurance companies, they customarily lend investment loan and adjust their portfolios from time to time to time to reflect changing economic conditions.

2.3 Empirical Studies

The previous studies focus more on real estate market. They mainly deal with efficiency of the market for the residential real estate. For instance the study done by Karl Lgunterman and Richard Smith (2007) focuses on the market for the single family residential real estate where the potential for inefficient pricing is, arguably, most sever .The paper begins with the notion real estate market is efficient with in the sense that current prices will fully reflect available historical price information. It is based on a counter hypothesis for the assumption profitable trading strategies can not be developed on the basis of past price information referred as the "weak form" of the efficient markets hypothesis. This is in contrast to adaptive expectations effects discussed above, which implies that investors could have capitalized on market imperfections to earn abnormal rates of return during such a period. The evidence indicates no relationship of returns with the increase in the price of properties due to lags of one to three years. The price change in the study was not more than abnormal to cover the cost. This concludes that the market was efficient which consider the existing market variables rather than follow the trend. But the paper also acknowledge that in efficiency may be created which brings high rates of

appreciation in real estate values and high rates of return for investors as a result of largely unanticipated changes in the market and in the case of imperfect information which occurred in

But the study done by John M. Quigley (2003:19) on Singapore housing market, evidently proves that aggregate housing price are predictable with a random walk in time. This paper examines the price discovery process in individual dwellings over time and space using a unique body of data from the Singapore private condominium market. And it comes up with a conclusion the level of housing prices is correlated with serial time change. His finding of mean reversion may suggest that housing prices are forecastable and that excess returns are possible for investors.

Guntermann and Norrbin, (1991) also support this finding. They found that in their report that both real and excess returns in the housing market were forecast able and inevitable to follow the trend irrespective of the existing economic situation.

The study done by Oliver Forlan (2003:32) on empirical tests of real estate market efficiency also support the latter finding. He found that real estate market faces price dispersion and market in²efficiency. By analyzing the price trend of ten years and compute the location price differences, he found that prices do not follow cost differences; while the cost of house price decreases the price was steady increasing where as houses price differences not clearly seen as a result of locational differences.

Gunther Maier's (2009) survey on housing market is another study done on market efficiency. It tried to analyze market efficiency from three aspects in particular: The availability of information, price volatility- cycles- bubbles, and price dispersion. By using these criteria, he turns out with the conclusion the results regarding the real estate market are inconclusive. Although there is strong evidence of inefficiencies arising from imperfect information, transaction costs, production time lags, price volatility, and cyclical factors etc., there are also claims that the real estate market is generally efficient. To what extent is the result of aggregation, where the effects of the well known sources of distortion at the micro level are leveled out by aggregation with respect to independent and particular determinants that affect supply and demand side of the market (Gunther Maier and Shanaka Hearath, 2009:42)

The other two more studies reviewed, emphasized that the real estate sector inter connection with the bank , other insurance companies as well as the rest economy and underlines the sector is governed by speculation.

The study done by Renaud Bertrand (1984:23) indicated that the high degree exposure of banks on real estate sector results in all economy financial crises due to the high linkage of the industry with the rest sector and high exposure of the banks on real estate investment/assets. As the study indicated banks confidence increases from time to time due to the continuous increase in price of real estate assets. But due to the long run accumulation of supply stocks results in a decrease in the value of assets and causes overall economic shocks.

Eisa Abdelgalil, (2006) on his study of the relationship between real estate and financial sectors in Dubai also indicated that real estate over supply may happen as a result of inappropriate government policies that distort private incentives. For example, uncontrolled financial liberalization may lead to the emergence of new financial institutions that compete with existing lending institutions by offering loans on generous terms. As competition intensifies, and more financial resources become available for real estate, investment in real estate rises and eventually real estate prices will fall, after initial increase above their fundamental values.

He also recommended that monitoring real estate prices is important for the stability of the banking system. This is because of the direct and the indirect exposure of the banks to real estate price volatility. The real estate prices and the banks' lending for residential and commercial real estate should be used as indicators for the soundness of the banking system using real estate market indicators like real estate prices, banks' residential real estate loans to their total loans and banks' commercial real estate loans to their total loans.

Whereas the study by Stephen Richard and Wilson David (2004:25) has revealed that the investment is highly governed by the speculative motive. According to this study the market is distorted from two directions; on one hand speculative developers purposely commit long term sale which create shortage in today's market and speculative buyers paid high price for existing houses on the other hand which jointly inflated the price of the house more than its market value.

In addition to the above studies, studies also done on the prospects of the real estate industry ;to mention some of them, The study done by Meric Tuhral (2005:26) on the real estate development process in Turkey master of science thesis, found that the growth of the market is constrained due to land and capital problems .The study found that much competition from other profitable sectors for bank loan and capital on one hand and competition from private home builders and cooperatives for land on the other hand creates shortage of land and capital for developers. According to the study the developers try to solve their problem by selling share of their stock to land owners and financial institutions .Whereas the study done by Karol Jan Borowiecki on the determinants of house price and construction found that the real estate sector is constrained by heavy regulations, time consuming zoning regulations and restricted building authorizations.

This challenge of the sector also reflected by Ian Harris (2003:5) study on London housing market. He found that the housing market of the city fails to satisfy the minimum standards the city's residents' demand for decent housing and developers fail to produce an efficient quantity of houses. According to study, this market failure brings some negative consequences which include families living in sub-standard accommodation, homelessness, key public sector workers unable to afford to live near to where they work,

This study has also tried to review the available studies on Ethiopia. Because it is newly introduced sector there are only few researches in the area .The researcher has reviewed two available research papers and one non academic study. These researches focus mainly on the role of the sector in solving the housing problem of the city. For instance the study done by (Mulugeta Maru,2008:48) on the role of residential real estate development in minimizing the housing demand in Addis Ababa focuses on the ability of the sector in meeting the housing demand of different socio- economic groups. He studied about 5 developers as case studies and the result obtained revealed that the sector could solve only the housing problem of the rich and Diasporas and it mention the high administrative /regulatory costs as big challenge .According to the study, the home buyers are required to pay different expenses for the government in the form of sure tax ,10% on imported materials,2% registration fees and 15% VAT which totally reaches up to 27% additional cost for a house and the problem is aggravated when 11% interest rate added which makes the additional cost 38.%. The study also indicated that lack of clear and well fledged regulations on house development or the gap from land development and building authority to set standards ,rules and regulations as well as planning principles to control the real estate development practice, brings miss use of land and illegal site, house and neighborhood development.

The same result also found from the studies of Wubshet Birhanu and Yared Alemu. The study by Wubshet Birhanu (2005) on the feature of real estate form of housing development in Ethiopia, case studies on three developers found that the real estate developed houses are accessible only to high income groups and there is high socio economic exclusions by which the supply satisfied only the housing need of few rich people, higher tier of the society. According to the study, real estate developed houses are high cost and from the three developers studied, Ayat is better accessible which supply the house up to birr 50,000 for cash and birr 57,000 for mortgage for a smallest house size with 2 rooms with plot size of 105 m² where by the customer need to pay 25,000.00 down payment and 10% interest is charged on the remaining 32,000.00. Such types of houses were affordable at least for middle income groups due to low land cost with a lease price 129/m² because of negotiation and compensation for farmers and because the sites are located at the most outskirts part where there is cheap land.

Whereas houses developed by habitat new flower homes are too expensive with minimum price of half million. However due to the modalities of payments and lack of housing loan, houses constructed by all real estate developers are not accessible to low income and the majority of middle income groups. The study also indicated that developers sell service type houses and non developed lands.

Whereas Yared Alemu's, (2006) research on real estate development in Addis Ababa on two functional developers revealed that developers are profit oriented and target high income groups as a result they construct more individual family houses than apartments and condominiums which reduces the share of condominium from the minimum requirement of 70% which contradicts the regulation; so it makes the houses are unaffordable for low and middle income groups.

Using the above studies which bases case studies as a bench mark, this research tries to study the prospect of real estate development in the city of Addis Ababa by extending the studied variables to include affordability, financing system, administrative and economic environments and developers behavior in house development practices

CHAPTER THREE

INTERPRETATION and ANALYSIS of RESULTS

This chapter presents the results of a study conducted among a sample of 16 developers found in the city. In the city there are about 124 registered and licensed developers which are provided land for house construction. According to the information obtained from AACG land development and building permit authority only 64 developers are operational. Hence, this research used these developers as population elements and took 25% as sample elements. The research has applied both purposive and simple random sampling technique it purposely select 3 experienced developers i.e Ayat, Gift and Sunshine real estate and use simple random sampling to select the rest 13 sample elements from the existing 64 operational developers.

The chapter is organized into four sections. The first section deals with real estate regulations and policies. The second section attempts to assess prospects of house production determinants i.e land, finance and construction material. House's affordability is discussed in section three and the rest two sections deal with house and residential pattern and developers' construction practice.

The study was conducted in Addis Ababa, the capital city of Ethiopia, a country that is situated in the horn of Africa. The city lies at $9^{\circ} 1' 48''$ north latitude and $38^{\circ} 44' 24''$ east longitude. The city stretches from 1800 to 3200 meters above sea level. According to the recent demographic study (2008), the total population is estimated to be 2.7 million. Average annual growth rate of the population is 2.9% to which the natural increases has lower contribution, 1.21% than migration (2008 CSA report).

Addis Ababa is the home of various nations and nationalities; Addis is an official diplomatic capital of Africa with more than 90 embassies and consular representatives. Addis was chosen as the head quarters for the United Nations Economic Commission for Africa (UNECA) in 1988. Addis is also the head quarter of the Organization of African Union (OAU) and now African Union (AU) since 1963.

Organized form of private real estate development is a recent phenomenon for the city as well as the country. Its age is not more than 2 decades. In the past years before 1990s there was no formal way of real estate development by the private sector as a business. Under the imperial era; urban land and real

estate were largely the property of the feudal elite. As (UN habitat, 2007) stated, in the pre revolutionary land tenure system about 95% of privately owned land was in the hands of only about five percent of the population. During the given period, the residential real estate supply of the city is determined by landlords who sell some part of their plot or build rental houses for urban residents. Wide spread speculation by land lords on land sell and their little investment in new dwellings makes house development in the period sluggish.

Following the 1974 revolution, the coming government declared nationalization of all urban land and extra houses through proclamation no 47 /1975. The Derg land and house policy permitted public ownership of land which can be given for private house builders freely but it denies totally construction of extra houses for rent by the private sector which outlawed private real estate development. Government started a direct involvement in the supply of real estates especially residential real estates (PADCO, 1998:31). The public sector attempted to replace or control the private sector rather than to complement it. The private real estate sector at the period was completely prohibited by law. PADCO also indicated that Because of this abolition and restriction of private sector participation in rented house production, during the 17 year of the region the average supply of new house did not exceed 10% of the annual average demand.

The current government changed the previous government land and housing policy with the land proclamation no 80/1993 urban land leasehold and use of urban houses which repels the proclamation no 292/1986 construction and use of urban houses.

This law recognizes the public ownership of the lands and grants use right at contract base according to the due date of the lease period .A lease is a contract for the exclusive possession or use of the property or land for a period which is predetermined or defined by agreement between the adopted recognizing the multi face problem. The lease policy gives full right of land use with tenure security and private property to encourage private sectors to invest on land and housing (MWUD, 2005)

Since 1991, the EPRDF government has sought to introduce a more market oriented approach to real estate development. For the first time the private investors are acknowledged to play an active role in house production. In some way the notion that competitive private sector and economy liberalization that used to generate more resources and giving ample contribution, recent research on the effects of

housing policy on the supply of housing has also provided empirical support for the view that having the public sector enable rather than control or displace the private sector is essential to improve the supply of housing. The governments facilitate efficient and sustainable delivery of land to investors engaged in the construction of commercial and residential buildings for sale, land is also provided freely to investors construct low cost housed (proclamation No. 80/1993). The government also provides land on negotiation for condominium housing to promote economical use of land. The government provides serviced land by covering all cost of off site infrastructure like electric, water and telephone lines and roads. Although it doesn't enact private ownership of land, the government grants full private use of land through establishment institutions and legalizing investors' activities.

In response to the above changes some real estate investors have started their investment, activities in Addis Ababa in the mid 1990s. At the stated period few pioneering companies began to conceive of large scale developments and offered buyers the opportunity to buy with a promise of low priced but good quality housing. Ayat is the first residential real estate developer, planting the ground for the impending desire of many new developers to in rest on this lucrative business.

Ayat was established in 1996 G.C with an ambitious plan to build 25,000 homes in four phases and began construction in 1998. The company has began the development on 984, 443m² area of land with capital of birr 967,576,300.00. Its first phase project is "Ayat mender" is located 15 km. east of Addis Ababa (Company broacher). Some other earlier entrants are like Berta, Ropac and Sunshine. In Addis Ababa, as per land administration and building authority of the city, there are about 400 licensed developers of which 124 real estate developers received 5.9 million land for real estate development so far. While about 360 developers have building permit (AACG unpublished document). The administration has delivered 5.9 million m²/ 5 hectare area of land for house development.

Most of the developments undertook at the periphery/outskirt, hence the periphery sub cities like Bole, Yeka and Nefas silik Lafto sub cities constituted the lion share cites of development. About 67 developers, 50 % of the total operate in Bole sub city where as 26 developers found in Yeka and 22 in Nefas silk Lafto and the rest 9 developers out of 124 total developers found in Kirkos, Kolfe, Lideta and Akaki Kalti sub cities. hence the study select sample developers for the study proportional from different sub cities as shown in table 3.1 below. Out of these 16 selected developers, 3 experienced and dominant developers are selected as sample purposely (2 from bole and 1 from Yeka sub city) since they are potential targets in order to get better and exhaustive information on the subject area.

Table 3.1 Number of developers found in the city and number of sample developers

No	Sub city	Amount of land holding in m2	Size of Population	No. of active developers	Sample size
1	bole	1,519,684	67	37	9
2	yeka	391,845	26	15	4
3	Nifas silk	576,446	22	9	2
4	Others(kirkos, kolfe, lideta akaki)	212025	9	4	1
5	total	2,700,000	124	64	16

* Source: AACG Land and building permit authority. A.A

3.1. Real Estate Regulations, Directives and Policies

The government has formulated different regulations, directives as well as policies in order to regulate and control house development activities by real estate developers

The main intention of all these instruments is to ensure legal and harmonized development by the sector. However, concerned to these tools, two important issues need to be raised, their appropriateness and effective implementation by developers. Hence this study aimed to assess the existing regulations, directives and policies which govern real estate with respect to their intention, appropriateness and effective implementation.

A. Land Lease

Today's urban tenure system is comprehensively governed by urban land lease policy. The lease policy defines the existing system of land delivery and use right of urban land. It is promulgated as a counter to free hold system of land ownership of the previous government. It attached market value of land and fixed period of use right to curve the time less and costless use of freehold system. Lease is a land provision system subject to fixed period of use right and market value of land. Different objectives are included by the lease policy as stated by 2002 urban land policy. The first objective is to ensure the market value of land which subsequently enables the government to generate the required revenue and brings efficient utilization of land by users as users start to realize the cost of land. It also used to ensure planned and controlled development as it avoids informal land acquisition.

The other objective of lease is to encourage investors and investment. Because investors are required to pay price of land in the form of lease rent over a long period of time they will have sufficient money for initial investment and construction activities.

The existing lease policy favors the housing sector in different ways. As Proclamation No 272/ 2002 article 7 stated, the maximum lease period is assigned for residential dwelling which remains constant at all grades at 99 years lease duration while for other purposes like industry and commerce the lease period declines with the increase in grade with exception to commerce at first grade, duration period of dwelling is the highest of all purposes.

Besides this, the lease policy also permits land by negotiation in stead of action for developers build full apartment/condominium houses in order to encourage economic use of land and development of houses for 73m2 middle income group. The city administration grants land free of charge for those build low cost houses.

The lease policy also attempts to discourage excessive ownership of plot of land for a single residential dwelling. As it is shown in the following table the multiplier for a bidding price of land lease increases with respect to the increase in plot size.

Table 3.2 Real Estate Land Lease Price in Expansion and Reserved Areas

No	Area(size) /In sq m./	Lease Price/m2/ in birr/
1	Up to 250	The highest auction of the surrounding area
2	251-500	The price mentioned in (1) above plus the highest auction price multi-plied by 1.5 for the difference area.
3	501-1000	The price mentioned in (2) above plus the price highest auction price multiplied by 3 for the difference area.
4	1001-1500	The price mentioned in (3) above plus the highest auction price multiplied by 4 for the difference area.
5	1501-2500	The price mentioned in (4) above plus the highest auction price multiplied by 5 for the difference area.

Source: Pro. No.29/2010. AACG revised land lease proclamation

B. Land Use, Zoning and Land Development Regulation

Land use refers to the planning aspect which includes land allocation and subdivision for different purpose whereas land development is the process by which the resources of land are put in to an appropriate use or effect (Hoywood and Jacobs,1990). In general they are standards to control and direct land use planning and infrastructure development

The real estate regulation 2001 is enacted to enforce real estate land use and land development. Article 4.1 of the regulation decides the proportion of condominium and villa houses to 70% and 30% respectively. It intends to appreciate the development of low cost housing. Besides this, the regulation also permitted the conversion of this proportion to full condominium houses while the reverse is not allowed (100% condominium to 70% condominium and 30% villa Art 9).from this we can understand that the regulation recognizes the allocation of urban land to a high rise of condominium houses which contribute to maintain the beauty of the urban areas and to the improvement of urban land use and supply of housing through making great number of people benefit with small size urban land holding.

The same article also limits the plot size of villa houses which is minimum 250m² and maximum 1000 m² in the expansion zone and minimum 200m² and maximum 500 m² in the centre and upgrading area. This regulation is important in order to avoid excess holding of land by individuals. More over the land use regulation decided the maximum plot size given for a developer at one phase which is 2.5 hectare in the expansion zone and 1 hectare in the centre. No any modification of land use allowed with out the design. (Art. 12)

The regulation also demands land should be used up on the land used plan proposal and should be transferred to other parties only when at least completion of 1/3 of the house. This regulation is important to avoid the transfer of undeveloped land and speculation coupled with the regulation, Article 7.2 which sets 12 months grace period of construction start up. This measure used to discourage housing developers from lifting land holdings which have planning permission. It also used to exclude speculative developers from selling vacant land and serviced or under developed land. The land use regulation also set the standard proportion for open spaces and roads from the total area. Accordingly 5% is allotted for green area and roads for a total development area of 5,000 – 10000 m², 7% for 10001-15000 m², 10% for 15001 – 20000 m², and 15% for a plot area covers 20001-25000 m² while 20% is reserved for plot size above 25000 m². It prohibits the conversion of open spaces and any areas

reserved for green areas and roads by no means (2001 AACG Real Estate Directive). This shows that the regulation appreciates the existence of open spaces which increases the proportion of green areas and roads with the increase in the size of residential area appreciate community facilities.

The limitation of this regulation is it states open areas in crude form rather than separately for different purposes like open spaces, green area and roads by which it uses developers the subdivision plan proposal which clearly indicates the proportion of land for residence, open space, green areas, roads and different neighborhood facilities.

Article 4.5 on the other hand determines the minimum and maximum land holding area of condominium houses at 50 m² and 150 m² respectively. With regard to this plot limit, developers complained the minimum limit as a challenge not to construct low cost houses comparing the minimum plot size of 22 m² government sponsored condominium houses. Some witnesses drew attention to the fact that developers withdraw back sites from the market to maintain price increase. Contrary to this, the land use regulations cumulatively increases markedly coupled to heavy cost of land development, making houses affordable only for higher income groups.

To conclude the land use policy is designed in a way ensures efficiency on land use and land development, combating speculation and promoting equitable land allocation. However, its appropriate implementation and enforcement of these regulations was very weak as it is revealed by city administration's survey report in 2010. The foreseen regulation valuations are discussed and presented in detail under section 3.5 which discussed construction practice of developers using city administration's survey report.

D. Building Regulation /Code

The house quality standard intends to ensure and pursue efficient, safety and regulation secured and structurally strengthen dwelling which guides/determines the type of materials to be employed and construction design. This is because the builder is interested in the immediate sale and their attempts to interpret the design preferences of current purchases and his customers within the limits of their financial capabilities lacks compliance with in the limits of their financial capabilities lacks compliance with development standards, security of residents and quality.

The building authority claims the minimum quality specification which elaborates specifications of building materials, design and construction quality and wastage of resources and time by overfilling. Developers complained that building codes prevent them to test new methods and new materials. They also stated that the real estate building code is expensive that costs them about 15 to 20% additional cost than it could be in the government housing standards which in turn increases the cost of house which challenges its affordability for the majority. Though it is necessary to have a comprehensive picture of the housing stock to the extent creates a standardized village, there is a need to relax some of the building standards like material quality in order to make houses affordable at least for middle income groups as intended by its objective.

In the other way round the standard used to curve the face of the city which supposed to be its serious problem as 80% of the city's population is living in slums which are characterized by overcrowded neighborhoods with no or little basic infrastructure and municipal service, worn out physical structure under unhygienic conditions

3.2 Prospects of House Production Determinants

The level of house supply by developers in the given period of time is one indicator of the sector's efficiency. Since like other goods and services housing is governed by input output model, access to basic factors of production determines the level of housing production. House production and its supply is affected by supply determinants like land, finance, construction material, and administrative & regulatory factors. The existing condition of these supply side determinants highly influence and determine the performance of house construction and rate of house supply. Hence this paper intends to study the prospect of these supply side determinants.

3.2.1 Land

Land is one of the important inputs for house construction by which its price and availability significantly affect the volume and rate of production. Studies indicate that land cost consists of 25 % for villa and 21% for apartment (Ron Blenk and Andrew Goland, 2003) .Taken in to account this, this research analyzed real estate land provision based on criteria like availability of serviced land, timely delivery and land price. In order to know the existing condition of land provision for real estate development, the respondents were asked to evaluate serviced land based on criteria like availability of

serviced land, timely delivery and fairness of land price and their response show that there is favorable condition of land provision with regard to its availability and price. As the indexes indicated below in table 3.3 (Availability of serviced land=0.83, Fairness of land price=0.81), developers are very satisfied with the existing land provision with regard to infrastructure and land price while they are dissatisfied with timely delivery.

Table 3.3 respondents' response index on land supply

Criteria	Number of respondents (%)						
	Very good/ very Attractive(4)	Good / Attractive (3)	Moderate (2)	Low/ Un attractive (1)	Very low/ Too un Attractive (0)	Total	Average Index
Availability of serviced land	8 (50%)	5(31.25%)	3 (18.75%)			16 (100%)	82.8
Timely delivery		2(12.5%)	6(37.5%)	5(31.25%)	3(18.75%)	16 (100%)	36
Land lease price level	3(18.75%)	7(43.75%)	6(37.5%)			16 (100%)	70

*Source: - field survey 2010

Personal observation of the researcher in different sites also proves this. Infrastructures like electricity, water supply, telephone service and road are fulfilled at the construction sites. Generally from interview with developers it is possible to understand that they are provided adequate amount of serviced land by the office.

Land price is also favorable; the city government provides land to real estate developers through negotiation in order to relax the cost of land and motivate their development. It also grants land freely up to 50 m² for developers who construct low cost houses for low and middle income group. In the past year, the City Administration has clearly signaled its intention to simplify and improve procedures related to land lease issuance by both enacting new directives, lease directive 2001 and by promising even further changes in the near future. Regarding the already issued directive, the City Administration

has now allowed for the use of negotiations rather than just auctions in the allocation of leased land; According to the city government land authority information lease rates under negotiation allocation system are not to exceed Birr 2480 per square meter. And this negotiation lease can relax the cost of land. While in central areas like Arada, Cherkos and Merkato land is sold by auction with the range of 7000 to 11000/m² by negotiation land is provided to developers in these first grade business zones for 2480 birr/m² where as in the expansion zones like Bole, Nifas silk, Yeka and Akaki land is sold for a maximum amount birr 522.11/m² while it is leased for 3000-6000 birr by auction.(AACG land authority unpublished document)

With regard to low performance of timely delivery of serviced land two reasons can be mentioned. From the office side lack of advance panning and service land preparation due to lack of finance mentioned as a reason while developers mentioned excessive land provision and building regulations as a challenge.

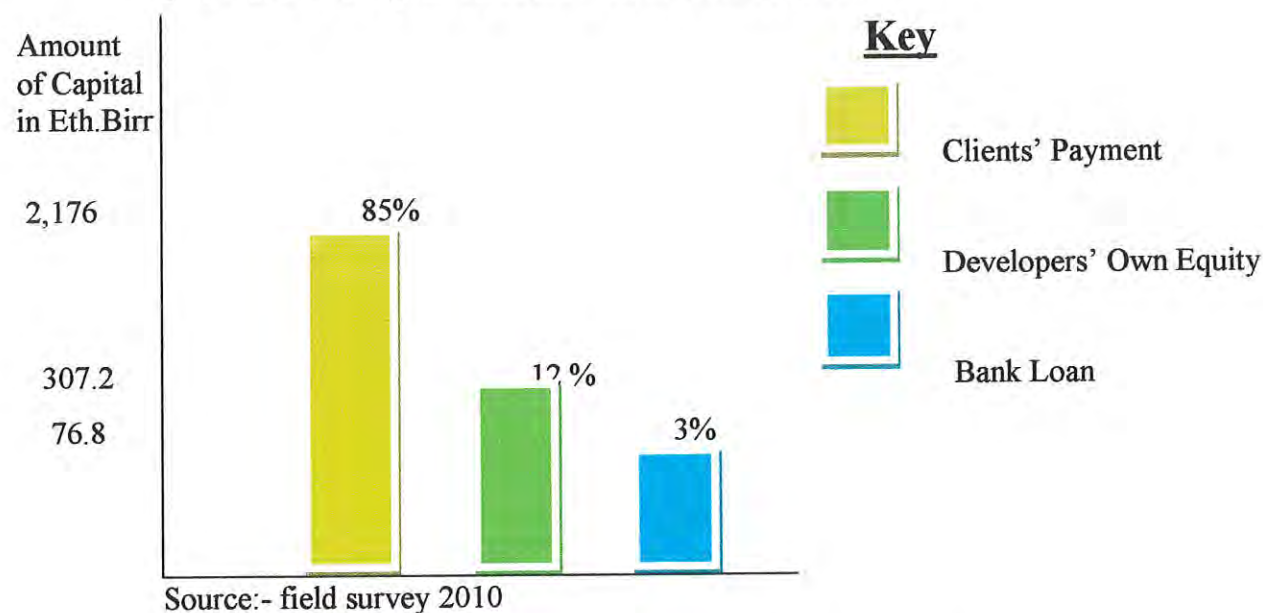
3.2.2 Housing Finance

Housing finance is defined as the extension of loans to consumers and developers to acquire house (R. Bertrand, 1984). Developers and house buyers require financial loans to finance their development and house purchase as real estate investment mobilizes huge capital by nature. The availability of finance and financial loan can foster house construction by strengthening developers' financial capacity and customers' purchasing power. In some developed and developing countries bank financing plays more significant role in house construction and house purchase. In these countries, bank boom is associated with Real estate boom as real estate investment has big attachment with bank financing to the extent some banks put part of their portfolios on houses. Different countries use different approach to solve financial problem like Singapore's government mortgage loan scheme, government sponsored mortgage financing enterprises in the case of USA. In Singapore government is the largest provider of housing loan/mortgage through housing and development board /HDB/.HDB provides up to 90% of the housing purchase price. It provides housing loan for eligible home buyers. Real estate mutual funds, pension funds, insurance companies and private as well as public funds are the other major investors in the housing sector in developed countries. Countries like India and Bangladeshi use different loan streams such as savings and loan associations, commercial banks, insurance companies, and mutual savings banks.

These financial institutions arrange a mortgage system which allow people to purchase houses on long term credits with maturities of 20,30 and 40 years and with installments that are no higher than the rental rates of houses.

These mechanisms are not practiced in Ethiopia; currently there is very low financial institutions involvement to cater the needs of house builders & house buyers. There are no financial institutions other than commercial banks that channel housing loan in Ethiopia. And with regard to banks as Mathewos Asfaw (2005) indicated there is very low private and government commercial banks interest and involvement in housing financing as they inclined to less risky and profitable sectors i.e business and commercial sectors. According to his findings, the high default rate among the developers is one of the factors discouraging commercial banks from investing in this sector. The same result obtained from this survey; as you can see below, there is very low utilization and provision of housing finance in the sector. As you can see in the following diagram. Developers primarily used client's payment; about 85% of their investment is covered by clients and use equity capital as second better source where as bank finance cover no more than 3%.

Fig 1:- Source of Capital for House Constriction Projects.



As you can see in the above diagram, Financing options are presently skewed in favor of customer payments and no projects were financed entirely with the developer's own funds. And as you can see in the following table all developers arrange a scheduler payment system which requires clients to make payment at scheduler base with the progress of the construction and finish their payment with the completion and hand over of the house. Majority of the developers arrange bank attachment for their

customers with the completion of a certain percent of house payment and phase of construction usually 50%. 50% mortgage is the common mortgage rate in the commercial banks while some banks allow less than this amount, 40% and 30%. 50% mortgage is the maximum mortgage amount by banks considering equivalent physical value of half constructed houses to mortgage amount. Out of 16 developers about 9 developers arrange bank attachment by which 7 of them arrange 50% mortgage and the rest two 40% and 30% mortgage. The available payment period arranged by the mortgage is 20 years for 7 developers and 15 years for the rest two. Whereas a significant number of developers (the rest 7 developers) not arrange bank attachment to their clients.

Table 3.4 Type of payment arrangements by developers

Type of payment		No. of developers	%
Scheduler payment with mortgage	30% mortgage	2	12.5
	40% mortgage	1	6.25
	50% mortgage	6	37.5
Scheduler payment with out mortgage		7	43.75
Full advance payment		0	0
Total		16	100

*Source:- field survey 2010

To know the reason for this low utilization of housing finance questions raised for developers related to existing financial loan arrangement and as their response indicated below un availability of financial loan, and high interest (high cost of borrowing capital at 13 % average interest rate of commercial banks) raised as main problems with response rate of 87.5% and 75% respectively. This implies that un availability of adequate housing finance and less attractive loan arrangement on the available ones brought low bank financing in the sector. It is obvious that the existing interest rate at 13 % brings high burden loan service and reduces borrowers' capacity for monthly debt repayment. A house buyer has to pay about 55598 birr interest at prevailing 13% average market interest rate for a smallest/cheapest house type, 1 bedroom apartment which worths 427680 birr. It is possible to understand there is

favorable mortgage arrangement by banks by which it grants up to 50% mortgage for about 20 years. Most of the commercial banks grants bank loan at 50% mortgage rate by which clients are provided bank loan with 50% construction completion. Banks usually does not allow loan for more than 50% mortgage rate for un finished house to avoid loan default. There is also convenient loan period, banks currently provide loan for about 20 years which allow long enough amortization period.

Table 3.5 Response on problems related to housing finance

No.	Challenges on financial loan	Number of response	response rate
1	collateral requirements	5	31.25
2	High interest rate	12	75
3	Un availability of bank loan	14	87.5
4	Short payment period/Amortization period	3	18.75

*Source: - field survey 2010

These problems are mainly associated with the change in the role of the Previous (HCB). HCB has been providing financial loan for housing constructions with subsidized interest rate at 4.4% against market interest rate 7 % (ORRAMP, 2000). It has deliberately established to provide housing loan for home builders and buyers financed from state treasury. But since the change of its name to CBB following free market economy policy and market reform in 1994, it started to operate based on market principles like private commercial banks which decreases and minimizes its contribution in housing loan provision (PADCO,1998). To imply that it has shifted the focus of its lending services from housing to general business and commercial real estate development. It was reorganized in such a manner that it should operate like a private bank pursuing profit. Thus CBB is now entirely turned to commercial lending as the profit motive is served best by commercial lending than by low cost housing (Un-Habitat, 2007). Needless to say, currently there is lack of financial institution in charge of providing housing finance.

The financial capacity of developers is other reason that restricts loan access to house buyers by which excludes some potential home buyers. Because of their low financial capacity all developers practice sell and build system by which they un able to arrange viable financial loan alternative for their customers. Some limited assistance is offered by real estate companies who provide installment plans but these typically extend payments for a period of a year or two, in contrast to the long-term mortgages desired by most buyers.

To conclude, although there is high potential of mortgage credit because of the fact that high residential demand 287000 dwellings in 2009 and high population of under 20 age, 45 % (CSA, 2008) in the sector, due to the absence of institutional construction lending and the shortage of equity funds by developers, prepayments by future homeowners are the main source of construction financing which narrow down the potential customers. One revealing indicator of the scale of unmet demand can be seen from the recent Government condominium lottery of April 2010. A total of 485,000 individuals (almost one-seventh of Addis residents) applied for condominium units though only 10,700 were made available (2.2 percent of total demand).

3.2.3 Construction Material

Building material accounts for a considerable share of total cost of dwelling units which consists about 30-35 % of the total construction cost (Ron Blenk and Andrew Goland, 2003). Its availability and local supply plays an important role in housing production and supply. Hence this study focuses on availability and price of construction materials. The study uses developers' responses to assess these variables. It also assesses secondary data and other studies to strength and cross checked their responses.

Sample developers were asked to rate construction materials' availability using indicator terms (Very good, Good, Satisfactory, low and Very low) which again represented by five scales, a scale between 0 and 4. As their response indicates in table 3.6 below, there is moderate supply of construction materials where by their average index of satisfaction is 49.8 although some construction materials like cement (26.6), Reinforcement iron (34.4), and Hollow concrete block (31.3) have acute shortage. On the other hand there is better supply of Aluminum, Steel sheets and Galvanized sheet with 65.6, 68.8 and 76.6 SI /Average Index / respectively. Although generally there is satisfactory availability of construction materials, developers interview result revealed that absence of some construction materials like cement and hollow concrete block in one hand and inconsistent market supply of imported materials (like Aluminum, Glass and Electrical equipments) on the other hand have highly affected house construction process.

Table 3.6 Responses on construction materials' availability

Item	Number of respondents (%)						
	Very good (4)	Good (3)	Moderate (2)	Low (1)	Very low(0)	Total	Average Index
Cement			3(18.75 %)	11(68.75%)	2(12.5%)	16 (100%)	26.6
Window Glass	2(12.5%)	4(25%)	8(50%)	2(12.5%)		16 (100%)	59.4
Aluminum	3(18.75%)	5(31.25%)	7(43.75 %)	1(6.25 %)		16 (100%)	65.6
Steel sheets	3(18.75%)	6(37.5%)	7(43.75 %)			16 (100%)	68.8
Galvanized sheet	5(31.25%)	7(43.75 %)	4(25%)			16 (100%)	76.6
Reinforcement iron		2(12.5%)	3(18.75 %)	10(62.5%)	1(6.25%)	16 (100%)	34.4
Electrical equipments		2(12.5%)	5(31.25%)	7(43.75 %)	2(12.5%)	16 (100%)	36
Hollow concrete block		1(6.25 %)	4(25%)	9(56.25 %)	2(12.5%)	16 (100%)	31.3
Average index							49.8

*Source: - field survey 2010

Concerning to construction materials price, it is possible to understand from discussions with developers, they use more imported materials due to quality standards and the growing of construction sector increase the price of construction material. They indicated that they use more imported materials for activities like electrical work, flooring, door and window.

Studies also prove this fact. The study done by Mengesha Zenebe, 2008 on role of construction industry for real estate development indicated that up to 90-100% of materials for different construction works like glazing, electrical, and sanitary works are imported. And according to Mathewos A. 2005 about 75% of Aluminum, 69% of Steel, 78 % of electric cables and 61% of glass used in the construction sector are imported from abroad. The federal construction sector monthly edition for April 2010 also revealed that domestic industry is inefficient to satisfy construction materials demand although there is recent development in steel and steel sheet processing factories. From this we can understand that the construction material factories are not expanding with the expansion of the

construction industry. There are only few local firms engaged in the production of construction materials which manufactures mainly steel, metal sheets and cement.

It is also possible to understand the price of construction materials are growing from time to time. As CSA 2009/10 statistical report on retail price of selected construction materials indicated below, there is continuous rise in construction materials in the last five years. As you can see in the following table, all construction materials show a continuous price rise which make price of main construction materials like cement, iron sheet , window glass and brick increased on average by 30.8%,21.6%,25.7%,18 % respectively in the last five years. The smallest rise is shown on galvanized steel sheet which is 4.6%.

3.7 Construction material average price for the year 2005/06-2009/10

Item	Average retail price in Ethiopian birr for the years 2005/06-2009/10					
	2005/06	2006/07	2007/08	2008/09	2009/10	Average price change
Cement/bag	66.11	102.33	106.68	148.3	185.66	30.8
Corrugated iron sheet(.2mm)	45.94	61.78	84.35	95.17	114.26	21.6
Hollow concrete block(15x20x40cm)	2.87	4.26	5.03	5.65	6.85	25
Bricks(25x12x16cm)	1.50	1.85	1.64	2.12	2.88	18
Sand/m ³	182.56	194.48	199.43	211.41	260.56	9.6
Glass window(50x50x3mm)	12.52	14.76	17.52	24.48	31.13	25.7
Mega paints/4 kg	55.99	56.68	69.78	80.49	92.65	13.7
Galvanized steel sheet/local	88.18	91.43	96.55	98.74	105.25	4.55
Galvanized steel sheet/imported	164.23	172.57	168.24	180.11	195.69	4.6
Reinforcement iron/local	102.22	107.43	115.83	128.54	135.32	7.3
Average price change						16.1

*Source: - 2009/10 CSA Retail price of goods and services, Annual average prices

3.2.4 Regulatory Factors and Government Policies

In section 3.1 regulatory factors and government policies are discussed according to their intention appropriateness and implementation. In this section, they are analyzed as one determinant of house production/ supply. Government designs different regulations like land use, zoning, building code and land lease policy that used to regulate and govern developers' house construction practice. These regulations are designed with the intention of promoting planned, socially desirable and uniform development. But as literatures in the area indicated ill conceived standards and regulations would hamper the level of construction. And many of the time these regulations bring problems to developers and affect the house production process. As Christopher J. and C. Tsurriel 2006 characterizes regulations as adding explicit costs, uncertainty, or delays to the development process.

Oliver Forlan , 2003 also indicated that land use regulation not only lowers the steady-state level of new construction, but can also reduce the speed of adjustment of new construction to demand and cost shocks. His empirical work on dynamics of private real estate, suggests that purely financial regulations, such as development fees, have a much smaller effect on new construction activity than regulations that induce additional delays and lengthen the construction process.

The researcher has interviewed developers on problems they encountered related to administrative and regulatory factors. They raised land provision system over restricted that delayed land provision and house development and building regulations that delay the construction permit. Further more they raised the building code and building quality standards as a constraint to construct low cost houses because it requires more expensive building materials (imported materials at large), high cost construction technique and construction design. Developers are required to fulfill the minimum standards on subdivision plan, zoning, land use and building design.

They criticized that government sets over restrictive standards which demands highly standardized and imported construction material and high technology compared to condominium housing program. Minimum dwelling size 50 m² compared to 22 m² of condominium houses. They also complained that introduction of VAT to raise house price. A house buyer is required to pay about 64152 birr VAT for the cheapest dwelling (1 bed room apartment which worth birr 427680.6) which is nearly equivalent to the second cheapest condominium house(single bed room apartment which worth birr 68,719).

To conclude all these constraints hampered the production of houses. The sector produced so far only 9756 number of houses in a decade (access real estate sector report, 2010). about 38 developers not entirely start activities of which 13 transfer their holdings and about 2437 number of houses construction prolonged for over 3 and 4 years(AACG 2010 Real estate survey).This again ends with the increase in price of houses as it couldn't push enough up the house stock to meet the concentrated and ever increasing demand.

3.3 Houses' Affordability and House Price

Affordability refers to the ability of potential home buyers to possess a house at the prevailing market price (Erugden M., 2002). Affordability is the ability to pay for adequate housing. Affordability looks at the form whether the form, technology, and cost of housing are compatible with the income flow of prospective housing consumer. Household income is usually allocated to a number of competitive uses such as food, clothing, health care, education, transportation and all others needs necessary to maintain a good and healthy life of a household at a given income (Byron Shire, 2002). Wikipedia, 2007 defined housing affordability as a dwelling where the total housing costs are affordable to those living in that housing unit. Most of the time house affordability is justified by comparing its price to income of home buyers. Wikipedia stated that when the monthly carrying cost of a home exceeds 30-35% of household's gross income, then the housing is considered as unaffordable for that household.

In many countries including United States and Canada, a commonly accepted guideline for housing affordability is a housing cost that doesn't exceed 30% of a household's gross income. Conventional wisdom held that a household should not spend more than 30 percent of its income on housing. This research also uses this conventional standard to examine affordability of real estate houses.

The annual incomes of city population were analyzed against the open market property values (the monthly amortized value of 50% value of the respective property over 20 years at 13 % market interest rate) focused on what we consider six types of representative houses within the local market: a 250 sq-meter house with 2 to 3 bedrooms; a 500 sq-meter house with 3 bedrooms; and a 1000 sq-meter house with 4 or more bedrooms. And 1, 2 and 3 bed room apartments. With regard to price computation it took average price of each developer for the same typology in different standard and location/ its computation is shown briefly on annex at the end of the paper.

Table 3.8 Price income comparison of different types of houses

Type of house	Average price of a unit/house in eth. birr	Monthly payment	Income required /month
1BR apartment	427,680.6	2,505	8,350
2 BR apartment	650,257.7	3,809	1,2697
3 BR apartment	831,795.6	4,873	16,243
250 m2 villa	1,939,395	11,361	37,870
500 m2 villa	3,329,449	19,504	65,013

*Source: - field survey 2010

As shown in the above table, the house price doesn't consider the city residents' purchasing power. In order to be able to pay for the cheapest housing typology, 1 BR apartment, it requires 8,350 birr which is 14 times of the median income of the city residents at 571 birr monthly income and 12 times of the upper limit income level of middle income group (0-669 birr income range). where as about 12697 birr is required to cover 30% of the monthly payment of birr 3809 of the next cheapest house (2 bed room apartment) which is much higher than the level of income of middle income group which is also incredibly higher than the lower boundary of the higher income group, birr 2,000 (600% higher). By the same taken the rest house types are also unaffordable. This means houses exclude the majority of the city residents by which 90% of the population is lower and middle income group (CSA, 2004/5). This problem is worsen when take into account significant number of developers about 7, 43.75% not arrange any mortgage system as it is shown in table 3.4.

To conclude, the price of the house is a good indicator of the socio economic group served by real estate development. The minimum house cost being close to half million, the customers must obviously be very rich and high income people. At median house price birr 1,325,649 it requires a life time saving for the majority of the households to cover the full payment by which about 74% earns below birr 670 monthly income and 16 % lie between birr 700 and 2,000.

Although it was not possible to get sufficient data to describe the socio economic characteristics of clients, discussion with sample developers underlined that the majority of the clients (70-80%) are

diasporas living abroad and few country business men reside in the country (in fact most of the clients are not shelter needy households rather they purchase homes in such real estates as part of accumulating property /social security and a way for upward mobility in social status and investment purchase for rent). Real estate type of houses rented for up to 18000 birr monthly rent for Diasporas and international communities. As some studies indicate villa type real estate houses are rented for up to 15,000 Eth. birr. According to access real estate survey, 2010 real estate houses rented at high price; small homes rented for 2,000birr at Alem bank, Bethel residential neighborhood up to 25000 in bole Japan. While middle and large homes in these two neighborhoods rented for (6000, 50000) and (10000, 80000) respectively.

Because of this high price, it is difficult even to pay the dawn payment for most of the city residents. At 20% common rate of dawn payment, house buyers are required to pay 85,536 birr for the cheapest house type, 1 bed room apartment and birr 130,051 for the next cheapest house, 2 bed room apartments which is out of the financial capacity of lower and middle income group and civil servants.

Different factors like construction material price, land cost and standards mentioned by developers as main reasons for this low affordable of houses. They indicate that the house quality standards enforce them to use high quality expensive materials, high construction technology and house design. According to 2009/2010 CSA statistical abstract on retail price of construction materials , the cost of construction material increases in average by 16 % in the last five years which significantly challenges development of low cost houses. But with regard to land cost, it can not be mentioned as challenge to provide low cost houses as government provide free land for low cost houses and allocate land by negotiation. government provides land for a price 439.88 birr per m² in the cheapest locations and sub cities like Akaki and Nifas silk and 2480 birr per m² in highly worthy locations and sub cities, Arada and Cherkos against the auction lease value of 50000 and 7000 birr per m² respectively (unpublished AACG land and infrastructure office document). Besides this land price effect is minimal in apartments as it distributed enough with the construction of high rise buildings.

Private developers are expected to meet the housing demand of middle and higher income group while government program target lower segments of the market. Private apartment developments are expected to be much more diverse in their targeted market segment than those of the government, which are likely to continue their original objective of addressing the housing needs of mainly lower

income. There is an effort by some private developments like Flintstone and Ayat targeting a market segment that starts with middle-income households but also caters to buyers seeking very high-end, exclusive, and luxurious apartment residences. But due to the above challenges they can not provide such type of houses at intended and desired amount of price.

3.4 House and Residential Pattern

Highly diversified houses are constructed by private developers. Developers construct various types of houses starting from the common apartment houses to deluxe ones and luxury villas. Dwellings vary also in terms of plot size, number of rooms, number of storey and house standards. It is not surprising to find Luxury villas meet European standards which accommodate all high need housing facilities like stem bath, sauna bath and golf fields. But the most common and largely produced type of houses are 2 bed room apartment and 250 m² and 500 m² villa while least demanded ones are 1 bed room and 4 bed room apartment houses. From interview with developers, it is possible to understand that there is high demand for villa type houses, especially for 250 m² and 500 m² villa house by home buyers because they are family house with relatively affordable price. With regard to apartment houses plot size, large numbers of the houses, 2223 (76%) fall in the range of 50 and 70m² which is moderate and when we come to buildings' storey size, High rise buildings up to 15 storey are built while the dominant ones are G+4 apartments which is efficient size to promote efficient land use. The distribution of houses by their type is shown in detail on annex 10 at the back of the paper. From this it is possible to understand face of the development try to consider the lower and middle segment of the market at least by minimizing the plot size and constructing high rise buildings. Besides house type, this section of the paper aims to assess houses quality and face of the residential neighborhood.

House quality refers to the quality of the building, construction material and building design as well as the availability of adequate housing and neighborhood services. Hence 13 city and sub city experts and officials were asked using questionnaire to evaluate housing and residential quality using criteria like raw material quality, building quality, housing services and residential area quality. From their response summarized below satisfactory quality obtained related to the above criteria by all of the indexes which are very high in the study area (.79 to .87 ranges) which are close to 1, very satisfactory result.

Table 3.9 Supervisors' and experts response on house and residential quality

	Number of respondents (%)						
	Very good (4)	Good (3)	Satisfactory (2)	Low (1)	Very low (0)	Total	Average Index
Raw material quality	8(61%)	4(31%)	1(8%)			13(100%)	88.5
Building quality	10(76%)	2(16%)	1(8%)			13(100%)	92.3
Residential area quality	3(23%)	5(38%)	3(23%)	1(8%)	1(8%)	13(100%)	65.4
Housing services	9(56%)	4(25%)	3(19%)			13(100%)	82.7

*Source: - field survey 2010

Questioner was also administrated for the sample developers on housing services and utilities provided by their company. And it is possible to understand that all developers provided all primary housing services like water supply, electric power supply, home telephone service, kitchen, dry waste disposal, bathing and toilet facilities and Parking lot. They proved that they make sure they fulfill the above minimum requirements at the time of hand over to customers up on their agreement. It is also possible to understand the houses quality from researcher's visit. Houses constructed by developers are high quality and standardized ones. Good quality workmanship and architectural beauty is reflected in their construction. Buildings' structures as well as internal and external fixtures are made from highly standard materials like ceramics, aluminum, hallow brick and concretes. It is possible to see the quality of theses real estate houses from the following picture.

Picture 1. Sample houses constructed by private real estate developers





Concerning to residential neighborhood services, all developers included provided the most important neighborhood facilities i.e play grounds and open spaces. Community facilities provided by the developers includes open spaces, green areas, play grounds and neighborhood road network/ accessory road, street light and sewerage lines shopping areas where as swimming pool, schools, hospitals and gold fields are included in few neighborhoods exceptionally.

As a conclusion it is possible to understand real estates produce highly quality houses in highly quality residential neighborhoods. But what we have to be clear here is, the quality objective affects affordability. From discussion with developers and previous studies, it is revealed that real estate houses are not accessible for civil servants and most of the city's residents by which they met only the housing need of upper section of the society, Diasporas, international institutions/NGOs employees and

business men. It is possible to understand from discussion with developers 70-80% of their customers are Diasporas. Diasporas buy houses for different reasons:- to use them as future residence and as investment good/ the expected rent yield of the houses attracted diasporas to invest on houses in the foregone years/. As Wubishet (2007) indicated in his study on the feature of real estate form of housing development on case studies of three developers, most of the buyers of real estate houses are Diasporas who do not necessary reside in the country. But the lesson indicated that relying on this section of the society which is not more than 2 % of the society is not justice and sustainable. Foreign shocks and economic crises can affect the potential demand from Diasporas as it is experienced in 2008 following world economic crises initiated by United States real estate market recession. During that period, the previously steady stream of foreign based buyers in the Ethiopian real estate market abruptly came to a halt and existing contracts were being abandoned in some instances by foreign based buyers. What is surprising is, no developer constructs low cost houses for low income people though the city government grants land freely for low cost houses construction. Hence the sector should consider the lower and middle segment of the market in order to insure sustainability of the sector. Standards based on western practice are too expensive for most households in the city to fulfill. It is possible to say the quality standard and durability efficiency outsets affordability.

Other weakness of the existing neighborhood is absence of mix of villa and apartment which prevents social mix of residents as villas which is targeted for high income group is developed in the outskirts expansion zone while aspartames are built in transitional business areas. This creates polarized group and reduce the beauty of the city and the possible socio economic benefit expected from mixed neighborhood.

4.5 Developers Construction Practice

This section deals with construction practice of developers with regard to time utilization and regulatory compliance of developments. It examined developers' effectiveness of time utilization based on primary data obtained from developers while it uses city's survey study to analyze illegal activities existed in the sector.

In order to know their effectiveness of time utilization, developers are asked on the amount of houses faced construction delay. Their response shows that there is significant delay both in construction start up and finishing. About 2421 number of houses, 69 % faced construction start up delay while 2667

houses, 76 % could not be completed on planned time. As their response indicated in the table below, they raised shortage of construction materials(87% of the responses) and regulatory rigidities as main cause for construction start up delay and client's payment delay(69 % of the responses) & shortage of construction materials(75 % of the responses) as main reasons for finishing delay. They also mention shortage of skilled man power, regulatory rigidities, occurrence of rainy season as causes of construction delay. From discussion with developers and their response on the impact of construction delay, it is possible to understand that the shortage of construction material coupled with ever increasing construction material price bring cost over run and loss of trust and good will by their customers. From site visit and observation, the researcher could notice there is pronounced construction lag. Many construction projects around CMC i.e Summit, Marriot and Yerer cites have been prolonged for many years while some of them are terminated.

Table 3.10 Developers' response on causes of construction delay

causes of construction start up delay	Number of response	Response rate
client's payment delay	2	12.5 %
shortage of construction materials	14	87 %
Financial problems	1	6 %
Regulatory rigidities	10	62.5%
causes of construction finishing delay		
client's payment delay	11	69 %
shortage of construction materials	12	72 %
Financial problems	3	18.75 %
Regulatory rigidities	3	18.75 %

With regard to legal compliance of construction practices, this survey used 2002 survey report of the city administration. The report indicated that there is series and multidimensional problem of informalities and illegal developments. According to the survey result, only in bole area 28 out of 67 developers did not start any construction development by which about 11,006,423m2 land is withdrawn

from the market. Totally about 1197294m² land / 47 sites left idle in all sub cities due to developers' default. Like wise 8 in yeka and 5 in Nifas silk Lafto subcities left sites idle. According to the information obtained from AACG land and building permit authority officials developers speculation is main reason for this while problem of construction material (high price and un availability), lack of infrastructure and financial problem also mentioned as supplementary reasons.

The report also indicated that about 14 developers with a total land holding of 360119m² transferred their land holding to third parties/other developers by selling above the negotiation price intends to exploit excess profit. This reveals that inefficient developers involved in the sector to speculate land values.

The office mentions speculation motives, unsolved legal problems related to compensation and boundary demarcation, and absence of infrastructure for these problems of speculation and construction delay.

The developed sites also faced series informality problems which can be expressed in four forms. (i.e informal construction of service type houses, sell of vacant land, illegal land occupation , and construction on illegal settlements). According to the survey result, about 11074 houses transferred issued for service type and un developed vacant plots; Where as 4 developers carried out illegal developments by conquering about 31277m² vacant land illegally by which totally about 500,000 square meters of plot has been held illegally by real estate developers. If the city would have leased the 2 million square meters against an average price of 3,000 birr per square meter it would have gained over 6 billion birr.

It is possible also to understand that significant number of developers has defaulted to pay the lease payment and transfer houses with out capital gain tax (sales tax). The city government lost about 4, 3120,138.20 birr from 19 developers.

All these results indicated there is series degree of violations of regulations. All these informal developments are the result of poor administration follow up and supervision. Weak monitory and development control gives a room for illegal house constructions

According to Addis Ababa officials, the administration reclaimed over 2 million square meters from real estate developers that failed or refused to start construction within eighteen months since the operation started. Furthermore, the city reclaimed more than 500,000 square meters of plot that has

been held illegally by real estate developers. The city accused them of using the plots as collateral for loans from banks; never starting construction; transferring the plots to a third party and using the plots to construct houses adjacent to their sites illegally, without the consent of the city, for other purposes. The administration further froze the title deeds of the plots.

CHAPTER FOUR

CONCLUSION AND RECOMMENDATION

4.1 Conclusion

The real estate sector has dual importance in countries economic development. In many countries the sector plays very important and vibrant role in facilitating economic growth. As a construction sector it contributes a lot for nations GDP growth as it has high linkage with different sectors and economic activities. In addition to this, the sector can also play an important role in alleviating the housing problem of the residents. On the other hand, as it is indicated in the literature, the sector needs partnership of different stakeholders like government, financial institutions, house buyers and the growth of other related sectors i.e construction sector. In the other way round it requires conducive working environment in order to be benefited from the sector. This study there fore dedicated to analyze the existing condition of real estate development.

This study showed that there is a well fledged and appropriate real estate regulations. Different real estate regulations like land lease, building code, land use, zoning and land development regulations are designed in such a way ensuring proper house and residential development. Whereas the foreseen problem concerning to these regulations is lack of implementation by real estate developers.

With regard to house production determinants, the following key results were summarized.

- The provision of supporting infrastructure and serviced land is a key component to the expansion of the real estate sector. As it is shown in the findings there is encouraging and satisfactory provision of serviced land. The city government effort in providing serviced land with advanced planning and coordination between the city/sub-city administration and infrastructure providers (e.g. electricity/water suppliers) was credible which could play its own role to promote the growth of the sector if it is possible to avoid the existing challenges related to cost of construction, standards and financing problems. The city government's decision to provide land by negotiation instead of auction is also important to relax and stabilize the price of land. On the other hand there is poor timely delivery of serviced land.
- Lack of finance, particularly long-term finance, is a widespread constraint facing private real estate sector. The consequences of inadequate finance bring effects on both sellers (who find it

difficult to start and complete their developments without adequate funding) and on buyers (who are often unable to secure sufficiently affordable mortgages). In the current financial environment, both project finance (for developers) and long-term mortgages (for buyers) remain scarce, implying that most real estate developers tend to use clients payment to finance a majority of their new constructions while most home buyers tend to pay in full for the purchase of their homes or apartments. Because of this, financing options in the sector are skewed to clients' payment covering up to 85% of investment capital. Unless the financial system can over time provide such long-term financing to both sellers and prospective buyers, affordability will remain difficult and the underdevelopment of the financial system will continue to act as a drag on what could otherwise be much faster and broader growth in the real estate sector.

- There is ever increasing construction material price which showed a 16 % average increase in the last five years. Besides this high material price, there was also construction material shortage. According to developers' response, this shortage and high material price was the result of low production capacity of the domestic construction industry and dependency on imported material. This construction material problem has resulted cost overrun and loss of customers' trust

With regard to affordability, the finding of this study has revealed that the houses are not accessible for majority of the city residents which represented by middle and lower income people. Different factors like lack of affordable finance, high cost of construction material, unaffordable house standards and house quality are reasons for this low affordability of real estate houses. Because of this, the real estate market skewed to far highest segment of the society i.e. Diasporas, country business men.

Concerning to Houses and residential pattern, the finding of this study proves that there is standardized and high quality house and residential development. Houses constructed by the sector are high quality ones which embodies high quality construction materials and construction technology. The houses accommodate the necessary housing services by all standards. The residential neighborhood commonly consists of open spaces, green areas, neighborhood road network, kindergarten, play grounds, shops & super markets. Whereas schools, clinics, swimming pools, tennis court included by high end residential neighborhoods.

The other key finding of this study is related to construction practice of developers which is evaluated according to their time efficiency of projects and regulatory compliments of developments. The finding

of this study has revealed that there is significant construction delay and illegalities in real estate development.

One more finding of this research is real estate developers act as a consultant firm involved between government and customers; they took land from government and use customers' capital and resemble contractor firms to construct houses .This means they operate on behalf of customers; what customers lack is land and construction system which can be solved by organizing home buyers in to cooperative association and providing land to construct their dwellings. By the existing practice Urban households required to buy housing from large well capitalized formal developers who themselves purchase land use rights from the Municipal government which gives developers a market power to decide the land price implicitly and the house market in general.

4.2 Recommendation

Based on main findings of the study, this research forward the following recommendations as masseurs to be taken by responsible parties to solve existing problems faced the sector and improve its efficiency as well. Although there is high and concentrated demand on one hand and high degree developers' involvement in the sector in the other hand, the real estate house production and rate of development is very weak due to supply side constraints and un affordability of the houses. In order to improve sectors efficiency and sustainability these demand and supply side challenges should be solved. Hence this paper recommends the following main points as solutions for these challenges.

1) Government standard should consider the existing financial capacity of citizens. With medium income 571 birr it is not possible to afford for houses constructed by European standards hence government should implement affordable regulatory standards which relaxes the quality of construction material and house standards.

2) The domestic construction industry should expand and government should lift import restrictions and import tariff on construction materials in order to lower construction cost. Houses & buildings for business & residential purposes are not entitled to exemption from customs tax payment according to custom authority tax exemption declaration while it let manufacturing sectors to freely import various spare parts up to 15 percent of the value of the investment capital good/equipment. These measures are important to relax the cost of construction and improve houses affordability.

Interventions should focus on improving the quality and increasing the production and use of local building materials. Institutions and regulations should focus on improving the efficiency of the contractors supplying low-cost, local building materials and technologies. The domestic industry limited on the supply of bricks, split stone, sand, is commendably labor-intensive but could benefit from some organization, assistance with transportation and marketing, quality control and development of greener processes. It is important to develop sustainable materials sources. Appropriate building regulations are required, taking account of the materials available and the socio-economic conditions of urban Ethiopia. Once appropriate building regulations are developed, building control should be increased to improve the standard of new dwellings up on the socio economic condition of the city residents.

Traditional construction techniques in Ethiopia involving the heavy use of bricks, hallow concrete blocks , and cement in virtually every stage of the construction process are expensive, inefficient, and time

consuming. Indeed, it is quite striking that low-cost building techniques and materials are so under-utilized in the local market given the country's income levels and the need to provide cost-effective housing at a substantially faster speed and larger scale. Given this state of affairs, developers with cheaper and unconventional construction materials are bound to have significant advantages over competitors with respect to cost, efficiency, and delivery times. Promising prospects in these regard include the use of pre-fabricated boards (such as drywall and gypsum), and locally available environmentally friendly building materials.

3) There should be affordable financing system. Affordable financing modalities are important to stimulate house demand. At the existing 13% average interest rate with very low available financial loan from commercial banks it is impossible for lower and middle income people to get loan for house purchase (this group deserve housing loan to make purchase).because of this housing finance problem, real estate houses be affordable only to high class communities which restricts also the potential market segment. In order to improve this problem and motivate house construction as well as address the housing demand, the government has to assess and decide on a number housing financing policies to improve the national housing situation, such as introducing a National Home Lending Program (NHLP); redirecting housing subsidies; increasing lending recovery rates ,introducing the private mortgage market by adopting a legal and regulatory reform program to safeguard lenders; enhancing lending to low income group through village micro-credit schemes; and improving the climate for attracting finance to the housing sector. The focus must be on the low-income majority and arrange house loan to channel for lower and middle income households through housing associations/cooperatives.; policies must be realistic about affordability and numbers. Long term public mortgage that allows long term payment period, smaller first installments & lowering interest rate are the modalities to facilitate affordable housing finance which can be done by mobilizing pension funds and saving and credit associations. Government can arrange long amortized low interest housing loan like the previous house and construction bank. Government can use pension funds to support mutual saving of house buyers .By this arrangement house buyer has to mobilize part of the house cost by himself and use government loan partially. It is also possible to arrange full government credit from pension funds to finance house buyers who can cover some percentage of down payments. It is important also to introduce private mortgage banks under government legal protection and safeguard.

It is possible to arrange long term public mortgage that allows long term payment period, smaller first installments & lowering interest rate by mobilizing pension funds and saving and credit associations.

4) It is also important to expand the sector and increase the competency of the sector in order to relax the price of house as it is obviously lack of competition and low stock flow compared to the accumulated demand pushes up the price of houses.

5) To increase affordability the following main recommendations are forwarded. The first recommendation is on the product type. It is possible to understand that real estate type of houses are highly standardized houses which accommodates many housing components (i.e dining room, family room, children room). Besides, houses are constructed using high quality construction materials. Which means the size of the houses with its components and construction material increases its price and reduce its affordability. As a result one option to increase affordability is to reduce house standards in terms of construction material, house components and house size. Government should relax house standards by plot size (50m²) and construction material standards which permit developers to use less costly durable construction materials like drywall and gypsum.

Other two recommendations related to house construction responsibility. The first scenario recommends developers to sell unfinished houses to enable house owners to finish their house by themselves according to their interests and by employing their labor. Zimbabwe housing program could successfully apply this strategy to solve the housing problem of the country. Because government construct half finished houses and permit house buyers to finish their dwelling by them selves, many residents can construct their dwellings using family labor and less investment (Brunn S, 2007)

One more solution in this regard which needs policy recommendation is to organize residents in cooperative housing and provide land by negotiation. It is possible to empower private house buyers to build their house by organizing under cooperative housing and provide financial credit. By this arrangement it is possible to transfer developers' advantage of subsidizing land obtained through negotiation. By the existing practice it is not possible to ensure the subsidy is transferred to house buyers as direct land provision to developers gives them market and legal power to decide the value of land implicitly. To increase affordability it is advisable to provide land directly to cooperative users and enter in to use rights to agree with developers to build their houses on their own area. The land policy and lease law should permit this type of sharing benefits of developer and land owner. Allocating urban land only to developers has a risk of transferring un proportional rights from public bodies to private developers (it is important to remind here land provision for residential purpose to cooperatives and private home builders has ceased since 2007).In countries like Chili, private developers act only as a contract firm to

construct houses and have not legal right to use land. Government provides land directly to housing associations at a reasonable price and defined basic standards for their dwellings. Housing cooperatives call developers for bidding to develop and construct houses. By doing so individuals through cooperative associations can use their land and bargaining power to possess better affordable houses (Denise D, 1997).

It is important also to relax cost of construction materials, arrange affordable financial system and increase citizens' income to increase houses affordability.

6) One major finding of this research is there is multi faced and high degree illegal practices in the sector which can be expressed in form of informal construction of service type houses, sell of vacant land, illegal land occupation , default to pay lease payment and transfer houses with out capital gain tax (sales tax) and construction on illegal settlements. As the report indicated the city government dismantles and returned about 2 million m² land to its land bank from illegal developers. This resulted due to poor land administration and development control. In order to avoid speculations and rent seeking behaviors in the sector, the city administration should implement transparent land administration and make regular development control and early decisions on illegalities. It is important to remind here tax and land are the two corruption vulnerable areas in the country.

In addition to the above mentioned recommendations, there should be reforms on construction material production sectors , financial institutions, lower housing costs, increase house production and income of households (long term).from the experience of other developed countries, citizens habitation problem solved fast when a countries per capita GDP reaches between 1000 and 3000USD.with the current rate of nations economic growth the good days are coming by which the sector will have profitable contribution in solving housing problem and play leading economic role.

In general although there is huge space for development of the sector due to high rate of urbanization at 2.9%, high economic growth and associated demand, and increasing and concentrate housing demand in the city, the real estate sector can not expand enough to exploit these opportunities due to supply factor constraints (construction material and financial problems) and houses un affordability. In order to ensure sustainable development of the sector these problems have to be clearly addressed by responsible bodies; from government side, it should bring reforms on construction material production and financial sector to stimulate house production where as developers should consider lower and middle segment of the society in their projects.

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Annex 1. Research Questionnaire for sample house developers

Dear respondent: This questionnaire is designed for academic purpose; so that all responses and information you provided is confidential to be used only for academic research consumption. The research aims to probe the performance, challenges, opportunities and prospects of the real estate sector. The outcome of the study is envisaged to benefit policy makers, the government, researchers, the academia, and the real estate developers. So you are kindly requested to give correct answers for all questions presented in this questionnaire as your honest cooperation has great importance for the success of the research.

Part I. Background information about the company

1. Name of the company _____
2. Construction site of the organization/company
Sub city _____ kebele _____ special name _____
3. The year when the organization starts the business _____
4. Amount of land the organization received for construction in hectare /m²

Part II. Questions related to house and residential pattern

Instruction: put a "√" mark in the boxes of each choice relevant to the question for the following questions and specify your answer on the space provided if you have any different or additional answer.

1. Type of houses constructed by your company

Type of house				
a	Condominium by room size and area/m2	Unit cost	Unit price	quantity
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
b	Villa by plot area/m2	Unit cost	Unit price	quantity
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

2. How many apartment houses your company constructed (including houses under construction) in each of the following storys

- a. G+2 apartment _____ b. G+3 apartment _____
c. G+4 apartment _____ d. G+5 apartment _____
e. More than G+5 apartment _____

3. Which neighborhood services your construction accommodates?

- a. Play grounds ☐ b. Open spaces ☐
c. Neighborhood road networks ☐
d. Schools ☐ e. Clinics ☐
f. Other, please specify _____

Part III Questions related to developers' construction practice and construction environment

A. Construction practice

1. Do you face delay on construction start up?

- a. yes ☐ b. No ☐

2. If your answer for question 1 is yes, how many houses faced delay on construction start up out of total houses in each of the following house types?

- a. Apartment _____ out of _____ b. Villa _____ out of _____

3. If your answer for question 1 is yes again, what are the main reasons for construction start up delay?

- a. Lack of finance ☐
b. Lack and absence of construction Materials ☐
c. Strictness of regulatory standards ☐
d. Clients' payment delay ☐
e. Other, please specify _____

4. What was the impact of construction start up delay on your Work /business?

5. Do you face delay on construction finishing up on the dead line?
 a. Yes ☐ b. No ☐
6. If your answer for question 5 is yes, how many houses are delayed out of total?
 a. Apartment _____ out of _____ b. Villa _____ out of _____
7. If your answer for question 5 is yes again, what are the main causes of construction delay?
 a. Clients' payment delay ☐ b. Regulatory rigidities ☐
 c. Financial problems ☐
 d. Lack and absence of construction material ☐
 e. Other, please specify _____
8. In what way this delay affects your construction projects, if it exists?

9. Which major activities are given for other organizations?
 a. Construction work ☐ b. Land development ☐
 c. Other, please specify _____
 d. None ☐

B . Finance

1. Source of investment for financing projects

	Source of capital	Amount in eth. birr
a	Financial institutions loan, specify the name of the institution	
1		
2		
3		
4		
5		

6		
7		
8		
b	Customer's payment	
c	Investor's own capital	

2. What type of payment modalities your organization follows
 - a. Full advance payment ☐
 - b. Scheduler payment supported by mortgage ☐
 - c. Scheduler payment without mortgage ☐
 - d. Other, please specify _____
3. Which type of mortgage arranged by your organization?
 - a. 0% (no mortgage) ☐
 - b. 25% ☐
 - c. 30% ☐
 - d. 50% ☐
 - e. other _____
4. Can you explain the type of mortgage in terms of interest rate and payment? Period?
5. Do you think there is attractive financial loan service for your customers?
 - a. Yes ☐
 - b. No ☐
5. If your answer is no for question 5, which factor do you consider as the main problem and challenges for your customers related to mortgage?
 - a. Un availability of mortgage ☐
 - b. High interest rate of the mortgage ☐
 - c. Short payment period ☐
 - d. Other, please specify _____

C. Construction material

1. What are the main problems related to construction material if exists
 - a. Material shortage ☐
 - b. Price escalation ☐
 - c. Late delivery ☐
 - d. Other, please specify _____

2. How do you rate construction materials in the given criteria?

	availability				
	VG	G	S	L	VL
cement					
Window glass					
Aluminum					
Steel sheets					
Galvanized sheet					
Reinforcement iron					
Electrical equipments					
Hollow concrete block					

NB. VG=Very good G=Good S=Satisfactory/F=Fair L= low VL=Very low

D. Land

1. How do you rate land in the given criteria?

Availability of serviced land					Timely delivery					Land Price fairness				
VG	G	S	B	VB	VG	G	S	L	VL	VG	G	S	L	VL

NB. VG=Very good G=Good S=Satisfactory L= low VL=Very low

2. What are the main problems you faced related to land?

3. Which of the following infrastructures are provided to your construction site?

- a. water supply ☐ b. Electricity ☐ c. Road ☐ d. Telephone line ☐
e. Other please specify _____

E. House price

1. Do you think the houses are affordable at least for middle income group?

- a. yes ☐ b. No ☐

2. If your answer for question 18 is no, what is the reason for this?

a. Absence of mortgage ☐ b. high cost of land ☐

c. Un availability of future payment strategy ☐

d. High cost of sight development ☐

e. Other please specify _____

Annex 2. Open ended questions for sample developers

Dear respondent: This questionnaire is designed for academic purpose; so that all responses and information you provided is confidential to be used only for academic research consumption. The research aims to probe the performance, challenges, opportunities and prospects of the real estate sector. The outcome of the study is envisaged to benefit policy makers, the government, researchers, the academia, and the real estate developers. So you are kindly requested to give correct answers for all questions presented in this questionnaire as your honest cooperation has great importance for the success of the research.

1. Can you list housing services provided by your organization?

2. What are the main problems existed in the sector?

What recommendations you suggest to improve the sector?

3. Do you think the houses are affordable for middle income groups? If your answer is no, what are the major reasons tackle its affordability?

4. Do you construct special houses for low income group? What makes them low cost if you do so?

and what makes them impossible if you don't provide low cost houses targeted for low income people?

5. What main problems you faced related to land and what was its consequence?

6. What main problems you faced related to construction material and What was its consequence?

7. Do you face any regulatory constraints? If you faced so, what are the main regulatory constraints and in which way and to what extent they affect your house development work

8. Are you comfortable with the lease system? What problems you have face so far related to lease? Please mention them

9. What problems you have faced so far related to land supply? How do you see

the land supply system and availability of service land?

Annex 3. Checklists for interview with sample developers

Dear respondent: This questionnaire is designed for academic purpose so that all responses and information you provided is confidential to be used only for academic research consumption.

1. Which housing typologies your company constructs more? What is the reason behind?
2. For which social group you constructed houses?
3. Do you think that the property buyers are genuine buyers or they purchase for mere speculation?
4. Can you explain the incentives provided to the sector? What incentives do you think need to be given especially to real estate developers in order to enhance the private sector house development?
5. What variety of houses your company constructs? In which way one type differ from the other? And which type of house is most and least demanded respectively?
6. What problems you have faced so far before and after starting construction /house development? What do you recommend to solve these problems?
7. How do you see the role of private real estate sector in solving housing problem of the city and for over all city development; what do you recommend to improve its performance?

Annex 4. Open ended questions for land development and building permit authority

Dear respondent: This questionnaire is designed for academic purpose so that all responses and information you provided is confidential to be used only for academic research consumption. The research aims to probe the performance, challenges, opportunities and prospects of the real estate sector. The outcome of the study is envisaged to benefit policy makers, the government, researchers, the academia, and the real estate developers. So you are kindly requested to give correct answers for all questions presented in this questionnaire as your honest cooperation has great importance for the success of the research.

1. Name of the officer _____
2. Position _____
3. What mandates and responsibilities your office has in real estate
3. Is there special treatments or incentives for developers build low cost houses (housing for lower income groups)? If there, what are these special treatments

4. What are the main housing quality standards? What are their intended objectives behind these standards? What quality problems your office found out from constructed houses and villages? How do you see the quality of real estate houses?

5. How do you see the existing real estate concerned regulations? What problems have you noticed related to their appropriateness and effective implementation?

Are there any minimum residential /neighborhood facilities? If there, please specify

6. How do you see the status of land provision to real estate developers? what problems the office has faced related to land?

7. How far your office satisfies the land request by developers?

8. How do you see the real estate development in the city?

Annex 5 Questionnaire for land development and building permit authority officers, experts and supervisors

Dear respondent: This questionnaire is designed for academic purpose; so that all responses and information you provided is confidential to be used only for academic research consumption. The research aims to probe the performance, challenges, opportunities and prospects of the real estate sector. The outcome of the study is envisaged to benefit policy makers, the government, researchers, the academia, and the real estate developers. So you are kindly requested to give correct answers for all questions presented in this questionnaire as your honest cooperation has great importance for the success of the research.

1. Name of the employ _____
2. Position _____
3. What is your responsibility in real estate development? _____
4. How do you see the ongoing real estate development in the city? _____

6. How do you rate effectiveness of developers' practices on the following criteria?

	Very good	Good	Satisfactory	low	Very low
Raw material quality					
Time utilization					
Construction quality					
House quality					
Residential area quality					

7. What quality problems do you observe from the existing house developments concerning to house and residential neighborhood?

8. What type of misconducts and illegal developments you observe from developers' practices?

9. What comments and suggestion you forward to improve the sector?

10. How do you rate the implementation effectiveness of the following regulations and standards by house developers?

regulations and standards	VG	G	S	L	VL
Zoning					
Building height					
Density standard					
Land use regulation					
Building codes					

NB.

VG=Very good G=Good S =Satisfactory L= low

VL=Very low

Annex 6. Checklist for interview with land and Infrastructure development officers and experts

Dear respondent: This questionnaire is designed for academic purpose; so that all responses and information you provided is confidential to be used only for academic research consumption. The research aims to probe the performance, challenges, opportunities and prospects of the real estate sector. The outcome of the study is envisaged to benefit policy makers, the government, researchers, the academia, and the real estate developers. So you are kindly requested to give correct answers for all questions presented in this questionnaire as your honest cooperation has great importance for the success of the research

1. How do you see the real estate development in the city?
2. Does your office satisfy the land request by developers? How to extent the authority satisfy the land request of developers?
3. What are the main objectives of the private residential real estate development? Do you think the objectives are met? If your answer is no, give reason for this?
4. What are the main problems existed in the sector?
5. What are the strong /weak sides of the developers?
6. What are the strong /weak sides of the sector?
7. How do you measure the role of real estate developers in solving the housing problem of the city and for over all development of the city
8. How frequently the office undertake construction supervision and what consequence measures are taken for illegal constructions?
9. What building, land use planning, building quality standards set by the office?
11. Is there any type of regulation violations? Can you mention them?
12. What are the main problems existed in the sector? What do you recommend to improve the overall development of the sector?

Annex 8. Average price of different types of houses

Type of house	Dev. 1	Dev. 2	Dev. 3	Dev. 4	Dev. 5	Dev. 6	Dev. 7	Dev. 8
1br apartment	402713	570103		418643	308254	398022	401632	
2br apartment	584225	1045649		626571	571550	604097	670194	696118
3 br apartment	855401	1438352		1045823	650554	711049	915200	1138579
250 villa	1963886		2164050		2328705	1997510	1863480	2379118
500 m2 villa	2730148		4064176	3625747	3012328	3375999	3013375	3453003
1000 m2 villa	4525869		7938980	6252308	5977542	5744356	4946912	

Dev.9	Dev.10	Dev.11	Dev. 12	Dev.13	Dev.14	Dev. 15	Dev. 16	average price
495000				323150	315472			427680.556
707356	751368	445057		630068	597311	524322	649722	650257.714
	1275026	612034			705423	638528	1057510	831795.583
2523406		1756800	1849780			1535680	2645824	1939394.92
3025459	4043025	3526098	3952843			2034608	3426024	3329448.69
	6732045		5525804					5959227

Annex 9 Average monthly payment required for different types of houses at market interest rate, 13 % and 20 years amortization period with 50% common mortgage amount

Type of house	monthly payment required
1br apartment	2505
2br apartment	3809
3br apartment	4873
250 m2 villa	11361
500 m2 villa	19504
1000 m2 villa	30250

Annex 10 Distribution of houses by different categories

Villa Houses by plot size	Number of houses	Percentage
250m2	223	43%
500m2 villa	202	39%
750 m2 villa	58	10%
1000 m2 villa	41	8%
Total	524	100%
Apartment houses by room size		
1 br apartment	322	11%
2 br apartment	1287	44%
3 br apartment	819	28%
4 br apartment	497	17%
Total	2925	100%
Apartment houses by plot size		
50-70	2223	76%
70-90	497	17%
90-110	205	7%
Total	2925	100%
Apartments by number of storey		
G+3	5	5%
G+4	70	69%
G+5	9	9%
G+6	7	7%
>G+6	10	10%
Total	101	100%